



Smokefree Skills:  
An assessment of maternity workforce training

## Foreword

Time and again as this report was developed, stakeholders, midwives, obstetricians and others would agree that the issue of smoking in pregnancy was extremely important. The oft repeated phrase was that this importance “goes without saying”. This, it seems, is the crux of the problem.

Smoking in pregnancy causes unnecessary stillbirth and sudden infant deaths. It impacts on a baby’s development in the womb meaning that they are more likely to be born underweight or at risk of other health problems. This report has found that health professionals know all of this. They are taught this at midwifery and medical schools and see the impact in their clinical practice. What they find less clear is how they could, or should, be helping individual women with the problem.

Midwives are clear they are not shying from this conversation because it is too confronting or awkward for them, but because they simply do not know what advice they should provide. Many obstetricians are unsure what their role is altogether. There is a myth among these professionals that they are expected to deliver complicated, lengthy support to a woman to quit smoking. But NICE guidance is clear that there are a few straightforward things they need to do:

- Ask and record smoking status, verifying it with a carbon monoxide monitor
- Advise women briefly about the importance of quitting
- Act to refer them to quit services

Where professionals are trained to deliver this short conversation with women in a way that motivates them to seek help or quit on their own, they can have a positive impact on the health of mothers and babies both now and long into the future.

It is that simple, but so important. Without well trained staff who understand not only the harms from smoking but how to communicate these to women, then it will be an uphill battle to bring the rates of smoking in pregnancy in this country down further.

This report makes clear that the importance of smoking in pregnancy cannot ‘go without saying’. This means embedding training of these skills into undergraduate curricula and examinations, and following this up with regular post-graduate training.

Of course, training and skills are only one part of the story, and as we seek to make sure that all our maternity staff are able to fulfil their role we must continue to ensure that the systems are in place to support them; from appropriate recording systems and monitoring equipment through to the quit services that women need to be referred to.

However, if we can get these first conversations right with pregnant women, if we can ensure that from the time they seek care in their pregnancy to the time they give birth, and beyond, every professional provides the same measured advice, we will be on the way.



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## **Executive summary**

### **Overview**

This report has been produced by Action on Smoking and Health (ASH) in collaboration with the Smoking in Pregnancy Challenge Group. It seeks to identify the current barriers to full training of the maternity workforce to enable them to deliver NICE guidance on smoking in pregnancy and sets out recommendations for change.

The findings and recommendations have been informed by the insights of stakeholders from Government, the voluntary sector, and professional groups, an overview of existing research, focus groups, and a national survey of midwives and obstetricians.

While many of the findings may be relevant to other UK nations, the assessment and recommendations relate to midwives and obstetricians in England.

### **Key findings**

#### **Importance of a trained workforce**

- Smoking is the leading modifiable risk factor for poor pregnancy outcomes and addressing it is a national priority for maternity services.
- All health care professionals who come into contact with pregnant women who smoke have a role to play in addressing smoking, but they must be supported through appropriate training.

#### **Existing training**

- There is a common assumption among key stakeholders that knowledge and skills to address smoking are embedded in both training and practice of health professionals. They are not. As such, addressing smoking is unlikely to receive the priority it warrants as the leading modifiable risk factor for poor pregnancy outcomes.
- Many midwives and obstetricians do not feel they have adequate training or knowledge to address smoking in pregnancy. While most obstetricians and midwives have received training on the harms of smoking at some point, practical skills, such as delivering simple behaviour change techniques and very brief advice, are not being effectively taught.
- While training relating to smoking in pregnancy does feature in undergraduate midwifery and medical syllabuses, knowledge gained is rarely tested in assessments. Medical curricula often fail to include practical action necessary to address smoking.
- Publication of NICE guidance alone is not sufficient to bring about change. Guidance, with associated actions, needs to be communicated through training.

#### **National mandating of training**

- There is currently limited scope for mandating training in undergraduate curricula and in training of postgraduate/post-registration workforce. There are a number of relevant national initiatives and upcoming reviews of curricula, training, and standards for undergraduates and postgraduates which could be levers to achieve change.

## **Local barriers**

- While training to address smoking in pregnancy could lead to long term resource savings, existing pressures on staff time are reducing opportunities for training.
- There is confusion surrounding the actions required to address smoking by health professionals. Midwives and obstetricians are deterred from addressing smoking due to the mistaken belief that in doing so, they are then expected to support a woman through her quit attempt. In actuality, professionals are only expected to administer carbon monoxide (CO) monitoring, deliver very brief advice, and make a referral for specialist support.
- Many midwives and obstetricians see addressing smoking as an issue only for midwives, however all professionals need to reinforce and ensure consistency of messages, and deliver very brief advice to maximise the chances of engagement with specialist services and of positive outcomes.

## **Facilitators to training**

- There is a clear appetite for training amongst both midwives and obstetricians. Professionals are keen to improve their skills particularly in relation to practical actions to take when encountering a pregnant woman who smokes.
- Most professionals see their current employer as key to providing training and believe training should be delivered through protected time at work and not in their own time.
- A variety of methods for training appear to be acceptable to midwives and obstetricians to address smoking. Consideration needs to be given to methods beyond e-learning modules as these will not suit all professionals or contexts.

## **Recommendations**

### **Training requirements**

- All midwives and obstetricians should be trained so that they:
  - o have the knowledge and skills to undertake practical action to address smoking, such as CO monitoring and referral to smoking cessation services;
  - o are able to have a brief and meaningful conversation to increase the likelihood of a positive outcome.
- Training should reach all midwifery and obstetric staff so that they can provide a consistent message for women.
- Training should be embedded in both the undergraduate and postgraduate setting.

### **Nursing and Midwifery Council**

1. Include reference to knowledge and skills for addressing smoking in pregnancy in the new pre-registration standards for midwives which are currently under development, and any post-registration standards that may come into effect in future.

## **General Medical Council**

2. Include elements related to addressing smoking, as the leading modifiable risk factor for morbidity and mortality, in the Medical Licensing Assessment.

## **NHS England/Public Health England**

3. Ensure that training related to addressing smoking in pregnancy is promoted at a national level in particular, through current mechanisms such as the Maternity Transformation Programme.
4. Take action to promote effective local pathways and support local co-ordination for addressing smoking in pregnancy that include appropriate training of local maternity staff by NHS Trusts. The Local Maternity Systems may be an effective facilitator for this activity.
5. Develop a short training resource, for example a video, that can be circulated to trusts for inclusion in mandatory in-service training for midwives, induction for rotating medical staff and during multi-professional training events, as a baseline for all staff that can be supplemented with other methods as necessary.
6. Participate in the consultations for current and upcoming reviews pertinent to training of the maternity workforce and ensure that the importance of training to address smoking in pregnancy is highlighted.
7. Explore the current and potential role of other relevant health professionals who provide care for pregnant women, such as maternity support workers, health visitors, nursery nurses, ultrasonographers and family nurse practitioners, and the scope for improving any training for them to address smoking in pregnancy.
8. Work with NHS Trusts to ensure that up to date resources are made available to front line staff on options for pregnant women who smoke including e-cigarettes, for example the resources produced by the Smoking in Pregnancy Challenge Group.

## **Royal College of Midwives**

9. Continue to promote training related to smoking in pregnancy, such as the i-learn module Very Brief Advice on Smoking for Pregnant Women, to membership.
10. Via workforce representatives, monitor the level of support midwives are obtaining to address smoking in pregnancy and advocate for optimising this support.
11. Participate in the consultations for current and upcoming reviews pertinent to training of the maternity workforce and ensure that the importance of training to address smoking in pregnancy is highlighted.

## **Royal College of Obstetricians and Gynaecologists**

12. Include training to address smoking in pregnancy in the specialty training curriculum which is currently being reviewed.
13. Include assessment of knowledge and skills related to addressing smoking in pregnancy in the Objective Structured Clinical Exam for the MRCOG.

14. Consider a training resource, either using novel or available resources, to support learning and ensure that the obstetric workforce outside of specialty training can access training related to addressing smoking in pregnancy.
15. Explore CPD accreditation for any learning resources related to addressing smoking in pregnancy.
16. Participate in the consultations for current and upcoming reviews pertinent to training of the maternity workforce and ensure that the importance of training to address smoking in pregnancy is advocated.

### **Royal College of General Practitioners**

17. Continue to ensure that the current review of the training curriculum includes elements to address smoking in general, and smoking in pregnancy, wherever relevant.
18. Develop an online learning resource on addressing smoking, which includes smoking in pregnancy.
19. Explore the role of examination in relation to assessment of knowledge and skills related to addressing smoking, including smoking in pregnancy.

### **Midwifery schools**

20. Embed training to address smoking in pregnancy in undergraduate curricula.
21. Continue to include theoretical knowledge related to smoking in pregnancy, as well as practical aspects such as CO monitoring and referral for stop smoking support. Ensure that behaviour change techniques such as motivational interviewing and very brief advice are included to connect the two in a meaningful way.
22. Assess these competencies to ensure that learning has been effective.

### **Medical schools**

23. Embed training to address smoking in general in their undergraduate curricula.
24. Continue to include theoretical knowledge related to smoking in general, as well as practical aspects such as CO monitoring and referral for stop smoking support. Additionally, include behaviour change techniques such as motivational interviewing and very brief advice to connect the two in a meaningful way.
25. Ensure that implications of smoking and pregnancy are covered during Obstetrics and Gynaecology attachments.
26. Assess these competencies to ensure that learning has been effective.

### **Local organisations**

27. NHS Trusts must provide training for staff working in maternity to address smoking in pregnancy including practical aspects such as CO monitoring and referral for stop smoking support, alongside simple behaviour change techniques such as very brief advice.

28. NHS Trusts must ensure that protected training time is used for this, with particular consideration given to mandatory in-service training for midwives, induction for rotating medical staff and multidisciplinary training opportunities.
29. Clinical Commissioning Groups must commission to ensure that care pathways for pregnant women meet NICE guidance PH26 on smoking in pregnancy and after childbirth which includes training of maternity staff to an appropriate level.
30. Local authorities must work collaboratively with local NHS systems to ensure joined up provision of services for pregnant women who smoke and to promote and support the need for appropriate levels of training of maternity staff.

### **Third sector organisations**

31. The Smoking in Pregnancy Challenge Group and its members must continue to advocate for a fully trained maternity workforce with respect to addressing smoking in pregnancy.
32. Participate in the consultations for current and upcoming reviews pertinent to training of the maternity workforce.
33. Efforts could be made to make the existing NCSCT on-line training module, Very Brief Advice on Smoking for Pregnant Women, available via the NHS eLFH platform to further increase access to this resource.

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## Introduction

In March 2012 the Smoking in Pregnancy Challenge Group was set up in response to the then Public Health Minister's challenge to the Public Health Community to identify ways in which progress could be made to reduce the number of women who smoke during pregnancy. The group is a collaboration of royal colleges, professional organisations, charities and academia with a common goal to address smoking in pregnancy.

From the outset training was seen as a key priority, where gaps in the knowledge and skills of professionals were undermining outcomes. In its first publication, [Smoking Cessation in Pregnancy: a call to action \(2013\)](#), the Challenge Group outlined seven themes in which action should be taken to reduce the prevalence of smoking in pregnancy. Training was identified as an important theme and seven recommendations were put forward clarifying the action required in this area. A review of the recommendations in 2015 ([Smoking Cessation in Pregnancy: a review of the challenge](#)) found poor progress in relation the recommendations on training. In this publication the Challenge Group set out refreshed recommendations (Appendix 2) and identified 7 priority areas for action, of which one specified that 'training of professionals to tackle smoking in pregnancy must be nationally mandated'.

As deficiencies in the training of health professionals continue to represent a barrier to achieving further progress, ASH, on behalf of the Smoking in Pregnancy Challenge Group, has carried out a needs assessment of training. This work was carried out to:

- Assess the training needs of midwives and obstetricians, as key members of the maternity workforce, with respect to smoking in pregnancy;
- Identify the levers for improving training for midwives and obstetricians related to smoking in pregnancy;
- Make recommendations to the key organisations involved to address the training needs of obstetricians and midwives related to smoking in pregnancy.

Although much of the data herein may have generalisability to other UK nations, the assessment and recommendations relate to midwives and obstetricians in England.

## **The scale of the problem**

### ***Harms of smoking in pregnancy***

Smoking in pregnancy is the leading modifiable risk factor for poor birth outcomes.

### **Impact on the fetus**

In 2015 the stillbirth rate in England and Wales was the lowest it had been since 1992, at 4.5 per 1000 total births.<sup>1</sup> However, in global comparisons, the UK's annual rate of reduction has been 1.4% per year since 2000 compared with 4.5% in Poland and 6.8% in the Netherlands. In 2015 the UK stillbirth rate ranked 24th out of 49 high income countries.<sup>2</sup> Smoking in pregnancy increases the risk of stillbirth, in some studies by 30-50%.<sup>3 4 5</sup> Clearly, as the leading preventable cause of stillbirth, targeting smoking is paramount for reducing the stillbirth rate. Smoking in pregnancy is also associated with increased perinatal and neonatal deaths<sup>4</sup> and increases the risk of miscarriage by approximately one quarter in some studies<sup>6</sup> or double in others.<sup>7</sup> Smoking is associated with a significant reduction in birthweight.<sup>8 9</sup> This itself is a risk factor for stillbirth, as well as long term health conditions later in life such as increased risk of obesity, diabetes and cardiovascular disease.<sup>10</sup> Preterm birth is also increased in pregnant women who smoke, with some studies estimating the risk to be as much as doubled.<sup>11 12</sup>

Smoking is now the leading risk factor for sudden infant death syndrome (cot death)<sup>13</sup> with some evidence that the increase may be as high as four-fold. It has also been linked to specific birth defects<sup>14</sup>, behavioural problems,<sup>15 16</sup> asthma<sup>17</sup> and other disorders.

### **Impact on the mother**

Maternal health is also affected by smoking as it is the leading preventable cause of morbidity and mortality. Around half of smokers will die from a cause related to smoking, and on average smokers die 10 years earlier than non-smokers.<sup>18 19</sup> This clearly has significance for both women who smoke and their families.

### **Health inequalities**

Smoking in pregnancy is a leading cause of health inequality. It causes higher rates of stillbirth, premature birth, low birth weight and sudden infant death in babies born to mothers from disadvantaged groups compared with the general population<sup>20</sup> and has been estimated to account for 38% of the inequality in stillbirth and 31% of the inequality in infant deaths.<sup>21</sup>

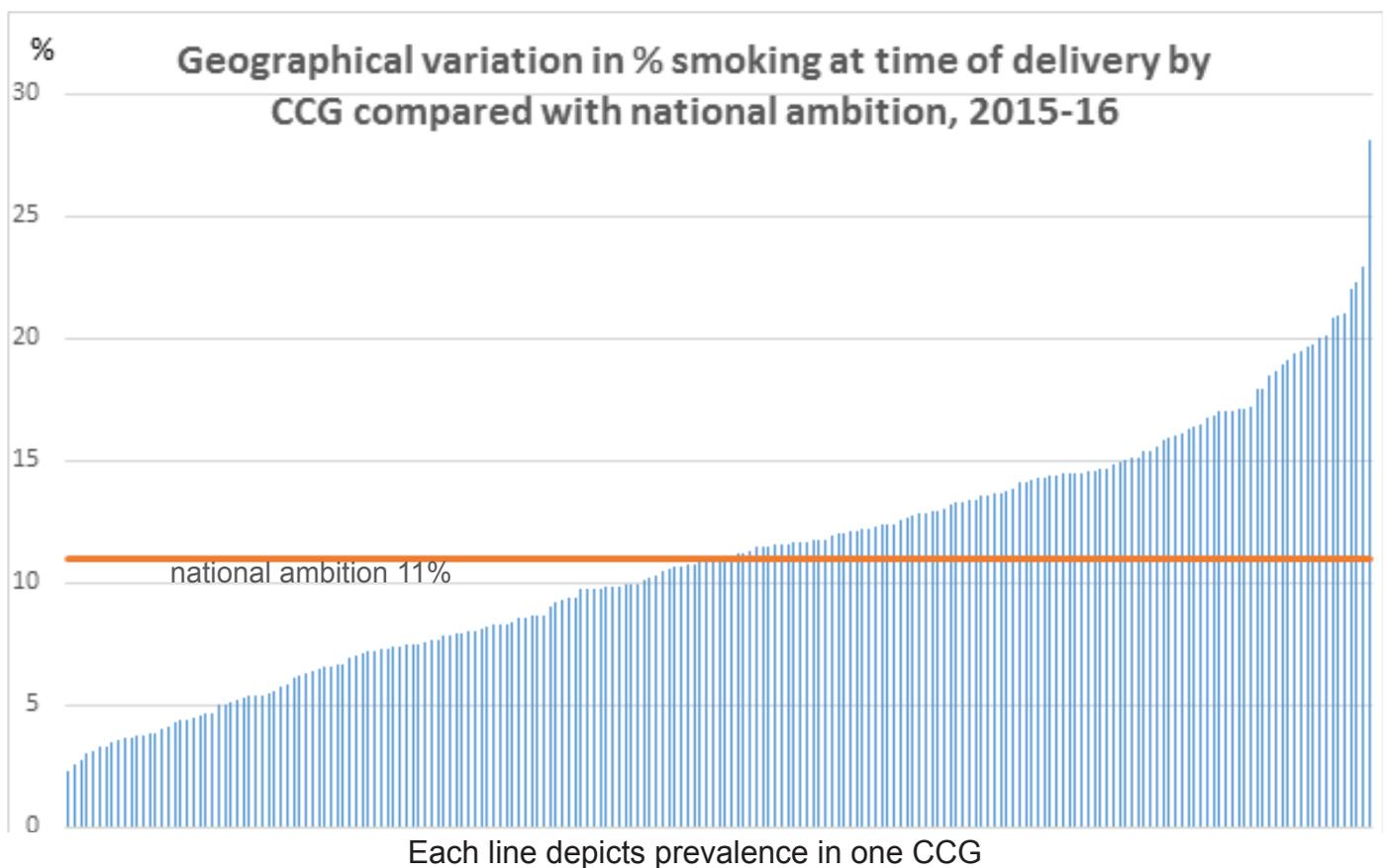
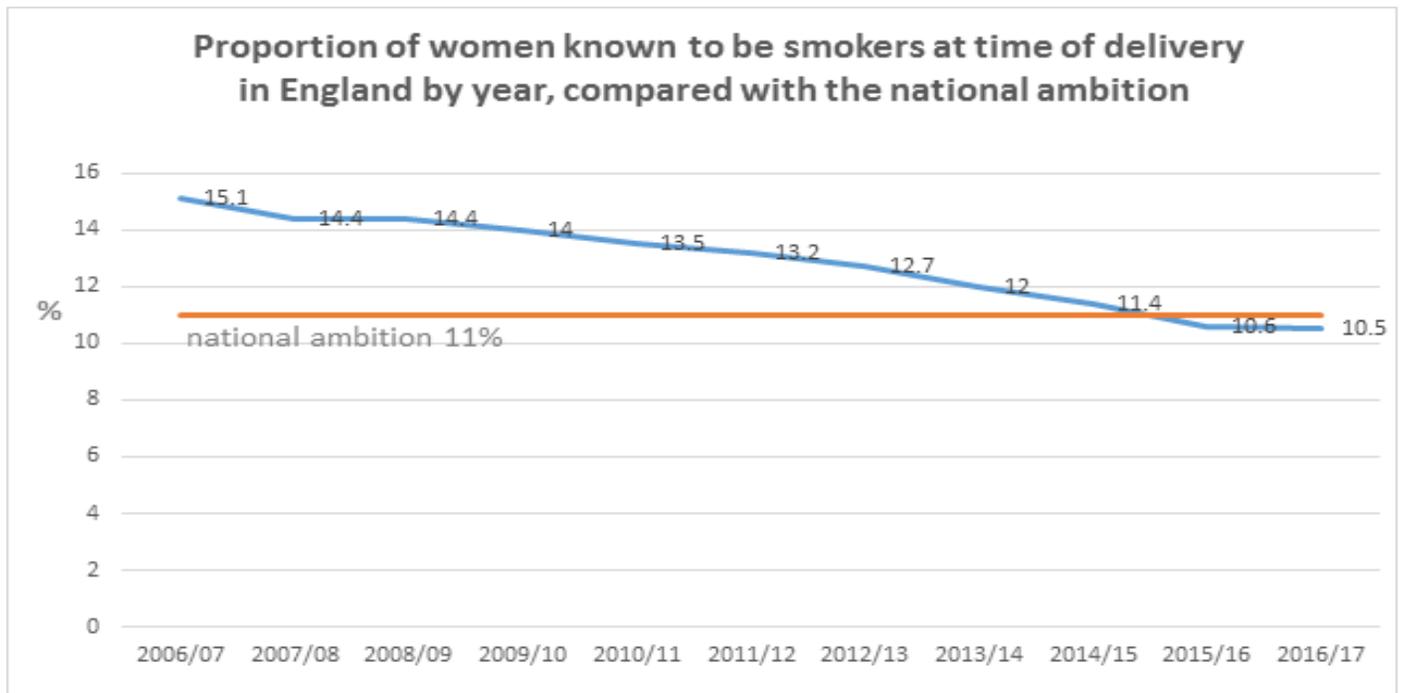
### **Impact on children as they grow**

Second hand smoke also has a deleterious effect on health, particularly for children in whom increases in lower respiratory tract infections, asthma, wheezing, middle ear infections, sudden unexpected death in infancy and invasive meningococcal disease have been reported.<sup>22</sup> This has implications for both the newborn babies and existing children of women who smoke.

### **Smoking in pregnancy rates in England**

Whilst on average progress has been made to achieve the Government's national ambition of smoking at time of delivery rates of less than 11%, with a reduction from 14% in 2009/10 to 10.6% in 2015/16, progress has stagnated with a rate of 10.5% in 2016/17 and great variation by area.

In 2016/17, rates varied from 2.3% in NHS West London and 2.5% in NHS Richmond to 28.1% in NHS Blackpool. Around half of Clinical Commissioning Groups did not achieve the national ambition of 11% or less.<sup>23</sup>



## **The Current Policy Landscape**

As the leading modifiable risk factor for poor birth outcomes, smoking in pregnancy is currently attracting substantial national interest. As such the onus is on healthcare professionals to take action to address it, but front-line professionals need support from the organisations that provide their education and employment to support them with appropriate training.

### **The Secretary of State's national maternity ambition**

In November 2015, the Secretary of State for Health announced a national ambition to halve the rates of stillbirths, neonatal and maternal deaths and brain injuries caused during childbirth by 2030, with a 20% reduction by 2020.<sup>24</sup> This was included in the Government's mandate to NHS England for 2016-17<sup>25</sup> and again for 2017-18.<sup>26</sup> Given the status of smoking as the leading modifiable risk factor for stillbirth, this ambition is difficult to achieve without addressing smoking.

### **The Still Birth Care Bundle**

In March 2016, NHS England published *Saving Babies' Lives, A care bundle for reducing stillbirths*<sup>27</sup> to support providers, commissioners and professionals. It identified four elements recognised as evidence-based or best practice to support a reduction in stillbirth and early neonatal death. Element one of this bundle relates to reducing smoking in pregnancy. Specifically, it outlines carbon monoxide (CO) testing of all pregnant women at antenatal booking appointment and referral, as appropriate, to a stop smoking service/specialist, based on an opt-out system. Whilst personnel involved are not specifically mentioned, a large proportion of the responsibility for this would fall on midwives who commonly conduct booking appointments.

### **The Maternity Transformation Programme**

The report of the National Maternity Review chaired by Baroness Julia Cumberlege was published in February 2016 as *Better Births*.<sup>28</sup> This refers to the risks associated with smoking in pregnancy and supports the stillbirth care bundle. The recommendations from Better Births are being implemented through the Maternity Transformation Programme, led by NHS England. Supporting an increase in smokefree pregnancies is specifically incorporated into the activity of workstream nine of the Maternity Transformation Programme (Improving Prevention and Population Health) as well as having relevance across the other work streams of the programme.

Recommendation 5 of Better Births<sup>28</sup> relates to multi-professional working between midwives, obstetricians and other professionals.

It specifically states that those who work together should train together and calls on the Nursing and Midwifery Council and the Royal College of Obstetricians and Gynaecologists to review education to ensure that it promotes multi-professionalism. Furthermore, multi-professional training should be a standard part of professionals' continuous professional development, both in routine situations in emergencies.

### **The Tobacco Control Plan**

In 2011, the government's Tobacco Control Plan for England<sup>29</sup> contained a national ambition to reduce rates of smoking in pregnancy to 11% or less by the end of 2015. Given the achievement of this target and the importance of smoking to birth outcomes, it is envisaged that any refreshed tobacco control plan may include a further reduction in this ambition.

## The National Institute of Health and Care Excellence (NICE) Guidance

Guidance exists concerning the actions that should be taken to address smoking in pregnancy. The National Institute of Health and Care Excellence (NICE) is a non-departmental public body of the Department of Health responsible for providing evidence-based guidance on health and social care.

The NICE guideline on antenatal care for uncomplicated pregnancies states that at first contact with a health professional the pregnant woman's smoking status should be discussed along with concerns regarding stopping smoking and information provided regarding risks to the unborn child and second hand smoke.<sup>30</sup> It further recommends offering personalised information, advice and support on how to stop smoking; encouraging pregnant women to use local NHS Stop Smoking Services and helpline; monitoring smoking status; and offering smoking cessation advice, encouragement and support throughout the pregnancy and beyond. It also recommends discussing the risks and benefits of nicotine replacement therapy, particularly with those who do not wish to accept the offer of help from the NHS Stop Smoking Service. Clearly knowledge regarding both the risks of smoking and also options for treatment are required for health professionals to follow this guidance.

In its 2010 public health guideline PH26, *Smoking: stopping in pregnancy and after childbirth*<sup>31</sup> NICE makes several recommendations which concern, amongst others, midwives and other health professionals, alongside professional bodies that support them (Appendix 3, Table 1). Recommendation 1 entirely targets midwives. Not only does it encompass practical actions for midwives to take such as CO monitoring and referral to specialist services, it also includes information-giving including 'explanation' and 'discussion' surrounding the harms of smoking and action that is required.

Recommendation 2 indicates that all other professionals, including obstetricians and other members of the maternity workforce, have a responsibility to ask about smoking. This recognises that due to the inherent nature of dependence and behaviour change, success or engagement may not occur at first contact and multiple attempts to give support may be necessary. Although women are more likely to spontaneously quit smoking during pregnancy than at any other time, it has been found that multiple quit attempts are often necessary before a smoker successfully gives up smoking.<sup>32</sup>

Recommendation 8 targets, amongst others, professional bodies and organisations, and maternity services. Recommended actions for these organisations are to ensure that midwives who are not specialist smoking advisers should:

- assess and record people's smoking status and their readiness to quit
- know about the health risks of smoking and the benefits of quitting (level 1 training in brief intervention)
- know about the treatments that can help people to quit (level 1 training in brief intervention)
- know how to refer them to local services for treatment (level 1 training in brief intervention)
- know how to ask them questions in such a way that encourages them to be open about their smoking
- always recommend quitting rather than cutting down
- have received accredited training in the use of CO monitors.

The guidance states that it is the responsibility of these organisations (Appendix 3) to ensure that level 1 training is incorporated into pre and post registration midwifery training and continuing professional development (CPD). It also further states that all pre and post registration midwives and health care workers working with pregnant women who smoke, including obstetricians, should

be trained to the same standards as midwives who are not specialist smoking advisers. For these recommendations in full see Appendix 3.

NICE states that midwives are not advised to carry out brief interventions however that these skills should be used to initiate referral to stop smoking services.<sup>31</sup> According to NICE, a brief intervention involves oral discussion, negotiation or encouragement, with or without written or other support or follow-up. It may also involve a referral or signposting to further support.<sup>33</sup> These interventions are often opportunistic, typically taking no more than a few minutes. Very brief intervention or advice (VBA) is a behaviour change technique that is concerned with simply giving advice and signposting to further help. It follows an 'ask', 'advise' 'assist' ['or 'act' in other interpretations] sequence and can take as little as 30 seconds.<sup>33</sup> These are based on motivational approaches. Motivational interviewing has been described as a 'conversation style'<sup>34</sup> useful for behaviour change. Brief interventions have been shown to have a positive effect on influencing smoking behaviour.<sup>35 36 37</sup>

## **What do we know already? Literature review**

It is estimated that smokers are 4 times as likely to quit smoking if they use a stop smoking service.<sup>38</sup> There is evidence that if women stop smoking by the second trimester they have the same rates of stillbirth, prematurity and low birth weight as non-smokers.<sup>3 39</sup> Smoking at time of delivery data indicates that approximately 1 in 10 women continue to smoke during pregnancy<sup>40</sup> despite the fact that, during pregnancy, self-initiated quit rates are higher than at any time in a woman's life. Women who continue to smoke during pregnancy are therefore particularly in need of support. Of those who quit during pregnancy, a high proportion (47-63%) relapse within 6 months of delivery.<sup>41</sup>

Engagement of pregnant women who smoke with specialist stop smoking services can be poor, with standard rates of access to these services being as low as 12 – 20%.<sup>42 43</sup> Reasons for this are complex. Low referral rates by staff have been reported.<sup>44 45</sup> Causes for this have previously been explored and may include lack of skills and knowledge, a low desire for health professionals to address smoking due to concerns regarding damaging the professional–patient relationship, and beliefs that addressing smoking is likely to be ineffective.<sup>46</sup> This is compounded by difficulties in identifying smokers due to under-reporting by women caused by the stigma associated with smoking in pregnancy, and other barriers for women, such as personal worries or discomfort associated with using such services.<sup>47</sup>

### ***Benefits of training health professionals with respect to smoking***

The role of health professionals in addressing smoking is important. In a 2014 study, Butterworth et al<sup>48</sup> discovered that women were unlikely to access services themselves, however had often engaged when signposted by health professionals. Nevertheless, inconsistencies in information given by health care professionals regarding services have been reported.<sup>49 50</sup> Women receive mixed messages from a variety of sources, including amongst and between different professionals, which can lead to women being sceptical of both the risks of smoking and available interventions.<sup>51</sup> This has led to calls for improving training to facilitate provision of a consistent message between staff.<sup>46</sup>

There is evidence that training of health professionals in smoking cessation increases the likelihood of them addressing smoking.<sup>36 52</sup> This has been demonstrated in a range of personnel from medical students,<sup>53</sup> nurses,<sup>54</sup> paediatric workers,<sup>55</sup> and also midwives.<sup>44</sup> In many studies, this effect has either not been studied in relation to or not shown increased positive outcomes on smoking behaviour.<sup>36</sup>

However, a more recent Cochrane review found that, after training interventions, there was an improvement not only in performance by professionals of tasks related to smoking, but also in reductions in smoking prevalence.<sup>56</sup>

The available evidence on training and outcomes implies that training cannot be viewed in isolation and needs to be considered within a multifaceted approach to smoking cessation. This is supported by the effectiveness of a system-wide approach to addressing smoking in pregnant women which included training of midwives along with support across the clinical pathway.<sup>45</sup>

### **Format and content of training**

Whilst research has been conducted into the appropriate content of training programmes for smoking cessation advisors,<sup>57</sup> the optimal format and content of training for health professionals has not been determined. A recent systematic review concluded that it was not possible to construct an evidence-based recommendation for the most effective form of training and mode of

of delivery for tobacco and nicotine related training based on the available literature.<sup>58</sup>

Internationally tobacco education programmes show diversity in duration and intensity.<sup>59</sup> Carson et al<sup>56</sup> found that that training interventions that had positive outcomes had varying time lengths, from 40 minutes to several days. Some were delivered as a single session whilst other studies had repetitive delivery of the training at intervals.

Within this review,<sup>56</sup> the type and delivery of the training intervention was not uniform across the studies included. All training included counselling, either alone, or in combination with other interventions such as prescription of nicotine replacement therapy. It was delivered through one to one sessions, group sessions, or a combination of the two.<sup>56</sup> In other studies training was provided in the form of either tutorials or workshops, with methods within these including lectures, discussions, videos and role-playing.<sup>36</sup> In medical students a web-based training method which included tutorial and practical elements led to an increase in self-reported improvement in skills,<sup>53</sup> and in nurses attending a webinar in addition to receiving toolkits led to increased intervention and referral.<sup>54</sup> Web-based training has also been found to be effective in increasing intervention by paediatric workers.<sup>55</sup> One day face to face training was associated with an increase in referral rates to smoking cessation services by midwives.<sup>44</sup> Whilst they may have a beneficial effect on process outcomes, studies looking at printed educational material for health professionals have not shown a positive effect on patient outcomes.<sup>60</sup>

### **Evidence of training within undergraduate midwifery and medical schools**

Raupach et al<sup>61</sup> conducted a survey of 33 UK medical schools and obtained a 67% response rate. Whilst basic knowledge such as the health effects of smoking were taught in more than 90% of curricula, only 1 in 3 medical schools offered practical skills training in simulated or clinical settings. Moreover, knowledge and learning regarding smoking was included in summative assessments in only half of medical schools. Whilst missing data from 11 medical schools limits generalisation, these findings are concerning.

In midwifery schools, a similar survey was carried out of all 53 undergraduate midwifery schools in the UK.<sup>62</sup> Albeit with a lower response rate (55%) results were more encouraging, with all schools covering the harmful effects of tobacco use and the majority (83%) teaching brief intervention and ways to assist quit attempts. Nevertheless, less than one quarter of schools assessed students on their knowledge of smoking cessation and the lack of data from 24 midwifery schools means that these results may under or overestimate the prevalence of this training in undergraduate curricula overall.

### **Evidence of current levels of training**

Whilst there is data on inclusion of training related to tobacco in undergraduate curricula in the UK.<sup>62</sup><sup>61</sup> There is a lack of information on the level of training in post registration or post graduate health professionals. This is important, particularly as some may have qualified at a time when curricula were different or may have qualified abroad. This justifies carrying out an assessment of the current training status and training needs of midwives and obstetricians.

In a recent health technology assessment - qualitative research with a small sample of participants - some midwives indicated that whilst they had been invited for training related to addressing smoking, it was not mandatory for them. Some felt this was beneficial as staff could then choose training in areas of their choice, whilst others felt that this was a disadvantage as few people would choose this training.<sup>63</sup>

## **Currently available options for training**

### **The National Centre for Smoking Cessation and Training (NCSCT)**

The National Centre for Smoking Cessation and Training (NCSCT) is a social enterprise that provides training and assessment programmes for stop smoking advisors.<sup>64</sup> It also delivers training and assessment programmes to other health professionals. It delivers online resources which are freely accessible and free of charge. In 2016 the NCSCT launched an online training module, Very Brief Advice on Smoking for Pregnant Women.<sup>65</sup> This is now also available through the online training hub of the Royal College of Midwives (i-Learn).

### **Babyclear**

The Babyclear programme is an initiative pioneered in the North East of England which supports a system-wide approach to implementing the NICE PH26 guidelines. This includes two hour face to face training for midwives, whilst also providing training for other staff (for example stop smoking advisors and administrative staff) and support with pathways and materials. A study examining this programme found that referral rates more than doubled (2.5 times) in the first three months after this initiative was introduced. Quit rates doubled in women who smoked and babies were significantly heavier, and similar in weight to those born to non-smokers, in women who quit smoking.<sup>45</sup>

## Who are the key players? Population profiling and stakeholder engagement

### Midwives

Midwives are the backbone of the maternity workforce. Almost every woman will see a midwife during her pregnancy and midwives are experts in normal care. They are the first point of contact for pregnant women in secondary care and may also be the first point of contact with a health professional. In line with the vision set out by the Department of Health,<sup>66</sup> the RCM states in High Quality Midwifery Care<sup>67</sup> that midwives are crucial members of the public health workforce and calls for a more strategic approach to involving them in public health initiatives. It emphasises that every contact counts and that midwives should have the training, resources and time to ensure this is the case.

Midwives see women throughout pregnancy, conducting booking appointments in all antenatal women, and all further antenatal appointments in uncomplicated pregnancies. Women who have never delivered a baby are seen, on average, at ten appointments during pregnancy, whilst women who have delivered previously should be given seven appointments.<sup>30</sup> Midwives also care for women in labour and delivery, and carry out postnatal care. In 2013-14, there were 2,363,805 midwife episode outpatient appointments in England and, of cases where data was complete, 55.6% cent (294,700) of deliveries were conducted by registered midwives.<sup>68</sup>

As of September 2016 there were just over 21,000 fulltime equivalent midwives in England.<sup>69</sup> This is a rise of 1,560 since May 2010 and in September 2016, the number of full-time equivalent (FTE) midwives working in the NHS in England rose by 1,560. However, there are immense pressures on the midwifery workforce, with the most recent calculation by the Royal College of Midwives being that England is short of the equivalent of approximately 3,500 full-time midwives.

Workload is increasing and staff shortage has entered a vicious cycle. The staff leavers survey carried out by the RCM in 2016 found that lack of staffing, size of workload, and not having enough time to provide care were reasons that made midwives more likely to leave.<sup>70</sup> This report's recommendations seek to take into account the realities facing the current midwifery workforce. One in three midwives in England (33%) are now in their fifties or sixties.<sup>69</sup> Whilst this has clear implications for future workforce supply, it should also be considered in terms of the potential differences in learning styles across the breadth of the midwifery workforce when attempting to address training, in particular the extent to which online forms of training are appropriate for parts of the workforce who received their training before computers were widely used as part of care.

Midwifery training is in the form of a minimum three year degree course leading to a midwifery qualification. Registered adult nurses can also qualify through a shorter 18 month pre-registration midwifery short programme. The direct entry to a degree route became available after 1992. A proportion of practicing midwives have entered midwifery through the diploma route prior to introduction of the compulsory degree.

Midwives do not have structured post registration training as medical professionals do, although since 2016 they undergo a revalidation procedure to remain registered. Whilst all employees at NHS trusts are required to undertake statutory and mandatory training, midwives are also required to attend mandatory in-service training provided by their department. Whilst this may consist of 2 or 3 days' face to face training on a variety of issues related to midwifery practice, the content and length of training varies and is locally determined. Whilst many senior midwives have a core area in which they practice, many midwives regularly rotate in areas around their departments, for example postnatal, antenatal, labour ward and community areas.

Midwives are paid against a fixed pay scale (known as Agenda For Change). Newly qualified midwives are paid at Band 5, progressing to Band 6. Band 7 midwives are more senior midwives who may take on a team leader or specialist role. Midwives in consultant or managerial roles are often Band 8 and above.

## Obstetricians

Obstetricians are doctors who care for women in pregnancy, childbirth and the postnatal period. They are also trained in gynaecology. Obstetricians care for women with high risk or complicated pregnancies. In such pregnancies care may be shared between the obstetrician and a midwife or GP. Some women may have the majority of their appointments with an obstetrician rather than a midwife. Women with low risk pregnancies may also come into contact with obstetricians if they are referred to them by a midwife for an opinion, or if they suffer a minor complaint in pregnancy for which they attend the maternal fetal assessment unit or maternity triage department. In 2013-14, there were 2,705,024 outpatient appointments where obstetrics was the main specialty in England and, of cases where data was complete, 39.7% (210,574) of deliveries were conducted by a hospital doctor.<sup>68</sup>

Medical training lasts from 4-6 years depending on whether entry is as an undergraduate or postgraduate and whether an optional intercalated degree is chosen. After 2 years of general training - the foundations years - full registration is achieved and doctors may continue to specialty training in Obstetrics and Gynaecology (O&G). Standard specialty training in O&G lasts 7 years and comprises basic, intermediate and advanced levels. Trainees follow a core curriculum which is set by the Royal College of Obstetricians and Gynaecologists (RCOG) followed by advanced training modules.

The RCOG oversees the ePortfolio, which is used to record progress on the training programme such as the attainment of specific competencies. Exams are taken during the training program, which lead to membership of the Royal College of Obstetricians & Gynaecologists (MRCOG), the content of the exams is set by the RCOG in line with GMC guidance (see under General Medical Council). This training programme leads to a certificate of completion of training (CCT) and eligibility to practice as a consultant obstetrician and gynaecologist.

Doctors (such as associate specialists, speciality doctors, staff grades, trust grades) may also work in obstetrics & gynaecology without undertaking or completing the specialty training scheme. These doctors perform similar clinical duties however provide more direct clinical care with fewer additional responsibilities. Whilst consultants have permanent posts within an organisation, speciality trainees regularly rotate to other units, as may other doctors who are not on the training scheme. On changing trusts they would undertake a mandatory organisational and departmental induction.

RCOG census data provides an estimate of numbers of staff working in obstetrics and gynaecology. According to RCOG Census data in 2013 (which was more complete than 2014-15 data), there were 2225 consultant obstetricians and gynaecologists in post within a unit in England and Wales.<sup>71 72</sup> There were additionally 159 doctors working post CCT, 140 associate specialists, 551 staff grades and trust doctors, and 158 research fellows and academic trainees. At the time of the national maternity review there were 1,630 specialty trainees in obstetrics and gynaecology working in England (28). Other doctors who may work in maternity are foundation year (newly graduated) doctors or trainees on the General Practitioner training scheme, carrying out an attachment in Obstetrics & Gynaecology. The census estimates that in 2013 there were 465 foundation year and 822 GP trainees working within obstetrics and gynaecology.

## Significant organisations

### Undergraduate/Pre-registration Training

#### *The Nursing and Midwifery Council (NMC)*

The Nursing and Midwifery Council is the regulator for nurses and midwives in England, Wales, Scotland, and Northern Ireland. It approves education institutions and programmes, sets education standards to govern these, and sets the competences of nurses and midwives. It does not set curricula. Each approved education institution has autonomy to do this in line with NMC standards.

The NMC is responsible for revalidation of nurses and midwives. This is the process that professionals must follow post registration to renew their registration every 3 years. As part of this process, midwives and nurses must undertake 35 hours of continuing professional development (CPD), of which 20 must include participatory learning (involving interaction with one or more other professionals) relevant to their scope of practice. There is no particular CPD prescribed by the NMC.

The NMC last published standards for pre-registration midwifery education in 2009.<sup>73</sup> These are a set of overarching standards to govern curricula. Within the standards, reference is made to generic skills relevant to smoking such as: determining and providing programmes of care and support for women that are appropriate for their needs; providing seamless care and, where appropriate, interventions, which promote their continuing health and wellbeing; referral of women who would benefit from the skills and knowledge of other individuals; and working collaboratively with the wider healthcare team and agencies.<sup>73</sup>

The standards also specifically reference contributing to enhancing health in relation to public health policies and local health strategies:

- identifying and targeting care for groups with particular health and maternity needs and maintaining communication with appropriate agencies;
- informing practice using the best evidence which is shown to prevent and reduce maternal and perinatal morbidity and mortality.

In the *Essential skills cluster*, 'Initial consultation between the woman and midwife', it is specifically stated that students should participate in explaining to women lifestyle considerations in relation to diet, smoking and drugs. For entry into the register students should be competent in recognising and advising women who would benefit from more specialist services. There is no mention of simple behaviour change techniques in relation to communication.

Competences for registered midwives have also been published by the NMC.<sup>74</sup> These generic competences align with the pre-registration standards above however without specific reference to smoking.

At the time of the stakeholder consultation undertaken for this report a review of midwifery pre-registration standards by the NMC was about to commence. This represents an important opportunity to ensure that pre-registration curricula align with the current priorities in midwifery practice, to recognise the importance of smoking on pregnancy outcomes, and to promote the generic skills that can be used to address it. Current personnel leading on this review are very much engaged with ensuring public health priorities, including smoking, are included in the standards. It is understood that at some point in the future, after the review of undergraduate

standards is complete, the arena of post graduate development of midwives may be reviewed.

### ***Council of Deans of Health***

There are currently 44 approved UK education institutions listed on the NMC website for 3 year or 18 month programmes for pre-registration midwifery. The Council of Deans of Health refers to itself as the representative voice of the UK's university faculties engaged in education and research for nurses, midwives and allied health professionals.<sup>75</sup> The Council does not have the ability to mandate the content of curricula for individual academic institutions.

As the collective voice of midwifery schools, the Council of Deans has a consultation and advisory role for issues relevant to undergraduate education, such as the review of pre-registration standards by the NMC. At the time of stakeholder engagement the Council of Deans indicated that they would be consulted regarding this upcoming review. The Council also has advisory groups to support their policy work and has formed one that concerns the 'future midwife'. In addition, the council was able to signpost the Challenge Group to the national group of Lead Midwives for Education (LMEs). The NMC requires that approved educational institutions appoint a lead midwife for education and use them for strategic liaison with external agencies, such as purchasers of education provision, for all matters affecting midwifery education.<sup>73</sup>

Presentation at a national meeting of LMEs revealed their appreciation of the importance of addressing smoking and there was a willingness to ensure student midwives were adequately prepared to address this. Discussion also revealed that there were real concerns regarding the utility of training when services to support people to quit smoking were being cut or reduced in many areas. In addition, there was interest in a ready-made resource for training related to smoking in pregnancy. This would facilitate inclusion as the demands on curricula were already high.

### ***Medical School Council (MSC)***

There are currently 33 undergraduate medical schools and 1 postgraduate medical school in the UK. The Medical Schools Council represents them collectively. Each school is represented on the council by their deans or faculty heads. Strategic aims of the council that are particularly relevant to this work include responding proactively to the development and change that characterises the interface between Higher Education and the NHS, facilitating the transition between undergraduate and postgraduate environments and optimising the quality of medical education, and to be a global leader in the assessment arena.<sup>76</sup>

The MSC has no mandate over medical school curricula, however it is a key organisation for consultation and advice for issues affecting medical school teaching and curricula. For example recent priorities have included working with the General Medical Council (GMC) in developing a UK Medical Licensing Assessment (UKMLA).

At the time of stakeholder engagement, discussion was initiated at one of the bi-annual meetings of MSC Education Leads regarding the potential for improving training of medical students on addressing smoking. Obviously whilst the smoking in pregnancy agenda is important, medical students inherently require a more general approach to smoking cessation training which can be applicable across specialities. Whilst some medical schools such as GKT School of Medicine require their medical students to undertake NCSCST stage 1 modules, in conjunction with additional elements in their curriculum, there is a wide variety of approaches and extent of coverage amongst medical schools. Clearly there are increasing demands on medical school curricula and feedback from discussions at the meeting was that a ready-made resource for training related to smoking would ease this burden.

## **Post graduate/Post-registration Training**

### ***The Royal College of Midwives (RCM)***

The Royal College of Midwives is the professional organisation and trade union for midwives, providing professional advice and support, clinical guidance and learning opportunities.

All elements of the college's mission statement, and the first two of its strategic objectives, are relevant to the principle of improving training related to smoking: promoting midwifery, quality midwifery services and professional standards, supporting members, and influencing on behalf of members and women. As the 'voice of midwives' the RCM is an important organisation for consultation and advice by external organisation on their training matters.

With respect to learning, the college contributes to disseminating information about professional midwifery practice in the form of news, clinical guidance and position statements. It acts as a repository for this information, which includes a specific public health resource for midwives. The RCM also hosts i-learn, an online learning platform which provides learning courses on a range of topics, as well as a portfolio. The National Centre for Smoking Cessation and Training (NCSCT) e-learning module 'Very Brief Advice' has been made available on RCM i-learn.

At the time of stakeholder engagement the RCM had around 45,000 members, of which 27,000 were using i-learn to some extent.

The RCM also has a network of workplace representatives who are attached to local providers. A proportion of these are Learning Representatives (LRs) who assist other members on their training and development needs, and promote and signpost opportunities to access learning for both colleagues and employers.

### ***The Royal College of Obstetricians and Gynaecologists (RCOG)***

The Royal College of Obstetricians and Gynaecologists (RCOG) is a professional organisation for those working in Obstetrics & Gynaecology (O&G). Its aim is 'to set standards to improve women's health and the clinical practice of obstetrics and gynaecology in the British Isles and across the world (77).' Its role includes developing the education, training and exam programme for doctors pursuing specialty training in obstetrics and gynaecology, as well as providing a continuing professional development programme for qualified O&G clinicians. As the professional organisation of obstetricians and gynaecologists it has a key advisory role in matters relating to women's health and maternity care.

One of the RCOG's strategic goals for 2017-20 is to improve women's health care through high-quality education, training and support of doctors throughout their careers. Within this, it has objectives including assuring the quality and resilience of all exams and education products, in particular the clinical exam and the new curriculum, and educating doctors and healthcare professionals to work with women to embrace healthy lifestyles.

As part of its third goal (to connect healthcare professionals, service users and partner organisations in order to radically improve women's health care both in the UK and globally), the RCOG has an objective to 'strengthen partnerships with organisations, healthcare professionals and service users to support public health strategies for women's health and the health of their babies.'

The RCOG's training curriculum is pursued by all doctors wishing to become O&G specialists. It includes an eportfolio in which the achievement of competencies on the training curriculum is recorded. There is also a requirement to pass the exam for membership of the royal college of obstetricians and gynaecologists (MRCOG) in order to complete training.

Within the core curriculum module on antenatal care,<sup>78</sup> knowledge criteria include health education, and alcohol and substance misuse, without an allusion to tobacco. To be able to conduct a booking visit is a competence on the curriculum. However, specific details within this are not outlined. There is also a competence "to be able to discuss the risk of stillbirth, manage fetal growth restriction and manage drug and alcohol problems in pregnancy". However, there is no specific mention of tobacco or smoking here.

A suggested resource is an e-learning module (known as a STRATOG module) on antenatal care.<sup>79</sup> In this module an essential reading article concerns smoking in pregnancy.<sup>80</sup> Amongst the sections within the e-learning module, there is also a tab on Nicotine and Pregnancy in which the content of the NICE guidance on CO monitoring is outlined. There are also sections on nicotine replacement and e-cigarettes. There is no specific information on practical aspects such as how to take a CO reading or how to use brief advice to refer to stop smoking services.

The RCOG's non-mandatory CPD programme is chosen by many to facilitate their CPD requirements for the GMC. On the RCOG CPD programme, 250 credits covering various categories must be attained during each 5-year cycle. The RCOG gives guidance on what is accepted for credits. There are no CPD resources specifically related to addressing smoking in pregnancy.

At the time of stakeholder engagement, a review of the specialty training curriculum was commencing. It was indicated that there was likely to be an emphasis on life course, health promotion and championing women's health. Addressing smoking therefore fits well in this context, although it must be recognised that a broader remit than pregnancy is also required as obstetrician gynaecologists also encounter the effects of smoking outside of pregnancy for example in relation to early menopause, prolapse, cancer risk, and contraception.

The RCOG was very much engaged with this agenda and suggested promotion of issue within their membership through key conferences during the year, as well as the possibility of examination of the subject within a clinical station in the MRCOG exam, in order to enhance learning possibilities.

### ***The General Medical Council (GMC)***

The General Medical Council is the regulatory body for doctors in the UK. It is responsible for registration and revalidation of doctors. Revalidation is the process by which all licensed doctors are required to demonstrate fitness to practise in their chosen field every 5 years. Part of the requirement of this is that doctors must undertake enough continuing professional development to remain up to date and fit to practise in their work and must be able to demonstrate this at their appraisals. It does not specify a required number of hours or credits necessary for this.

Alongside its regulatory role, the GMC also sets professional standards as well as setting standards for undergraduate and postgraduate training. In 'Promoting Excellence' (effective January 2016) it sets overarching standards for both undergraduate and postgraduate medical education.<sup>81</sup>

*Outcomes for Graduates*<sup>82</sup> sets out the knowledge, skills and behaviours that are required of all new medical graduates. These are high level standards with which medical schools must comply when they set their curricula. Outside of this, the GMC does not have the authority to dictate what is included in the individual curricula. Although curricula are designed to meet the specific requirements of Promoting Excellence, the document specifies that they should be developed and implemented so that medical students are able to achieve the learning outcomes required for graduates.<sup>81</sup>

Learning outcomes in *Outcomes for Graduates* relevant to smoking cessation can be found in Table 1. Whilst it acknowledges that these do not contain mandatory requirements or impose uniformity in approaches to assessment, the GMC has produced supplementary advice on assessment for medical schools.<sup>83</sup> Specifically, it mentions that objective structured clinical examinations (OSCEs) are a good tool to ensure that students are assessed in relation to their engagement with patients, covering communication, empathy and sensitivity.

*Table 1 Outcomes relevant to smoking cessation in Outcomes for Graduates*<sup>82</sup>

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Discuss psychological aspects of behavioural change and treatment compliance.</li><li>• Identify appropriate strategies for managing patients with dependence issues and other demonstrations of self-harm</li><li>• Discuss the principles and application of primary, secondary and tertiary prevention of disease.</li><li>• Communicate appropriately in difficult circumstances, such as when breaking bad news, and when discussing sensitive issues, such as alcohol consumption, smoking or obesity.</li></ul> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

The GMC approves curricula and assessments set by Colleges, faculties, specialty associations and other organisations for postgraduate training against the standards for postgraduate curricula published in 2017.<sup>84</sup> This publication contains a requirement that postgraduate curricula should describe generic, shared and specialty-specific outcomes, as capabilities, expected levels of performance and the breadth of experience that are required to complete training.

In Promoting Excellence it is stated that for postgraduates, assessments must be mapped to the requirements of the approved curriculum.<sup>81</sup> Postgraduate curricula must incorporate the generic professional capabilities framework, which encompasses generic outcomes and content across all postgraduate medical curricula.<sup>85</sup> They should also provide guidance on the appropriate educational methods and approaches required to achieve the outcomes.

At time of stakeholder engagement the Generic Professional Capabilities framework - a framework of essential capabilities for all doctors regardless of specialty, which was drawn up in partnership with the Academy of Medical Royal Colleges - was in the final stages of drafting and a consultation procedure had been completed.<sup>85</sup> Discussions with the GMC were initiated to ensure that, given the relevance of smoking as the leading modifiable risk factor for morbidity and mortality, the document could be reviewed so that reference to smoking was included in it, specifically within Domain 4 which outlines the capabilities in health promotion and illness prevention.

The document now contains reference to addressing smoking as a general principle within Domain 4 and states that doctors in training must be aware of and demonstrate: “applying the principles of promoting: public health interventions such as targeting smoking cessation, reducing obesity and the harm caused by alcohol abuse”.

The GMC is currently developing plans to establish a UK-wide Medical Licensing Assessment (MLA) so that those applying for registration with a licence to practise medicine in the UK can meet a common threshold for safe practice.

Action on Smoking and Health, a challenge group member, has contributed to the consultation for plans for this supporting standard inclusion and examination of evidence-based smoking cessation knowledge and skills in all UK medical school curricula.

### ***Health Education England (HEE)***

Health Education England is a non-departmental public body (NDPB) which assimilated the responsibility for workforce planning, education commissioning and education provision which had previously been the remit of Strategic Health Authorities (SHAs) and their Deaneries.<sup>42</sup> It discharges this function through Local Education and Training Boards.

In its framework agreement with the Department of Health,<sup>86</sup> HEE's general function is to support the education, training and development of the NHS and the public health workforce. Whilst much of its remit is related to workforce planning and commissioning, it discharges its functions related to education by allocating NHS and public health education and training resources, and accounting for the outcomes achieved, promoting high quality education and training, and appointing and supporting Local Education and Training Boards LETBs, holding them accountable for the resources they invest in education, training and development.<sup>86</sup>

Seven objectives were set out by the Government in the most recently available HEE mandate 2016-17.<sup>87</sup> Within these it was specified that HEE would work with partners to support the multi-professional training recommendations from the National Maternity Review, create a catalogue of 'approved' training programmes for maternity units across England, ensure education and training materials are available to support the national ambition for maternity, and roll out funding for agreed programmes for Trusts to improve quality and safety within maternity services (later released as the Maternity Safety Training Fund).<sup>88</sup> At the time of stakeholder engagement, the priority for the catalogue and maternity safety training fund was felt to be intrapartum care, which precluded entry of smoking cessation related training into the catalogue.

HEE does not have the ability to mandate training, however within objective 6 of its mandate it is specified that it would work alongside NHS Improvement and NHS England to look at developing a system where local employers take more responsibility for ensuring the post registration training of and investment in their staff.

Part of the remit of HEE is leading a programme to improve statutory and mandatory training through e-learning for all NHS staff. This training covers 10 areas of statutory training and is based on the core skills training framework.<sup>89</sup> This training is offered at an organisational level and is distinct from the mandatory in-service study days provided for midwives at departmental level, which are locally determined.

HEE has established a technology enhanced learning (TEL) programme and has developed NHS e-learning for health (e-LFH), an online hub which delivers e-learning that is free of charge for the health and social care workforce.

At the time of consultation, discussions were initiated as to whether NHS e-LFH could be utilised as a platform for the currently available Very Brief Advice (VBA) training for midwives. Unfortunately, the software is incompatible. As its major role is in workforce planning and commissioning of staff, the potential role of HEE in training of midwives and obstetricians related to smoking appears limited.

## ***The National Health Service (NHS)***

NHS England leads the NHS in England. Within the NHS, quality of services is monitored by the Care Quality Commission (CQC). NHS Improvement (NHSI) is responsible for overseeing trusts and supporting them to provide high quality and financially sustainable care.<sup>90</sup> Notably, as part of the Maternity Transformation Programme, NHS Improvement is the lead for the Maternal and Neonatal Safety Collaborative, a three year programme to support improvement in the quality and safety of maternal and neonatal units across all trusts in England.<sup>91</sup>

There are 136 NHS trusts in England providing maternity care.<sup>28</sup> Trusts are required to provide Statutory training which comprises core training in health and safety awareness for all new staff. This is often based on the Skills for Health 'Core Skills Training Framework'.<sup>89</sup>

Trusts also provide mandatory training for all staff which is determined locally, based on local risks and needs and to comply with local or national policies or frameworks. Departmental or role specific training may also be required, such as in-service study days for midwives. Trusts are able to set their own policies regarding training which then become a contractual obligation for staff.

## ***Public Health England (PHE)***

Public Health England (PHE) is an executive agency of the Department of Health whose remit includes protecting and improving health & wellbeing, reducing health inequalities and building the capacity and capability of the public health system.

It achieves this through the provision of advice, support and partnership working with other agencies, research, knowledge & intelligence and the delivery of specialist public health services.<sup>92 93</sup> It is also responsible for discharging the statutory functions of the Secretary of State related to Public Health.

Smoking in pregnancy is a major programme of work for PHE, led by the Tobacco Control team, working closely with NHS England, Royal Colleges and health charities, to support implementation of NICE guidance (PH26), including action to improve training for maternity staff and communications with both professionals and pregnant women.

PHE is closely involved with the Maternity Transformation Programme, leading the Improving Prevention and Population Health work stream and directly contributing to a number of others, including Supporting Local Transformation, Promoting Good Practice for Safer Care and Transforming the Workforce. The Improving Prevention work plan includes detailed actions associated with increasing the number of women having a smokefree pregnancy and a commitment to consider the recommendations in this report.

PHE has no mandate over training of the health professionals.

## **Other key members of the maternity workforce**

### **General Practitioners**

General practitioners (GP) are often the first point of contact for women when they find out that they are pregnant. They provide access to maternity services and may provide 'shared' care with secondary providers during pregnancy. National guidance recommends that at first contact with a health professional, information-giving and discussion should incorporate lifestyle advice, including smoking cessation.<sup>30</sup> Whilst GP involvement in maternity care has reduced, a consensus statement between the RCM, RCOG and RCGP advocates minimum requirements which include

providing counselling and health promotion in early pregnancy, including competence in management and appropriate referral for smoking cessation management.<sup>94</sup>

The role of general practitioners with respect to smoking is particularly key in view of the evidence that a woman who stops smoking by the second trimester normalises her risk of stillbirth, prematurity and low birth weight.<sup>3 39</sup>

At the time of stakeholder engagement, the RCGP were in the middle of a review of their training curriculum. The college is extremely engaged with the smoking agenda and has reviewed their population health, and sexual and reproductive health modules. They also indicated that there is appetite for an online learning resource related to smoking which includes reference to smoking in pregnancy.

### **Other important members of the maternity workforce**

Stakeholder engagement and literature review indicated that there are many more, important members of the maternity workforce who see pregnant women during pregnancy and postnatally who can have influence on smoking in pregnancy or the maintenance of smoke free homes. In some cases these professionals may even have contact with women before they see a midwife. In particular, maternity support workers, health visitors, nursery nurses, family nurse practitioners and ultrasonographers are key personnel who interact with and have impact on pregnant women. These professionals are outside the scope of this report however review of their role and training related to this issue is clearly an important area for continuing research.

## **What did we find out?**

### **Focus groups and quantitative survey result**

#### **Focus groups of Midwives and Obstetricians**

We carried out focus groups of midwives and obstetricians with the following aims:

- To inform the content of a national survey for Obstetricians and Midwives regarding training related to smoking in pregnancy
- To explore the training needs of midwives and obstetricians with respect to addressing smoking in pregnancy

Separate focus groups were held for midwives and obstetricians due to their differing roles and training structures. Focus groups for midwives were held close to the venue of the 2016 RCM conference in Harrogate during the conference lunch break. Thus recruitment was primarily from the pool of conference delegates. Participants were recruited via the Royal College of Midwives and through emails to Heads of Midwifery that were circulated to staff. Two focus groups were held, one with nine and one with ten participants. There was geographical spread in terms of place of work among midwife participants, with representation from the North West, Yorkshire and Humber, West Midlands, South West, South East and London. All midwives who participated in the focus groups were Band 6 (14 midwives) or Band 7 (5 midwives).

Focus groups for obstetricians were held at an RCOG Intrapartum Fetal Surveillance meeting at the College in London. The meeting was chosen after checking with the organisers that the geographical spread and range of job titles of the pool of delegates was representative. Participants were recruited through emails sent out to the delegates via the RCOG. Two focus groups were held, one with six and one with seven obstetricians including trainees, consultants and specialty doctors. Amongst the obstetric focus groups there was geographical spread of workplace, with representation from the North West, Yorkshire and Humber, West Midlands, East of England, South East and London. There were 4 consultant obstetricians, 1 associate specialists, a post CCT holder, 2 senior specialty trainees (ST6/7), 2 more junior specialty trainees (ST1/2), 2 speciality doctors and a clinical fellow. One focus group occurred prior to the conference and one in the lunch break. Participants were provided with refreshments and each received a cash incentive in thanks for their participation.

The topic guide (Appendix 5) for the focus groups comprised questions on current practice, previous training, training needs, training preferences and barriers to training. This was informed by the literature review and stakeholder engagement discussion. Two external reviewers (an academic and a tobacco lead) also gave comments on the topic guide.

Thematic Analysis was carried out on all transcripts. This revealed several themes which were common to both obstetricians and midwives. Relevant details within these themes are outlined below.

#### **The importance of smoking in pregnancy**

Both midwives and obstetricians unequivocally recognised the importance of smoking in pregnancy as an issue. In both midwife and obstetrician groups, parallels were made between addressing smoking and other conditions and initiatives which receive higher priority in terms of training and awareness or are more pervasive, for example diabetes in pregnancy and the baby friendly breast-feeding initiative. Midwives in one group concluded that smoking was seen as less of a priority than other issues such as intrapartum fetal monitoring, and that most midwives would

prioritise online fetal monitoring training packages over a smoking in pregnancy related package if these were mandatory.

Midwives expressed that often the women they saw had so many social issues that this lessened smoking as a priority for both themselves and the women.

*"..I agree it does get pushed down with domestic violence and health problems. It does become a lower issue. It shouldn't be, but it does feel like that"*

*Band 6 Midwife*

## **Roles and Responsibilities**

When asked whose role it was to address smoking in pregnancy, both midwives and obstetricians immediately identified the midwife as having a key role in this area.

*"We think it's our remit, it's part of the midwife's job."*

*Band 7 Midwife*

In one group of obstetricians multiple members felt that this was primarily a midwife's role, or that their role was peripheral to that of the midwives.

*"There's so much to get through in the antenatal clinic appointment that actually you kind of assume that it's this...err...it's being dealt with by the community midwives."*

*Obstetric Registrar*

*"I think primarily we should all be prompting them, but the reality is that community midwives probably have a much better bond with them, so I agree it should be everyone's decision but actually the driver should be a community midwife."*

*Obstetric Registrar*

*"....then at the end they come to see us. We are probably the highest level in the pyramid so you are so much restricted as to how many things you can address. So do you really need to be trained in these things? Do you have the antenatal consultation time to go through these things? Or can somebody else take that responsibility which is going to be more cost-effective?"*

*Post CCT Obstetrician*

Many went on to recognise that 'everyone' in contact with pregnant women carried some responsibility, including primary care givers such as GPs, although they recognised that the practicalities of this were difficult.

*"They haven't got the time to do all this. Who does pre-conception care? Nobody does pre-conception care."*

*Consultant Obstetrician*

Amongst both obstetricians and midwives, views that addressing smoking was the job of someone else were pervasive. Even midwives who recognised their key role, or who broached the issue of smoking in pregnancy with women themselves, went on to state that this issue was more appropriately dealt with by others including specialist midwives.

*"In a beautiful ideal world it [the role] would be ours but um, it's very difficult to do that with everything else you've got to do as well, so I think a specialist midwife probably is the best person to be dealing with pregnant women [who smoke]"*

*Band 6 Midwife*

*“As a community midwife I do obviously do the CO<sub>2</sub>\* monitoring and I do talk about as much as I know about the dangers of smoking in pregnancy but I, I kind of feel that I’m limited with my total knowledge about statistics and things. So I almost feel as if once it’s been passed over to the smoking cessation people erm they’ll, I kind of feel that I’ve done that bit. I do sort of mention it throughout the antenatal appointments but I don’t think that I do it as in depth as I should do.”*  
Band 6 Midwife

Midwives expressed a desire for more involvement from obstetricians, in some cases outlining how this could be useful for both themselves and the women they see.

*“We need to enforce each other don’t we, to sort of be all singing from the same hymn sheet... When I refer women because I think they’ve got an IUGR [growth restricted] baby, and I’ve told them it’s probably because they smoke, it’s really nice when the doctors, when they have their scan and they realise it is an IUGR baby, reinforce that as well.”*  
Band 6 Midwife

Both midwives and obstetricians felt overburdened by the thought of addressing smoking in pregnancy as they perceived their role to be to stop women from smoking, rather than to give very brief advice and refer to stop smoking services.

*“But we just don’t have the time to sit there and talk. And it’s not just dictating at them about the risks, it’s about finding out why they smoke, and what the barriers to them quitting. Um... it takes time.”*  
Obstetric Registrar

*When talking about what is needed: “...regular contacts - which there is no chance we can do - and that’s what they need. They need intensive contacts”*  
Obstetric Registrar

## **Barriers related to women**

Futility emerged as a theme amongst both obstetricians and midwives. They felt that addressing smoking in pregnancy was futile as it was unlikely to have an effect.

*“The amount of times that I’ve said it and the amount of times it goes unheeded you kind of give up.”*  
Obstetric Registrar

*“I think by the time we’ve got there it’s too late.”*  
Post CCT Obstetrician

However, neither obstetricians nor midwives worried about upsetting or damaging their relationship with women by bringing up smoking.

*“I think it’s traditional that midwives will bring up smoking. Every woman expects it.”*  
Band 7 Midwife

*“It’s easier to talk about smoking than it is domestic violence I suppose. There’s so much we have to talk about, I think it’s just another thing, there’s no barrier I don’t think.”*  
Band 6 Midwife

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\*Note: throughout focus groups some midwives and obstetricians referred to CO Monitoring as CO<sub>2</sub> Monitoring. We have retained the error in the verbatim quotes.

*“You have to ask them so many direct and intimate questions about their lives that smoking is one of the, you know, you’re asking them, you know, have they ever been an IV drug user, have they been involved with social services, you know whether they’ve got a degree and so you’re asking them so many personal questions for somebody you haven’t met before that I think smoking is not, you know, [a barrier].”*

*Band 6 Midwife*

As evidenced in subsequent discussion, any discomfort they felt when bringing up smoking was related to a feeling of personal lack of knowledge or service level barriers.

*“There’s no barrier to the question, there’s barriers to helping. To helping them stop.”*

*Band 6 Midwife*

## **Service level barriers to addressing smoking**

Time constraints and workload as barriers to addressing smoking in pregnant women emerged as themes in all groups and were universally the first issues volunteered when asked about barriers to addressing smoking in pregnant women.

*“No but then you’ve got so much, and it’s just overwhelming how much you have to get through in your initial appointment.”*

*Band 6 Midwife*

Several midwives alluded to a tick list mentality due to the pressures on their time and workload.

*“But I think in your workload priorities it can get pushed down, because of other things that you have to have on your tick list for checking with each woman every time you’re with them. Quite often we’ve got a short appointment or you’re looking after a number of women, it gets pushed behind everything else. Its’ not, although it can have quite an effect, it’s not high priority.”*

*Band 7 Midwife*

*“I think the, the time pressures and the workload, the booking make me go back to that tick box mentality.”*

*Band 7 Midwife*

Availability of services were cited as barriers to addressing smoking with several health professionals expressing concerns that they were not adequately served by stop smoking services or had specialist midwifery services that had ceased due to lack of funding. Lack of equipment such as CO monitors was also raised as a barrier.

*“I think prioritisation is important because it sounds to me like a lot of other Trusts don’t even have the equipment, and ... if you don’t give the midwives the tools to do their job they can’t do their job.”*

*Band 7 Midwife*

Amongst obstetricians but not midwives, allusion to lack of continuity of care was raised as an issue. The ad hoc nature of obstetric care was compared with that of midwifery care and put forward as a justification that others were better placed than obstetricians to address smoking.

*“and you might get to see her once or twice during those 9 months....”*

*“yeah we’re not the best people...”*

*Post CCT Obstetrician and Obstetric Registrar*

## Barriers to training

Time constraints and workload were not only seen as a barrier to addressing smoking, but also a barrier to obtaining training related to smoking and pregnancy

*“It’s just that we’re stressed so much, time is probably the only big issue I would say, otherwise all of us would like to go, like to try and do everything. It is such a big factor.”*

*Consultant Obstetrician*

Amongst midwives, but not obstetricians, cuts to study leave were cited by several midwives as barriers to obtaining training.

*“We don’t have any, we’ve actually had our study, our mandatory study days cut down from three days to two days and there’s no training for a year because we were in such a bad state.”*

*Band 6 midwife*

The cost of training and the difficulty of being granted study days due to staffing constraints was also raised by midwives.

*“Staffing, it’s staffing, if you can be released for study days and things like that.”*

*Band 6 Midwife*

## Lack of Knowledge

Lack of knowledge related to smoking in pregnancy was pervasive throughout the groups and was readily acknowledged by group members.

This related to both background knowledge and knowledge surrounding practical actions to take when faced with a smoker or local services and pathways.

*“Like I don’t know what carbon monoxide levels mean. I don’t know whether that’s bad or good. So I’d like training on that.”*

*Obstetric Registrar*

For some this represented a barrier to addressing smoking or hampered the health care professionals’ interaction with the woman.

*“And the conversation I have with women, I then stop, because I just kind of think I don’t know what else to, [pause], so I just say to her, well you know, if you speak to the service about smoking there’s other things available, but I dunno what other things there are available.”*

*Band 6 Midwife*

*“Because we say so many things to the patient, sometimes they get more confused. Because we’re not trained ourselves.”*

*Consultant Obstetrician*

## Lack of awareness of available guidance

Direct questioning on available guidance demonstrated a lack of awareness amongst both midwives and obstetricians. Amongst one group of obstetricians neither the NICE guidance nor other guidance was alluded to when directly asked about knowledge of available resources addressing smoking. In the other group of obstetricians, a long silence was encountered after this question was asked until one consultant obstetrician mentioned NICE guidance.

This prompted only 2 more obstetricians to declare that they were aware of the guidance. No obstetricians made reference to the stillbirth care bundle during the focus groups. In one group of midwives NICE was universally recognised when this question was asked. In the other group NICE was alluded to by one midwife. The stillbirth care bundle was referred to by 3 midwives in one group and by one midwife in the other. Across all groups there was little awareness of guidance on e-cigarettes and in 3 of the groups significant discussion was held regarding confusion surrounding e-cigarettes, with no resolution of their concerns.

In all groups reference was made which contradicted the content of NICE guidance. For example, many in both obstetrician groups and one midwife group made specific reference to helping women cut down instead of quit. Amongst all groups of both midwives and obstetricians, health care professionals mistakenly referred to 'CO2' monitoring instead of CO monitoring at several points during discussions. At no point were these errors corrected by other members of the group.

## **Lack of training**

Lack of training to address smoking in pregnancy emerged as a common theme across all groups. Training was discussed, in terms of undergraduate and postgraduate training and in relation to specific topics: CO monitoring, very brief advice (VBA) and nicotine replacement therapy (NRT).

Amongst all groups the majority of comments indicated that participants did not feel that they had received training related to addressing smoking in pregnancy. Exceptions were in staff from 3 trusts. In 2 of these trusts specific initiatives had been implemented for example baby clear training or the stillbirth care bundle.

*Facilitator: Tell me about the training you've had in relation to the consequences of smoking in pregnancy, and also actions needed to address smoking in pregnancy*

*Group 2:*

*Midwife: I don't think I've had any*

*Midwife 2: No*

*Midwife 3: No*

*Midwife 4: No, No current training*

*Midwife 5: I've had training in 'CO2' monitoring*

*Group 1*

*Virtually nothing. All self, all self, just research.*

*Band 6 midwife*

In both groups of obstetricians this specific question was met with an initial period of silence. Only one obstetrician (a consultant) stated that there was a system of training related to smoking in pregnancy in their workplace.

*"Yeah I didn't realise how fortunate we were to be honest. I'm quite shocked sitting here...."*

*Consultant Obstetrician*

Amongst obstetricians there was also a perceived disparity between training received by obstetricians and training received by midwives.

*"I think my midwifery colleagues probably know this quite well, and get the right degree of training. But I wouldn't mind having a bit more. To be able to have those discussions with patients."*

*Obstetric Registrar*

As with their lack of knowledge, participants stated that lack of training also impacted on their interactions with women.

*Do you not find that though that's that what we always say? "Speak to the smoking cessation team. Speak to the smoking cessation midwife."*

*"And they'll say "oh well I'm trying this or that."*

*"Oh, are you?" - but you can't say anything about it because you don't have the training"*

*Band 6 Midwife*

## **Undergraduate training**

The majority of midwives did not feel that they had training on smoking in pregnancy pre-registration however they acknowledged that different experience would have been gained depending on how long ago they trained.

Amongst obstetricians, only one reply was forthcoming when asked about whether they had received undergraduate training.

*"The things is - undergraduate: most of the training you get is more theoretical than help in a practical sense. So you get what risk is there actually to be smoking in pregnancy, what can it cause blah blah blah. And basically it's all theoretical. But when it comes to practicality of sitting in front of a woman, a pregnant woman who's smoking, it doesn't tell you exactly what to do."*

*ST1 Obstetrics & Gynaecology*

## **Specific Questions related to VBA, NRT and CO monitoring**

The topic guide included questions on training in general before specifically broaching VBA, NRT and CO monitoring.

### **Midwives**

Many midwives stated that they had not received training in these areas, however some had received a certain degree during their mandatory training or in conjunction with national initiatives such as the stillbirth care bundle. Others were aware of training that had occurred in their workplaces amongst other staff members.

*"...all of our community midwives have all had carbon monoxide training. And so have a lot of our MSWs, but we haven't had any of the others..."*

*Band 6 Midwife*

*"Because of the saving babies lives campaign we've had full training and our monitoring I think the last percentage was 94% of women"*

*Band 7 Midwives*

However even amongst midwives, a substantial proportion of statements indicated that training on CO monitoring had not been received.

*"I've never seen one [CO monitor], I couldn't say how to use one, we don't have them on the unit. That's quite bad."*

*Band 6 Midwife*

*"I've had no training on CO2 monitoring."*

*Band 6 Midwife*

Few midwives had personally had training in VBA.

*"Brief advice rings a very vague bell. And I wonder have I had something about that once but, um, can't remember"*

*Band 6 Midwife*

*"I think it's just what you learn [from] your mentor when you're becoming a midwife or you pick it up off other people on the way or bits you read off the leaflet itself."*

*Band 7 Midwife*

And when specifically asked about training on NRT no midwives had received this.

*"Nothing."*

*Band 6 Midwife*

*"I don't know anything about it."*

*Band 6 Midwife*

## **Obstetricians**

Amongst Obstetricians, only one consultant obstetrician had had training in any of these areas. Amongst others, none had ever used a CO monitor.

*"You pick up stuff. Obviously. But, I wouldn't have a clue how to work one of the carbon monoxide machines."*

*Obstetric Registrar*

In both groups of obstetricians, no participants professed to knowledge or training surrounding NRT.

*"The nicotine replacement therapy - from Boots' shelves."*

*Post CCT Obstetrician*

## **Appetite for training**

It was clear amongst all health professionals that there was a significant appetite for training.

*"I think um, if we were better trained we would be better at the job wouldn't we, and doing it. And we would feel more confident in doing it."*

*Band 6 Midwife*

In particular this was for practical aspects of addressing smoking in pregnancy

*"When we have you know difficult situations in midwifery, it's nice to have, just a way of how can we put this..."*

*Band 7 midwife*

*"Nicotine replacement therapy, it would be nice to know more about that."*

*Band 6 Midwife*

*“Most of the knowledge I have is totally theoretical rather than practical. And everything practical I haven’t had any training on carbon monoxide, nicotine therapy. And the advice I’ve got is basically what I’ve learnt by practice rather than actual formal training. So you pick up what you need to tell the patient and what you can, what services you use, but there’s no formal training for us to build a foundation on.”*

*Obstetric Registrar*

## **E-cigarettes**

E-cigarettes emerged as a theme amongst all groups. In all four groups their benefits and disadvantages were debated with no resolution. No participants were aware of the Smoking in Pregnancy Challenge Group Guidance for professionals on e-cigarettes. This was an area where most participants desired more training.

*“And these e-cigarettes are obviously the in thing and there seems to be a bit of a confusion about those.”*

*Band 7 Midwife*

## **Indirect training through other means**

Particularly amongst obstetricians there were multiple statements regarding the fact they received no formal training on smoking in pregnancy and knowledge had been picked up indirectly through other means. Media through which this had occurred were stated by several to be journals, guidelines (for example the RCOG ‘venous thromboembolism’ and ‘small for gestational age fetuses’ guidelines), and protocols such as the Perinatal Institute Growth Assessment Protocol.<sup>8</sup>

Participants made statements related to the need for formal and standardised training on smoking in pregnancy.

*“Training is very important. Most of what we’ve had is more theoretical. Bit here, bit there. You know we need organised formal training.”*

*Middle Grade Obstetrician*

*“Yeah I wouldn’t have thought in my trust that you would get a consistent information from midwives. It would vary from midwife to midwife. What happens is what that midwife happened to have picked up from various sources along the way that she might have to say to that woman’*

*Band 6 midwife*

## **E-learning**

E-learning emerged as a theme, and benefits and disadvantages were debated, within all groups.

All participants recognised e-learning as a feasible way of providing training on smoking in pregnancy and mentioned benefits in terms of cost and the ability to undertake the training off-site.

*“E-learning is also one of the very good ways, but for that one has to be motivated to go and learn that.”*

*Consultant Obstetrician*

The possibility of an app was brought up by several participants.

*"I'd actually like go to bed at night, with my iPhone or iPad and just open an app and have some very easy - just read and it swipe, yes, read it, swipe - like that rather than just having to sit through a classroom..."*

*Band 7 Midwife*

Several Band 7 midwives suggested that a new module on the RCM i-learn module would be a good idea, despite the fact that this already exists.

*Midwife 1: "RCM i-learn."*

*Midwife 2: "Yeah yeah."*

*Midwife 3: "Yeah, that would be great."*

However, many expressed frustration with e-learning.

*"I think sometimes we're e-learned to death."*

*Band 6 Midwife*

*"We are e-learned out to our eye-balls."*

*Obstetric Registrar*

*"The e-learning burdens on staff are getting bigger and bigger."*

*Band 7 Midwife*

Others mentioned the potential for suboptimal learning and also the possibility of dishonesty using this method of learning.

*"But you literally just click. I've actually had [another person] click if for me whilst I'm doing something else."*

*Obstetric Registrar*

*"I've seen midwives just like pressing the enter button, they're not even reading what's on screen..."*

*Band 6 Midwife*

*"Yeah because at the same time you're trying to read that memo that's just come out. Aren't you and er..."*

*Band 6 Midwife*

The fact that training could be done off site was also stated as a disadvantage.

*"And what tends to happen is I'm usually doing it late at night at home, because I can't fit it into my office days, can't fit it into my clinical days."*

*Band 7 Midwife*

Amongst midwives but not obstetricians, it was acknowledged that IT skills could be a barrier to obtaining benefit from e-learning.

*"not everyone's very IT confident as well, there are definitely staff I work with that, they get scared when they have to log on for their emails never mind anything else."*

*Band 7 Midwife*

## Other areas of discussion

### Lack of awareness of local services/process

Many staff indicated that they were not aware of local services or processes. This was more common in obstetricians than midwives. Even when initially indicating that they were aware of these processes participants often later indicated that there were gaps in their knowledge.

*“Ours is an opt out so they tick the box that they’re smokers... unless they opted out they automatically get a referral, so I’m not sure how that process happens [laughs]”*

*Band 6 midwife*

### Characteristics of training

It was raised that different people had different learning styles and a range of methods of training was desirable.

Methods of training other than e-learning which were felt to be potentially useful included:

- Simulation
- Workshops
- Small group work
- Role play
- Demonstrations
- Face to face sessions
- Video teaching
- Phone Apps

Key characteristics that would facilitate people undertaking the training were if it were ‘*dynamic*’, ‘*concise*’ and ‘*not didactic*’.

All midwives felt that training on smoking in pregnancy should be mandatory. Whilst several doctors felt that training should be mandatory, a proportion did not. Some obstetricians suggested that training should be ‘recommended’ or ‘priority’.

Amongst doctors but not midwives multidisciplinary training was advocated. Amongst both, sessions given by stop smoking advisors were felt to be useful.

In both the obstetrician and midwife groups, unhappiness was expressed regarding having to undertake training outside of working hours

*“... most people will be reliant on doing it in their own time. And this should all be part of what we do within our work time.”*

*Obstetric Registrar*

For Obstetricians accreditation of the training (for CPD points) was generally considered important to increase the uptake of any training. One midwife mentioned revalidation in this context.

### Timing of training

In all groups, the importance of postgraduate training in addressing smoking was recognised.

Both group of midwives advocated training ‘all the way through’.

*“Starting at day one. Starting as undergraduate.”*

*Band 6 Midwife*

One obstetrician expressed that postgraduate training was of higher priority than undergraduate.

*“I think that undergraduates have lots of things on their plates you know, I think it’s mainly for the postgraduates.”*

*Consultant Obstetrician*

However other obstetricians supported training from an early stage.

*“Early on so it becomes part of your counselling and consultation.”*

*Consultant obstetrician*

One obstetrician had a role in overseeing medical students.

*“This is very important for the medical students as well. So what I thought, I’m a clinical supervisor for the medical students, maybe we’ll put one teaching session for them about the importance of smoking in pregnancy and I think that will be enough for them....”*

*Consultant Obstetrician.*

One obstetrician stated that training beyond consultant level was too late.

*“Post CCT means finished training, so that’s too late.”*

*Post CCT Obstetrician*

However, this was disputed by others.

*“It’s never too late. Actually, I think the consultants need to be more, because, they’re the leaders. We all go with what they say and therefore actually the consultants need to be trained more than we do.”*

*Obstetric Registrar*

## **Who should provide training and when**

The role of Trusts was raised when discussing who should be responsible for providing training.

*“...Well push the trusts. I don’t think there is a single trust that’s going to look you in the eyes and say smoking isn’t important. From the most affluent to the bottom.”*

*Middle Grade Obstetrician*

Others felt that the responsibility lay with national bodies such as NICE, RCOG and PHE.

*“Unless the things come nationally the local trusts doesn’t really react to that.”*

*Consultant Obstetrician*

The need for repetition of training was recognised as beneficial by all, although preferred time intervals varied. Obstetricians raised the issue of junior doctors frequently rotating between trusts with different pathways and referral mechanisms as a problem. For midwives, similar problems with rotation around areas was raised to highlight the need for frequent updates.

Trust induction was felt by both obstetricians and midwives to be an infeasible avenue for providing training, though departmental induction was seen differently. For midwives, mandatory training days were the only training opportunities mentioned, although obstetricians mentioned multidisciplinary teaching opportunities such as audit meetings which could be used for training. Obstetricians mentioned other times when training could be organised for them such as on Friday afternoons when there were generally fewer clinical sessions, and other opportunities such as regular teaching provided in conjunction with HEE, and through the e-portfolio and STRATOG.

## **National Survey of Midwives and Obstetricians in England regarding Training on Smoking in Pregnancy**

We carried out a voluntary survey of qualified midwives and doctors working in obstetrics & gynaecology (at all levels of seniority) who are currently practising in England. This was an online survey which opened on 7th February 2017 and closed on 12th March 2017.

All respondents were eligible for entry into a £100 prize draw, the winner of which was generated through a random number generator on 24th March 2017. The survey was advertised on the Smoke Free Action Coalition website and was promoted through social media channels (e.g. Facebook and Twitter) of the RCM and the RCOG. It was also included in O&G News, the members' newsletter of the RCOG, and was accessible on the homepage of the RCM website. Details of the survey were also sent via the RCM to Heads of Midwifery to forward to their staff, and to clinical directors in Obstetrics & Gynaecology to forward on to their staff via NHS England clinical networks. Where significance testing was performed, the data was analysed with SPSS using chi-squared testing with Yates' correction.

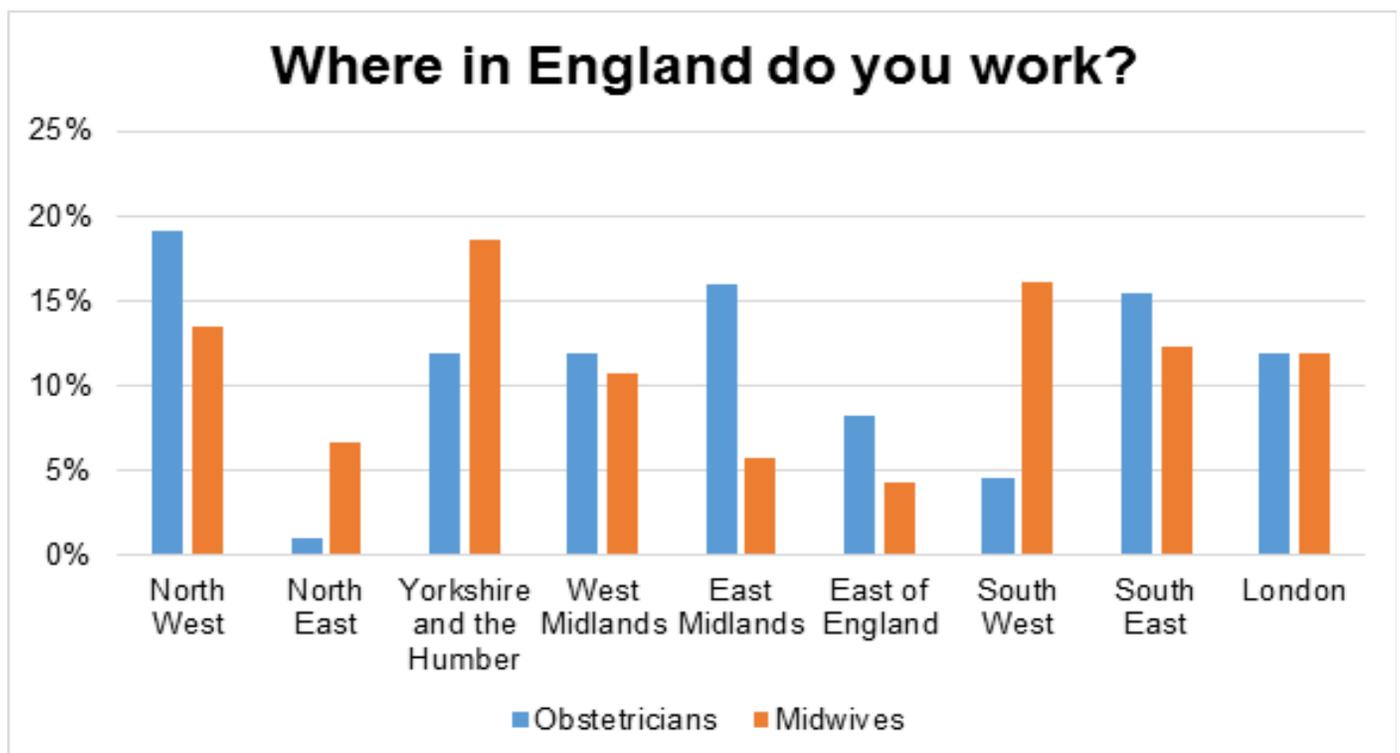
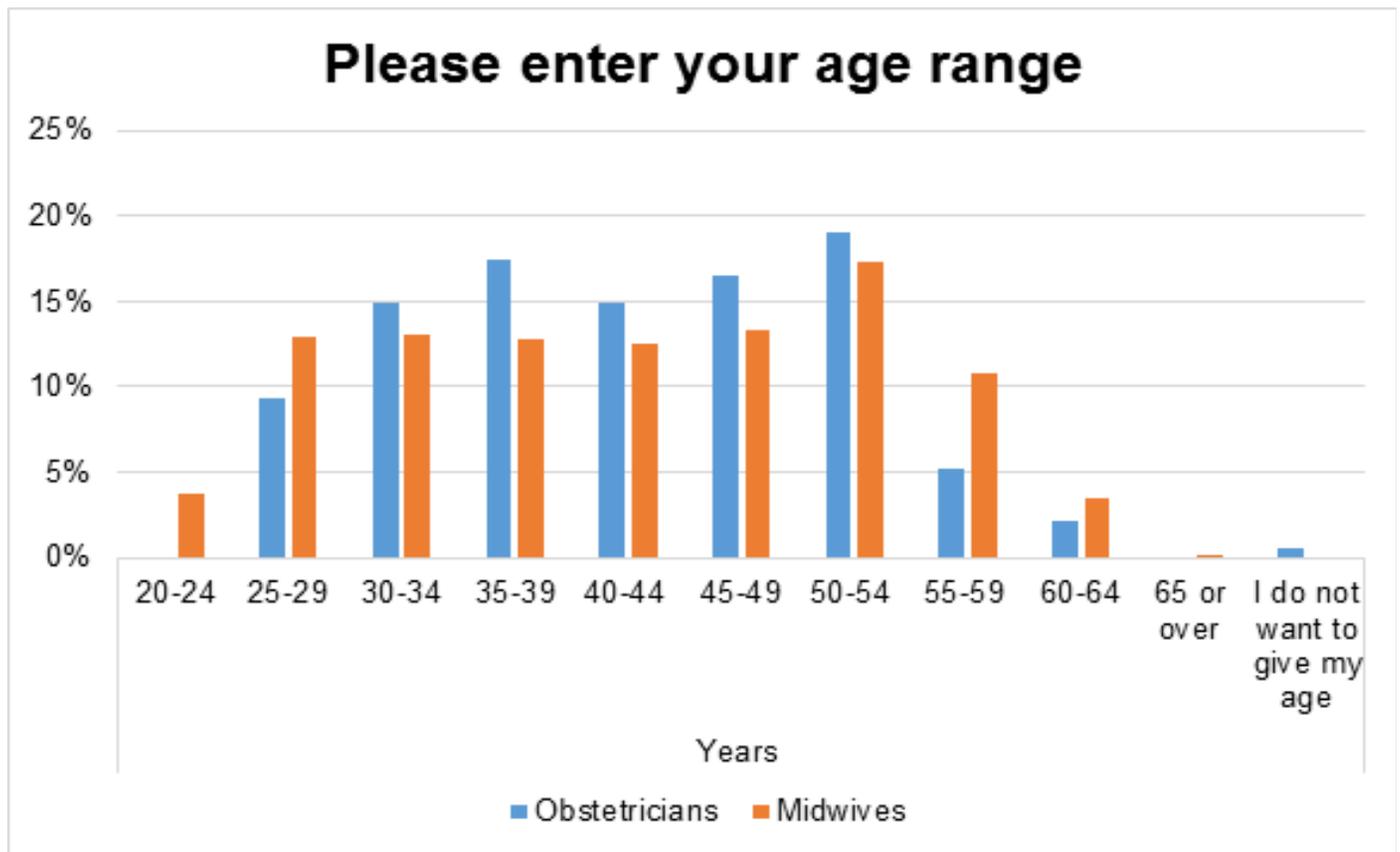
### **Characteristics of Respondents**

1,253 health professionals attempted the survey with an 85% completion rate. In total 1058 health professionals completed the survey. Twenty-one respondents who completed the survey and identified themselves as midwives were excluded as they were practicing as nurses (practice nurses or family nurse practitioners) or were not yet qualified. Specialist stop smoking midwives were also excluded as they were likely to have had training on smoking which was not representative of the majority of midwives. Among doctors, GPs or GP trainees and Obstetric Physicians were excluded as their training pathways are different to that of obstetricians. In total 839 midwives and 192 doctors were included in the analysis.

Age and geographic profiles of the respondents are displayed in Figure 1. The majority of midwives were between 25 and 59 years old, with a slight peak at 50-54 years. A similar pattern was seen in doctors. There was a significantly higher proportion of respondents in the 55-59 year age group amongst midwives compared with amongst doctors. There were no doctors in the 20-24 year age group, explained by the fact that the minimum age for a doctor to enter an obstetrics and gynaecology training programme would normally be 25 years.

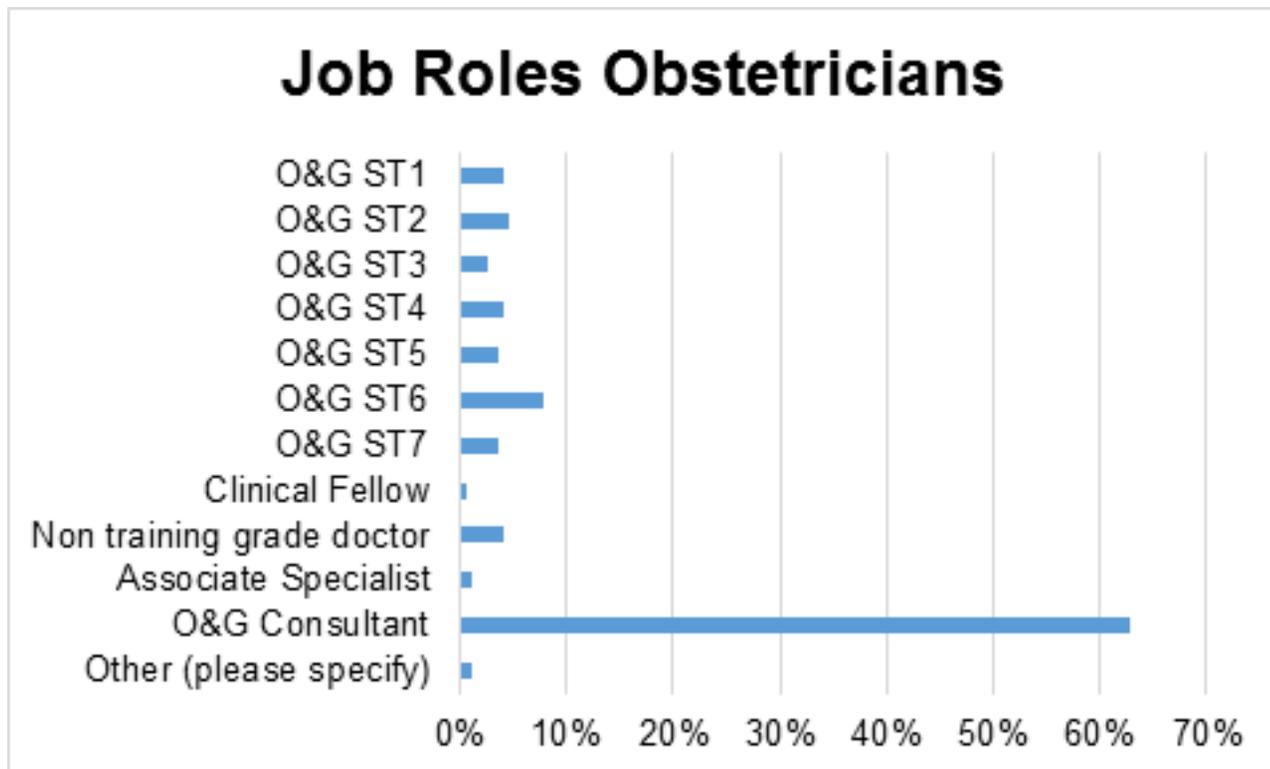
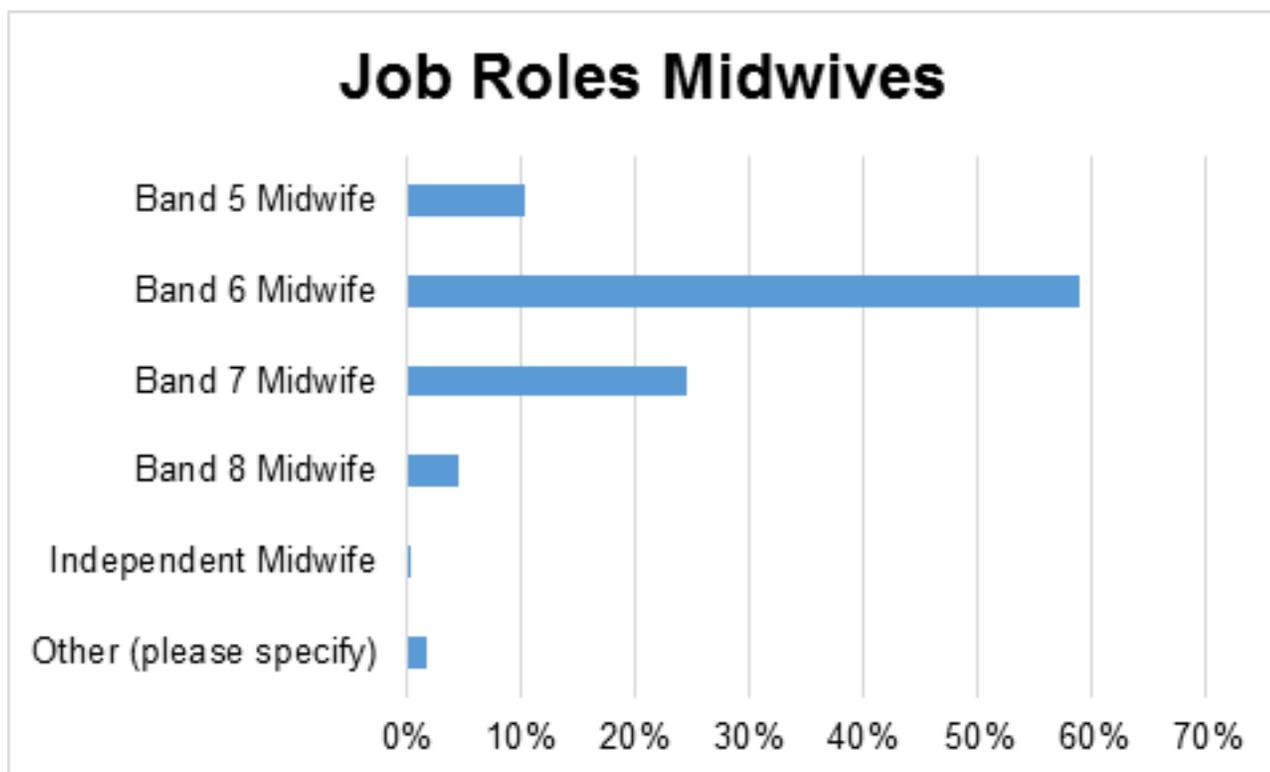
For both midwives and obstetricians respondents worked in all geographical areas; low numbers participated from the North East and South West for obstetricians and from the East of England for Midwives.

Figure 1 Age profile and geographic area of Midwives and Obstetricians completing questionnaire



The majority (59%) of midwives who responded worked at Band 6 level (above a newly qualified midwife and below a team leader or more senior banding). Amongst doctors, over 60% of respondents worked at consultant level with the rest working across a variety of junior training grades or as speciality doctors.

Figure 2 Job roles of respondents completing the questionnaire



Amongst midwives almost three quarters (73%) considered antenatal care to be their main area of practice (of these, 70% had worked in the community and 46% in antenatal clinic within the past 3 years). In those who considered postnatal care or intrapartum care their main area of practice, the majority (72% and 58% respectively) had worked in either antenatal clinic or the community within the past three years. Amongst doctors, almost all (98%) had worked in antenatal clinic within the past three years. 146 (17%) midwives considered themselves to be a public health midwife or equivalent.

## Questionnaire Findings

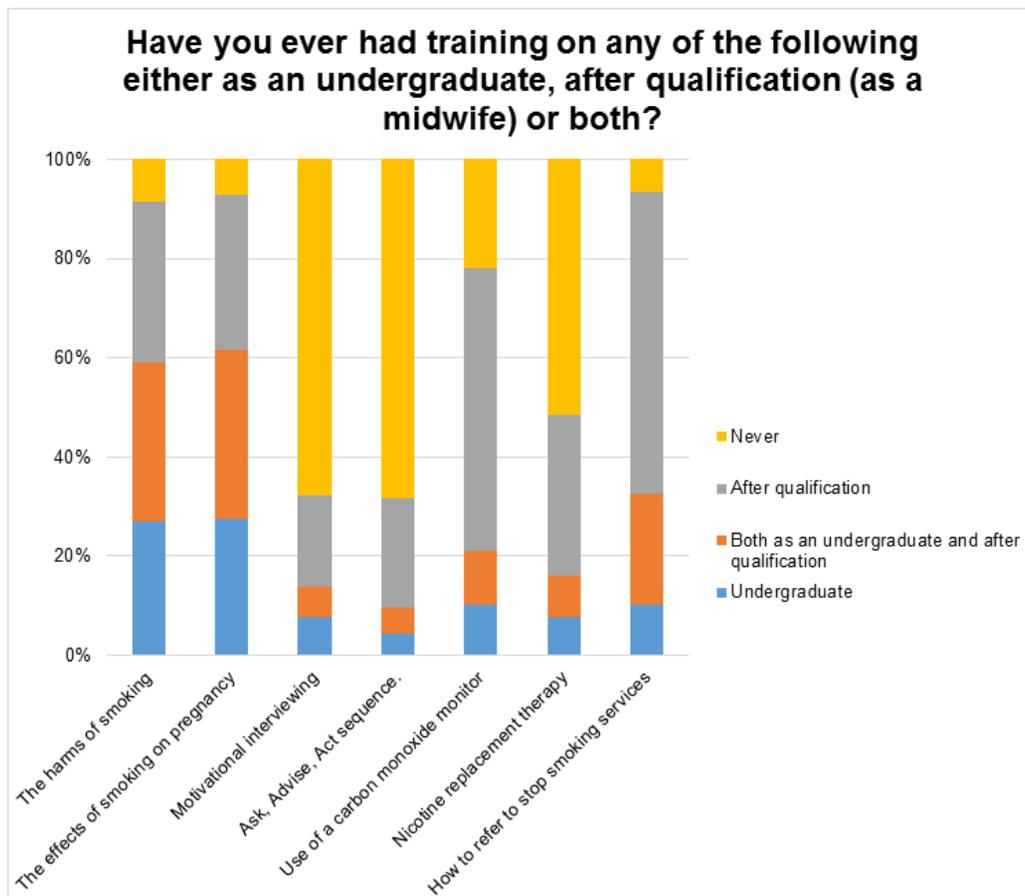
Amongst obstetricians only 18% had had training specifically related to smoking in pregnancy within the last three years, compared with 61% of midwives. The proportion of obstetricians who had received any training related to smoking in pregnancy was low. 41% of obstetricians reported they had never received training, and another 22% were unable to remember when they had last had it. These proportions were significantly higher than the 17% of midwives who had never had this training and the 7.4% of midwives who were unable to remember when they last had training.

### Previous training

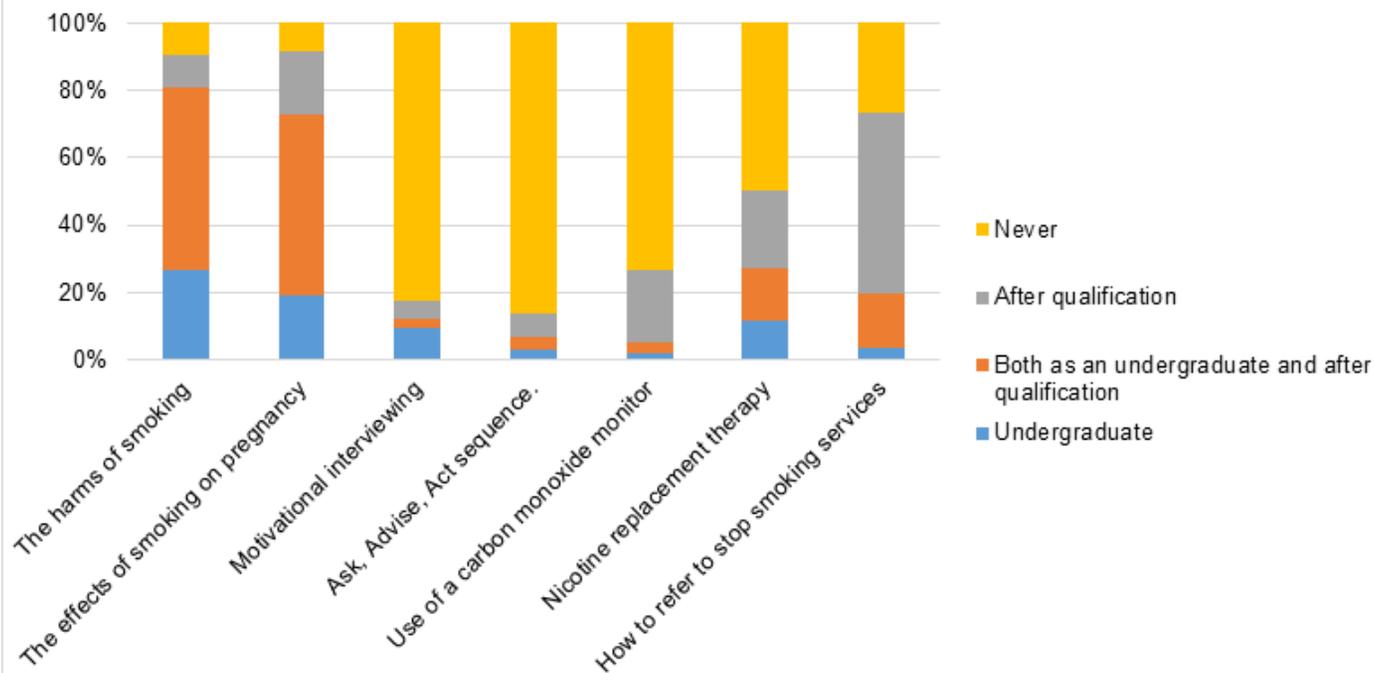
When asked about content of training related to smoking in pregnancy at both undergraduate and postgraduate level, over 90% of both doctors and midwives had had training on the harms of smoking and the effects of smoking in pregnancy at some point. However over two thirds of midwives (68%) and over four fifths of obstetricians (82% and 86% respectively) had never had any training on motivational interviewing or very brief advice. Significantly higher proportions of non-public health midwives had never had training on motivational interviewing and very brief advice than public health midwives, however proportions were high in both groups.

Approximately half of all obstetricians (49%) and midwives (51%) had never had any training related to nicotine replacement therapy (NRT). Less than one in ten (7%) midwives had never had training that included how to refer to stop smoking services compared with almost a quarter of (27%) of obstetricians.

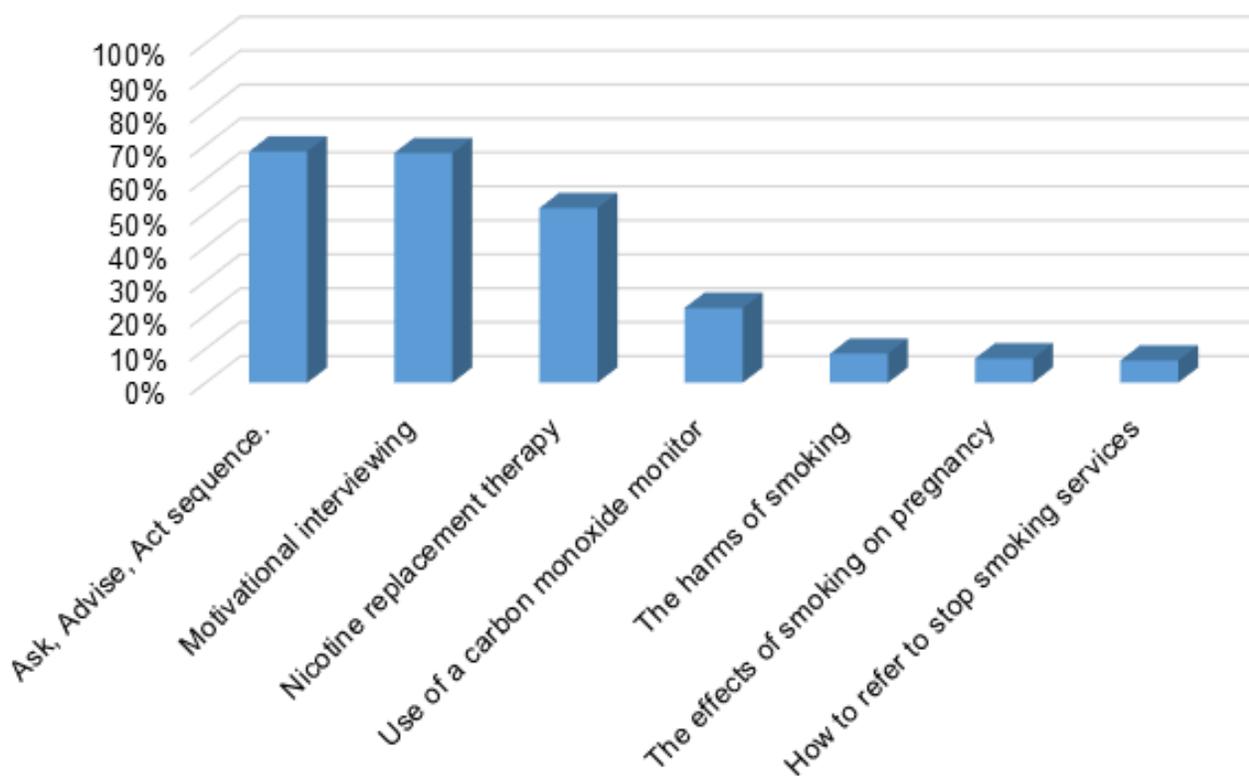
Midwives who participated in the survey were significantly more likely to have had training on the use of a carbon monoxide monitor and how to refer to stop smoking services than the obstetricians. Nevertheless, almost a quarter (22%) of midwives had never been trained in the use of a CO monitor, of whom approximately half considered their main area of practice to include antenatal care. This compared with almost three quarters of obstetricians (73%) who had never been trained to use a CO monitor.



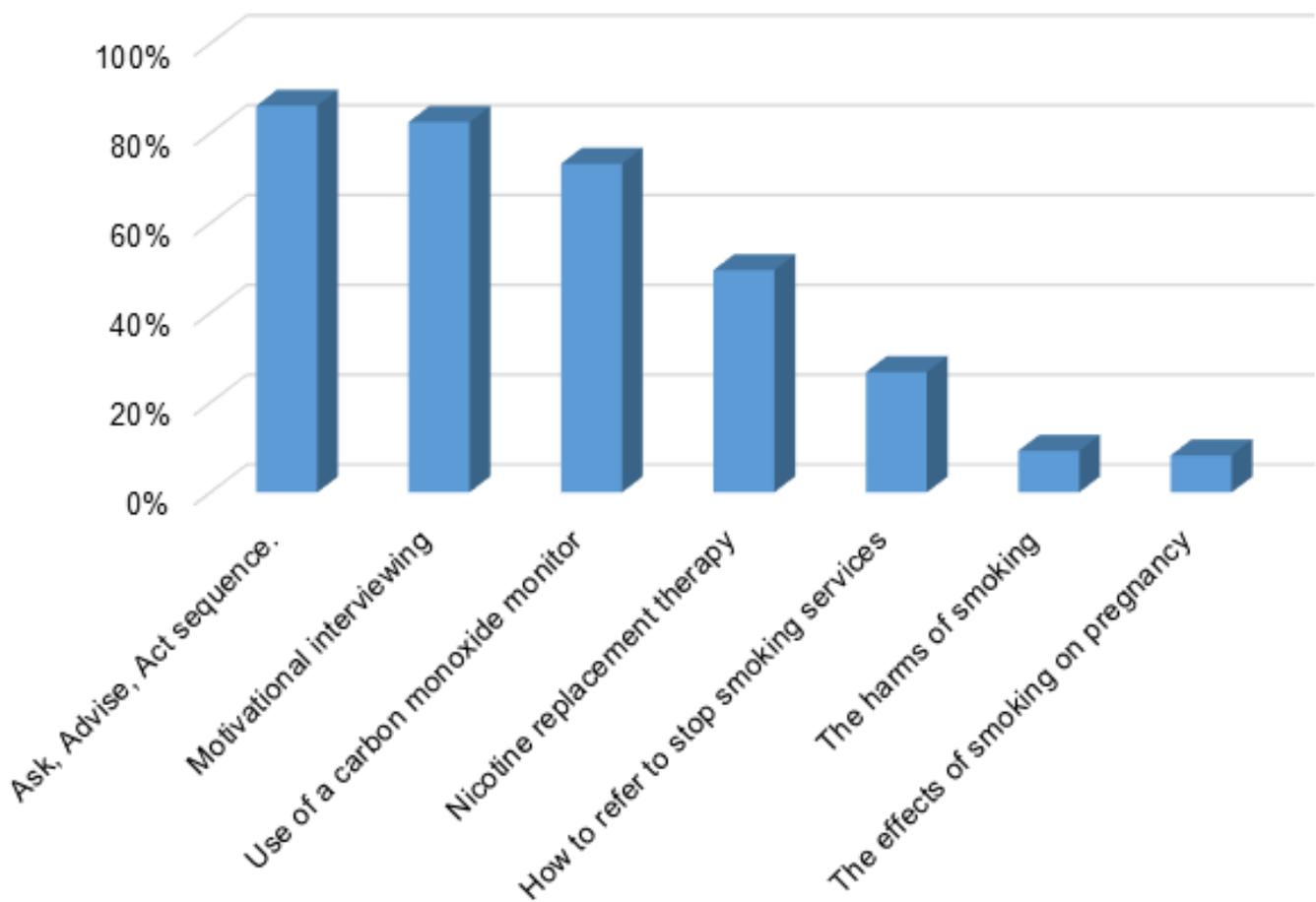
## Have you ever had training on any of the following either as an undergraduate, after qualification (as a doctor) or both?



## Proportion of midwives who have never had training



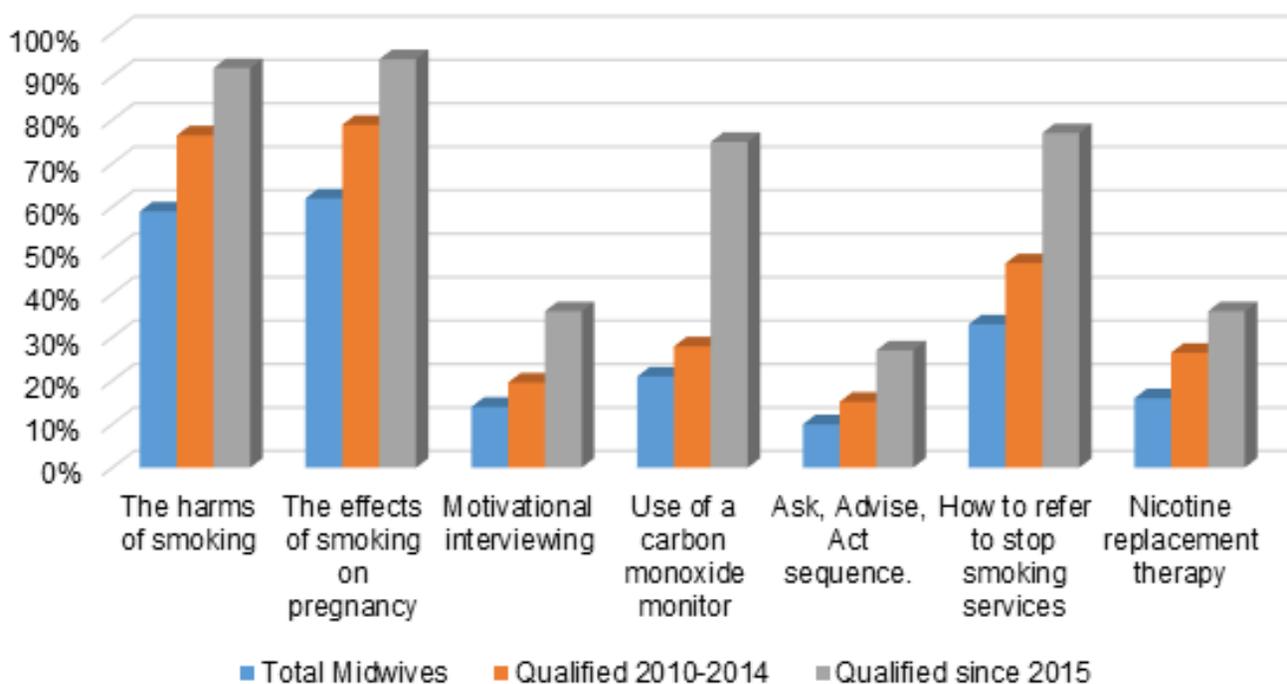
## Proportion of obstetricians who have never had training



### The effect of seniority and date of qualification

Given evidence that high proportions of midwifery schools appear to be currently providing training on the harms of smoking, brief interventions, and ways to assist quitting (62), we analysed whether there was a difference in training received as an undergraduate in the total sample of midwives compared with midwives who were newly qualified (since 2015) and compared with those who had qualified between 2010 and 2014. Compared with the total sample of midwives, higher proportions of midwives who qualified in 2010-14 reported having training in all areas as an undergraduate, whilst a further increased proportion of newly qualified midwives reported having had undergraduate training in these. Despite this, the same pattern was seen in all groups: lower proportions of midwives reported having received undergraduate training in nicotine replacement therapy, motivational interviewing, and the 'Ask, Advise, Act' sequence. Even in newly qualified midwives, almost three quarters (73%) had not received undergraduate training on the 'Ask, Advise, Act' sequence (VBA).

## Have you ever had training on any of the following....as an undergraduate



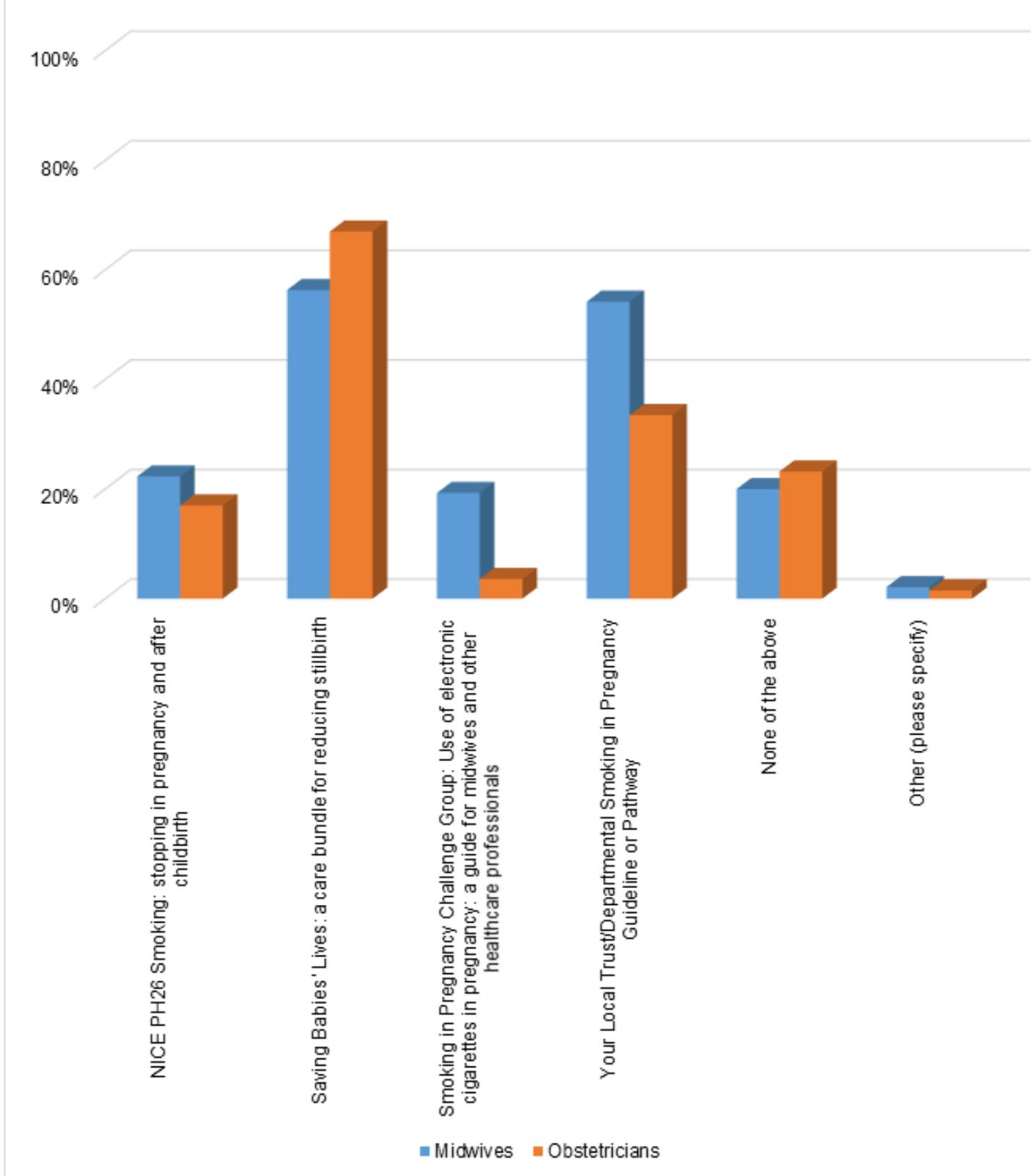
Amongst obstetricians, significantly more consultants and associate specialists (almost two thirds) than junior grades (one quarter) had never had training on NRT. Consultants and associate specialists were also significantly more likely to have never had training on motivational interviewing than junior grades, although there was no difference in ever having training in other aspects including VBA.

### Current practice

Overall, less than one in 5 midwives (18%) and Obstetricians (13%) used Very Brief Advice in their current practice. A significantly higher proportion of public health midwives used very brief advice compared with non public health midwives (25% vs 16%). However, this still indicates that three quarters of public health midwives did not use very brief advice in their practice. Over half of midwives (57%) used a CO monitor, compared with a fifth of obstetricians. Nevertheless, high proportions of both midwives (80%) and obstetricians (86%) reported using referral to stop smoking services in their practice. It was unclear whether there was some ambiguity in interpretation of this question by obstetricians as further questioning revealed that one quarter of obstetricians were aware of local smoking cessation services but did not know how to refer them.

Less than one in four midwives and one in five obstetricians had read NICE guidance PH26 on smoking in pregnancy. Obstetricians in the sample were significantly more likely to have read the Stillbirth Care Bundle than midwives, whereas midwives were significantly more likely than obstetricians to have read their local guidance. Over two thirds (67%) of obstetricians and over one half (56%) of midwives had read the stillbirth care bundle. One in two midwives, compared with one in three obstetricians, had read their local guidance.

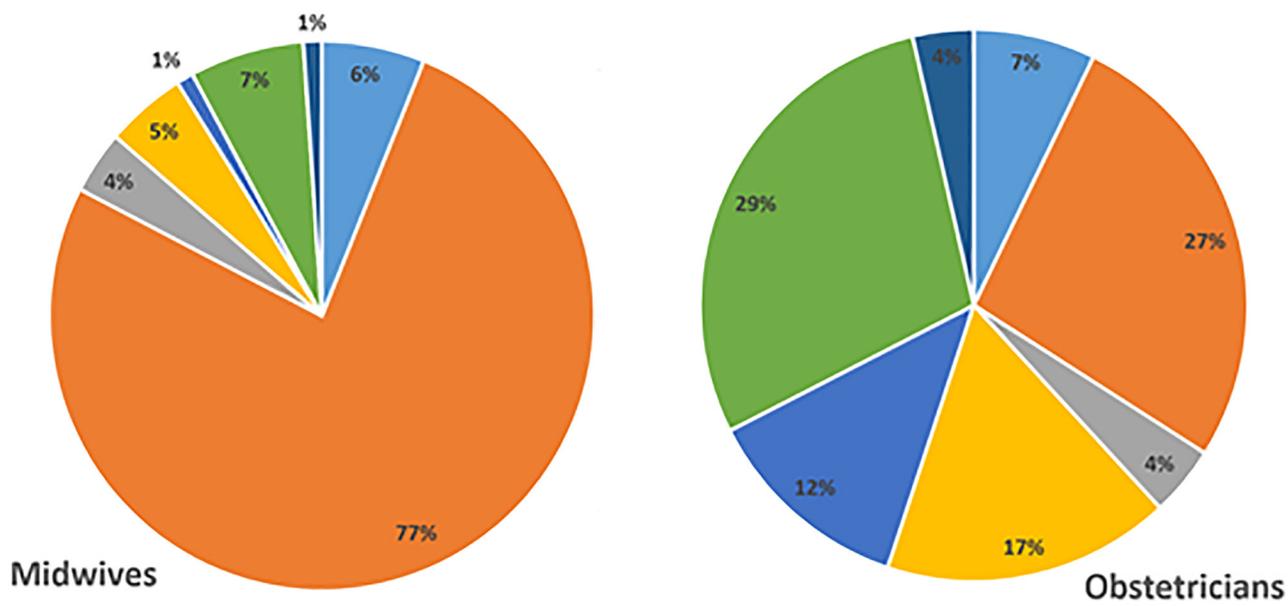
## Have you read any of the following documents?



## How should training be provided?

Amongst midwives the majority (77%) felt that the best way for training related to smoking in pregnancy to be provided was via mandatory training. This differed greatly from obstetricians amongst whom a wide variety of options were chosen, with almost one in three (29%) selecting 'as part of multidisciplinary departmental teaching' as an option.

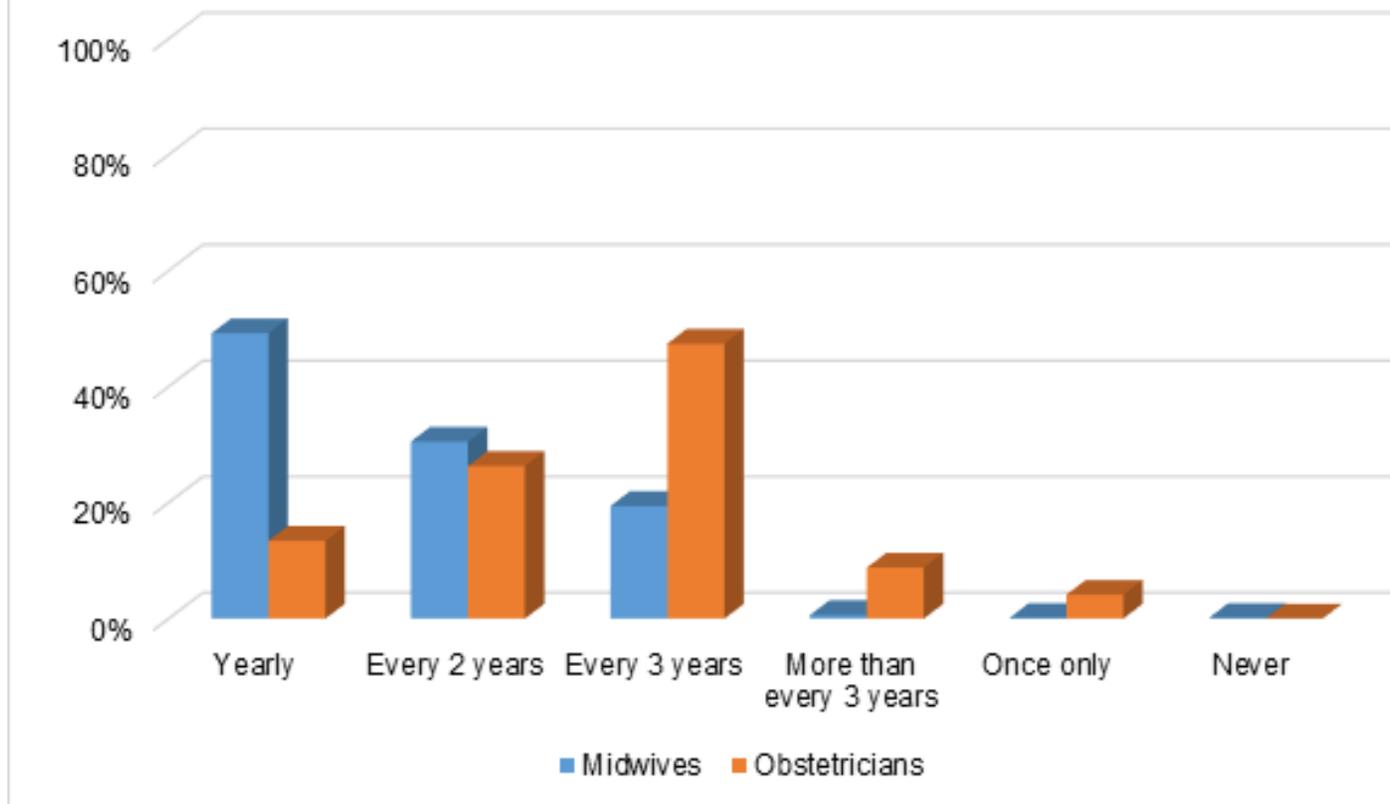
Beyond undergraduate level, what is the best way for training on smoking in pregnancy to be provided?



- by the hospital trust/department at induction
- as part of mandatory training
- as an optional choice for continuing professional development
- as part of speciality training/eportfolio competencies
- as part of regional teaching sessions for doctors in training
- as part of multidisciplinary departmental teaching
- Other

Both midwives and obstetricians felt the need for regular training although preferences in length of timing differed, with almost half of midwives (49%) selecting yearly as a preference and almost half of doctors (47%) selecting every three years as their preferred time frame.

## How often should training on smoking and pregnancy including updates be provided?

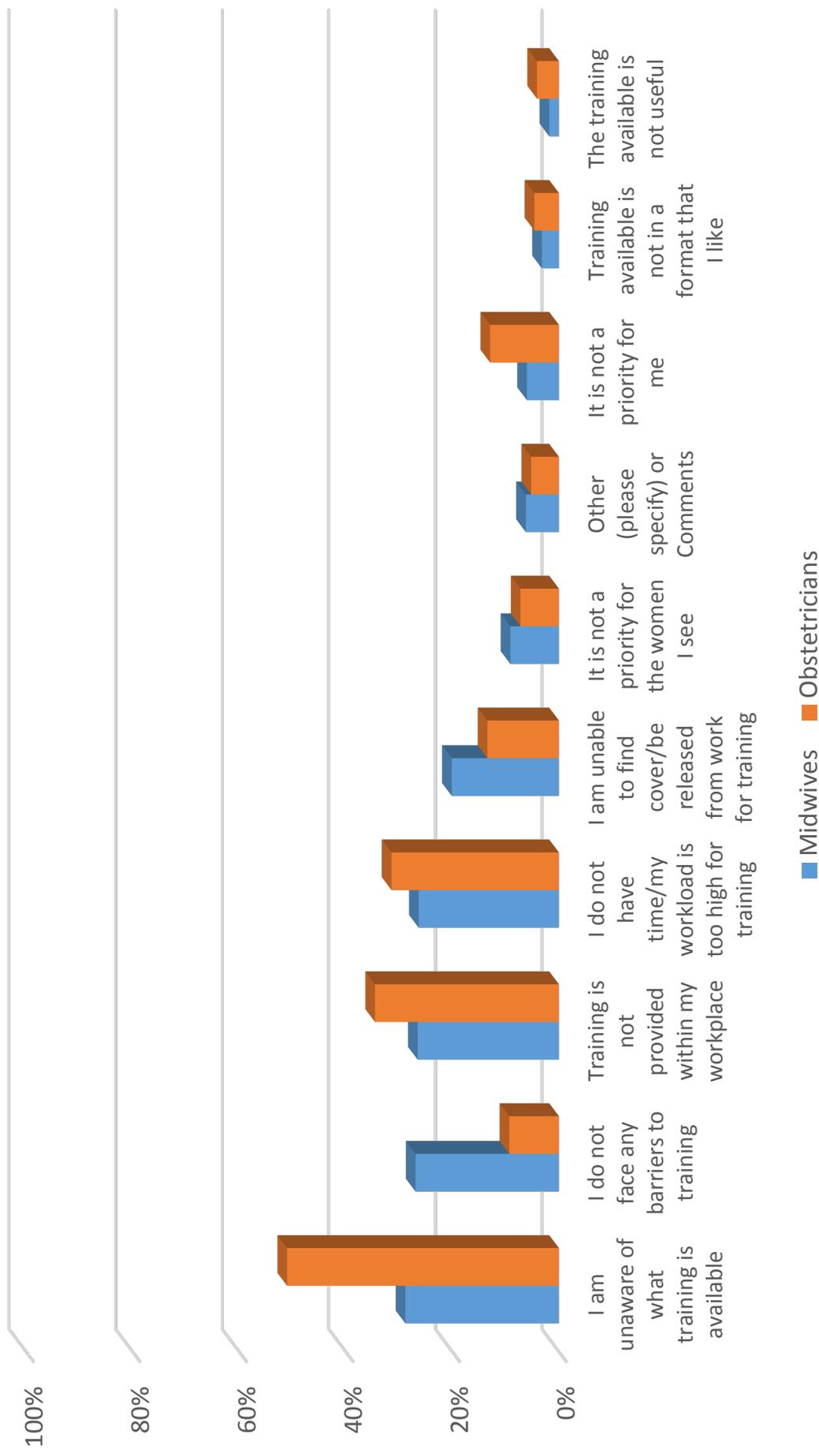


### Barriers to training

Participants were asked to identify the main barriers they encountered related to training to address smoking in pregnancy. Multiple answers were allowed, as well as a free text option.

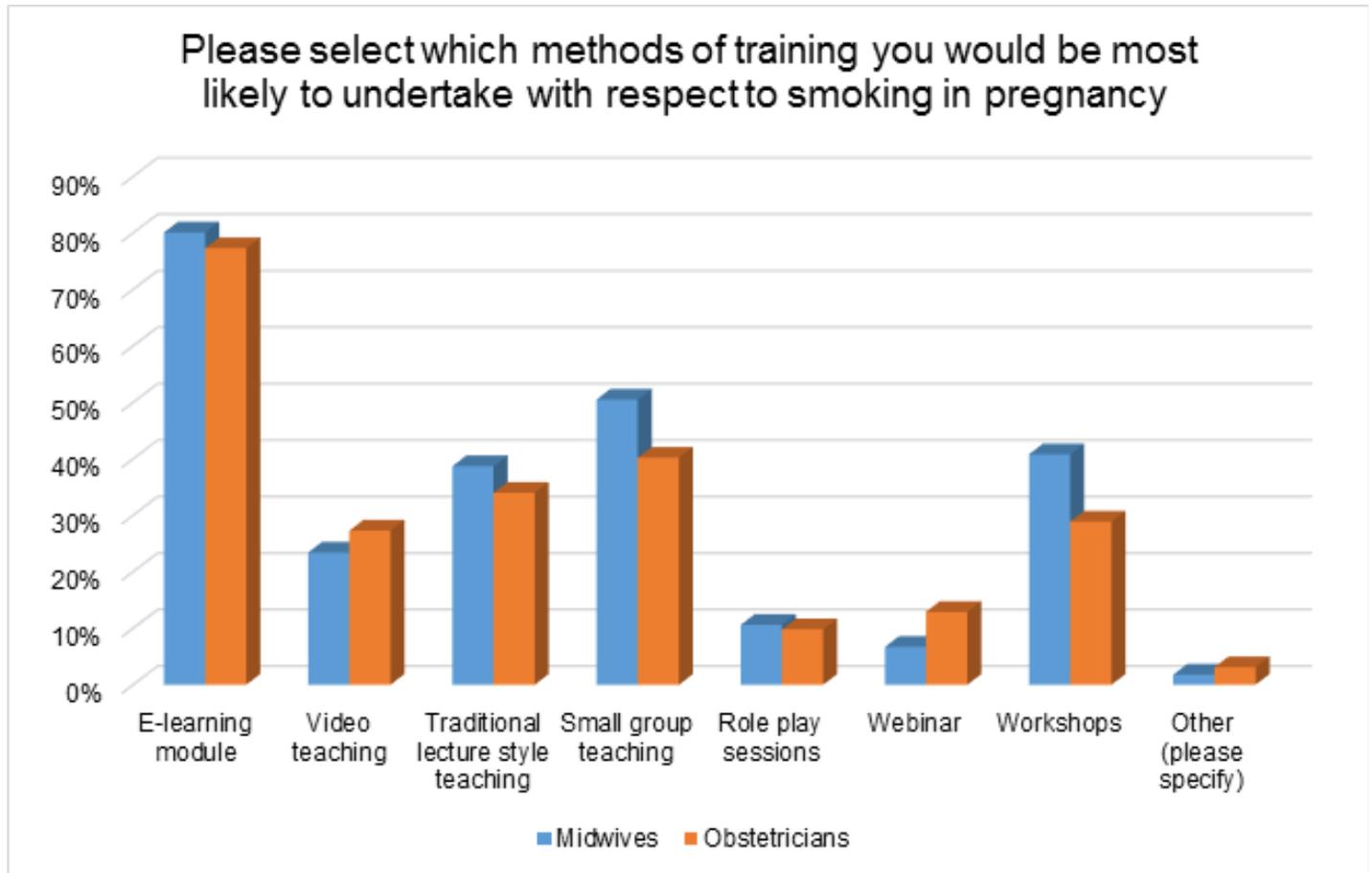
A significantly higher proportion of midwives reported that they did not face any barriers to training compared with obstetricians (27% midwives vs 9% obstetricians). Significantly higher proportions of midwives also reported that they were unable to find cover or be released from work for training (20% midwives vs 13% obstetricians). Amongst both groups, the top barrier to training was 'I am unaware of what training is available', with the higher proportion in obstetricians (51% compared with 29% in midwives). Approximately a quarter of midwives and a third of obstetricians selected 'training is not provided in my workplace' and 'I do not have time/my workload is too high for training' as responses.

## What are the main barriers you encounter to training related to smoking in pregnancy (tick ALL that apply)



## Training preferences

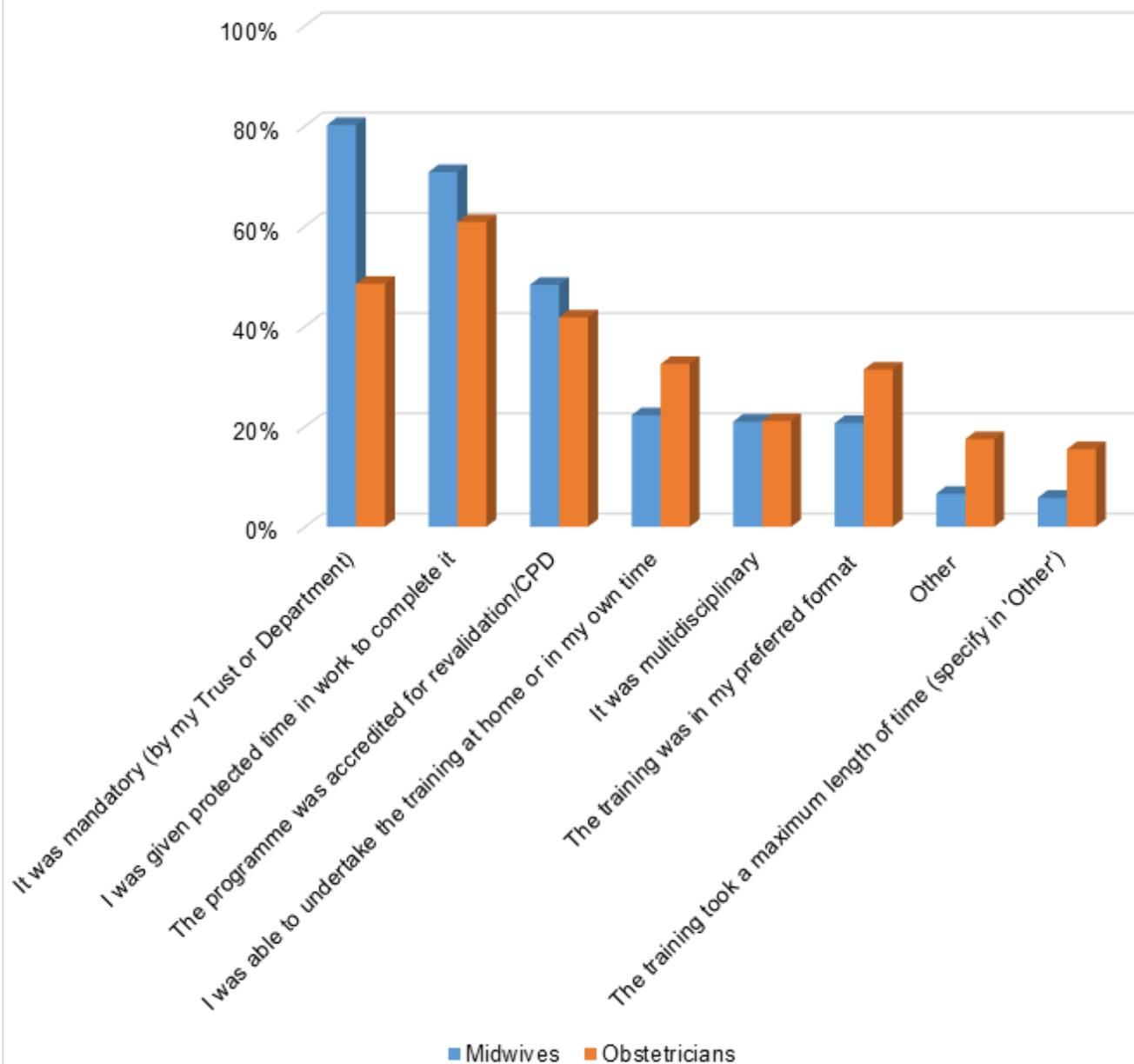
Participants were asked to choose the methods of training that they would be most likely to undertake, followed by their single most preferred method of training. Over three quarters of both midwives (80%) and obstetricians (77%) opted for e-learning as the method they would be most likely to undertake, with a variety of other fields selected by smaller proportions of participants.



Whilst e-learning remained the most common selection when participants were asked for their single most preferred method of training, the proportions making this selection dropped to around half in both midwives (46%) and obstetricians (55%). Therefore, although the majority of midwives and obstetricians were likely to undertake e-learning as a method of training, other methods were still preferable among approximately half of midwives and obstetricians.

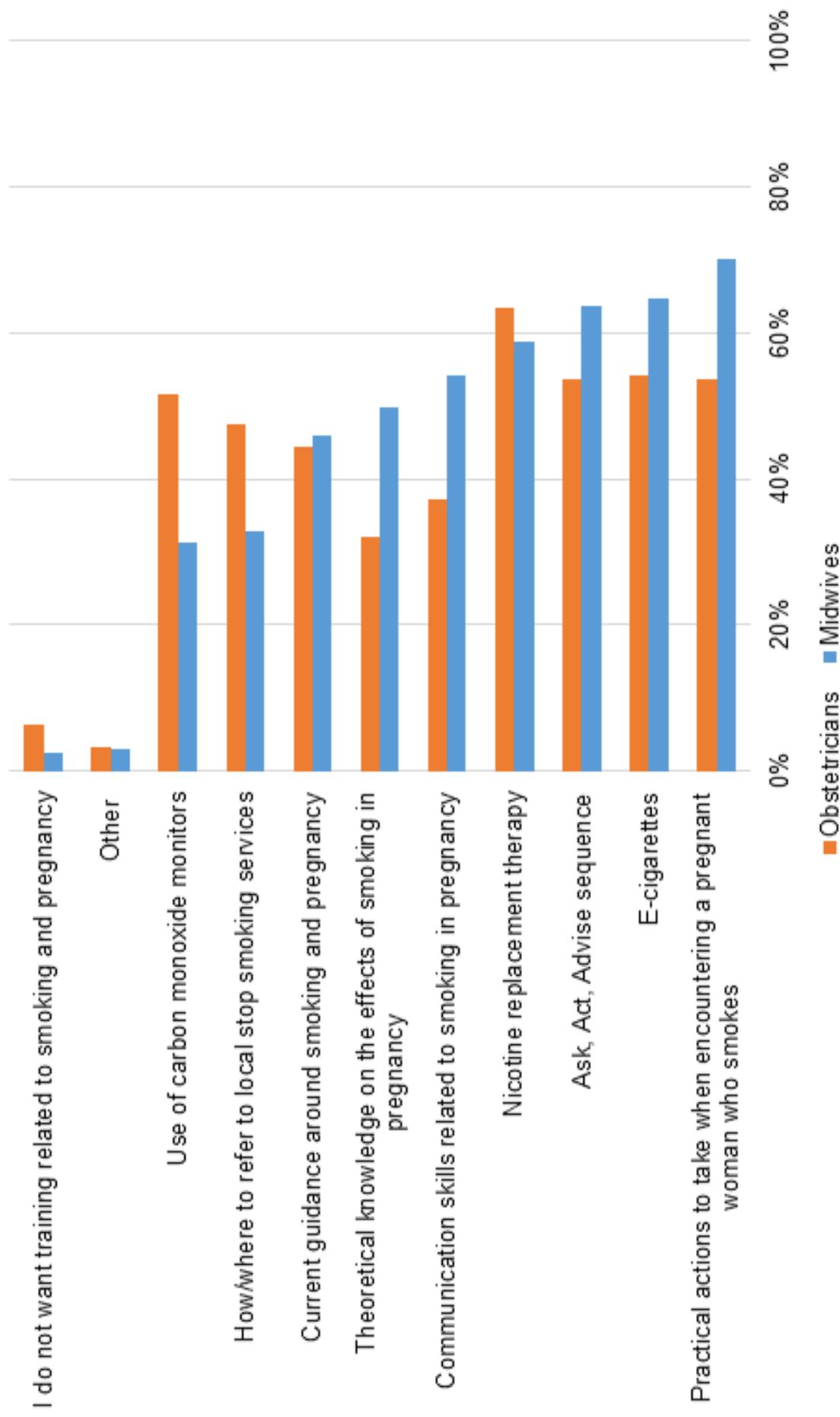
For the question 'I would be most likely to undertake training related to smoking in pregnancy if....', 80% of midwives selected 'if it was mandatory' and 70% of midwives selected 'if I was given protected time to complete it' as answers. For obstetricians, the most common selection (61%) was 'if I was given protected time to complete it'. Approximately half of obstetricians and 40% of midwives felt that accreditation or CPD revalidation would be a motivator to undertake training. Where participants had selected 'Other', in a majority of cases this was to indicate the maximum length of time they would be happy to undertake training. Amongst those who specified a timeframe, 1hr maximum was the most common response amongst both groups, with many selecting 15 or 30 minutes within this.

## I would be most likely to undertake training related to smoking in pregnancy if..... (tick ALL that apply)



The final question in the survey related to areas that midwives and obstetricians would like more training in. Almost all respondents desired further training with 97% of midwives and 96% of obstetricians desiring further training in one or more aspects related to smoking in pregnancy. The most popular selection for midwives (70%) was 'practical action to take when encountering a pregnant woman who smokes'; whereas for obstetricians it was 'nicotine replacement therapy' (63%). Also in the top three most popular answers for both midwives and obstetricians was 'ask, advise, act' sequence and 'e-cigarettes'. Around half of obstetricians, compared with approximately a third of midwives, desired more training on both how to use a CO monitor and referral to stop smoking services. Only 3% of midwives and 4% of obstetricians selected that they did not want more training related to smoking in pregnancy. Midwives were significantly more likely than obstetricians to want more training in all areas apart from 'use of carbon monoxide monitors' and 'how/where to refer to stop smoking services', where obstetricians were significantly more likely than midwives to want more training, and 'nicotine replacement therapy' and 'current guidance around smoking in pregnancy', where there was no difference between obstetricians and midwives.

## I would like more training on the following areas with respect to smoking in pregnancy (tick ALL that apply)



## What does this tell us?

As the leading modifiable risk factor for poor birth outcomes there is currently substantial interest nationally in addressing smoking in pregnancy. Therefore, the onus on healthcare professionals to address it, and on training and employing organisations to support them, is also high.

This project has made an assessment of the current training of midwives and obstetricians related to addressing smoking in pregnancy. It has also elucidated barriers and facilitators for training as well as current levers for improving it.

### Current perceptions regarding knowledge and training to address smoking in pregnancy

- **There is a common belief that knowledge and skills to address smoking are embedded in both training and practice of health professionals.** They are not: Across the stakeholder engagement process there was a belief that, as smoking is such a common and significant risk factor, knowledge and skills related to it are embedded in existing curricula, training and practice. Whilst the importance of smoking as a risk factor is widely appreciated, existing published data, results of the focus groups and survey, level of inclusion in current curricula and the inadvertent omission from newly formed guidance demonstrate that sufficient importance is not given to addressing smoking in either current practice or training.
- **Many midwives and obstetricians do not appear to feel adequately trained to address smoking in pregnancy.** This was a recurrent theme amongst both midwives and obstetricians in the focus groups. Despite this the majority of both obstetricians and midwives reported having had training in theoretical knowledge such as the harms of smoking and the effects of smoking in pregnancy at some point, and a majority also reported being trained in how to refer to smoking cessation services. A minority had had training in very brief advice or motivational interviewing. This indicates that they may be lacking in the skills required to connect theoretical knowledge and a high carbon monoxide reading to referral to smoking cessation services in a practical and meaningful way for women. This was a common perception regardless of seniority or date of qualification of the professionals.
- **Many midwives and obstetricians do not appear to feel they have adequate knowledge surrounding addressing smoking in midwives and obstetricians.** Lack of knowledge amongst both midwives and obstetricians was commonly professed and demonstrated during focus groups. Even in those who reported having training, later discussion revealed discrepancies with knowledge of NICE guidance (e.g. the importance of promoting quitting rather than cutting down) or inaccuracies in terminology (such as the ubiquitous use of 'CO2' rather than 'CO' monitoring). Many had no knowledge of very brief advice. For many in the focus groups, particularly midwives, discomfort with their knowledge surrounding smoking affected their interactions with women. Lack of training and knowledge among senior colleagues also has implications for student and newly qualified midwives as those in clinical and mentoring roles may be unable to effectively demonstrate and teach the skills necessary to address smoking in pregnancy.

### Current guidance and national initiatives

- **Issuing of guidance is not enough.** Less than a quarter of midwives and a fifth of obstetricians had read NICE PH26. Meaningful action by organisations responsible for employment and education should be taken to ensure that staff are both aware of the

guidance and possess the correct knowledge and skills to put it into action.

- **Guidance on detection of smokers and referral to support services is not enough.** To make a meaningful impact on women, and address low rates of engagement with support services, training on simple behaviour change techniques such as VBA is necessary.

## Action at National Level

- **There is limited scope for mandating training in undergraduate curricula therefore current reviews of standards and assessments represent an important opportunity to instigate change.** There are high demands on undergraduate curricula and each individual institution has autonomy over setting its own curricula under the standards set by the NMC and the GMC. The review of pre-registration midwifery standards and plans for the Medical Licencing Assessment represent opportunities to embed training on smoking cessation into training and practice. During stakeholder engagement, medical school education leads and LMEs expressed that, due to the demands on them and their curricula, the likelihood of including smoking cessation training into curricula would be increased if a ready-made resource was presented to them.
- **There is limited scope for mandating training across the post graduate/post registration workforce. National initiatives and upcoming reviews of post graduate curricula represent the most promising opportunity to influence the national maternity workforce.** Individual trusts have autonomy in setting the topics for mandatory training of their staff. As the major transformation programme in maternity services for the foreseeable future, the workstreams of the Maternity Transformation Programme are a major opportunity to talk to providers collectively, and influence them to work towards improved outcomes through provision of training to address smoking in pregnancy. The medical royal colleges provide an important route for training of specialists, trainees, and non-career grade doctors within the obstetric workforce as well as general practitioners. Including knowledge and skills to address smoking in pregnancy in their curricula and exams and offering training resources through their learning platforms are important mechanisms for post graduate medical training.

## Local barriers

- **Existing pressures on staff cannot be ignored.** Time, workload issues and staffing issues have a real effect on both whether interventions are provided and whether training is undertaken by staff. Whilst training to address smoking could have a positive impact on time-efficiency, finding time for training is a real difficulty. It is not enough to rely on the good will and motivation of staff to undertake training, and employing organisations must consider mechanisms to facilitate this.
- **There is confusion surrounding the role of health professionals in addressing smoking in pregnancy.** Crucially, midwives and obstetricians did not have knowledge of what was required of them in relation to addressing smoking. There was a common misperception that they were responsible for ensuring that a woman quits smoking (rather than the reality of undertaking CO monitoring, delivering VBA and making a referral). This led them to overestimate their role, to feel overburdened by it and to justify lack of intervention with excess workload.

- **Despite being an issue that can impact on outcomes of women and babies when it comes to smoking silo working is evident.** Participants in the focus groups all strongly agreed that it was the midwife's role to address smoking. In the survey, approximately 1 in 8 (13%) obstetricians indicated that it was not a priority for them which was twice the rate in midwives. Whilst midwives immediately recognised the importance of their role in addressing smoking in pregnancy, during focus group discussion they often professed to seeing 'others' such as specialist midwives and stop smoking advisors as having a greater responsibility. Many stakeholders questioned the extent of the role of obstetricians in addressing smoking in pregnancy, given that midwives see women in normal pregnancy (and, despite her elevated risk, a woman who smokes during her pregnancy would often be considered 'normal' in the absence of other risk factors). This does not reflect the fact that a significant proportion of pregnant women may still come into contact with obstetricians in either pregnancy or childbirth, the fact that smoking is a leading risk factor for pregnancy complications, or the need for women to receive a consistent message from all health professionals. Women may see a range of professionals at various stages in pregnancy and childbirth. There are low rates of engagement with services and the nature of behaviour change means that success at the first visit cannot be depended upon. Repeated VBA is likely to be necessary and all obstetricians and midwives dealing with pregnant women should have the knowledge and skills to be able to take opportunistic action.
- **Differences in mechanisms of providing training for midwives and obstetricians are a barrier to multi-professional learning.** Midwives strongly felt that mandatory training was their main mechanism for training. This contrasted significantly with obstetricians in whom approximately half selected this option and in whom the spread of alternate responses was wider. This may reflect the greater opportunities for study leave and training opportunities amongst obstetricians compared with midwives. Midwives were less likely to choose multidisciplinary teaching as a preferred mechanism of training. This may be due to role perception (both groups felt that addressing smoking was primarily a midwife's role), or inherent ways of working (with continuous care of women and the need to ensure staffing of acute and inpatient areas meaning midwives are less likely than doctors to be able to attend such teaching).
- **The local availability of services cannot be ignored.** Many health professionals questioned whether training of midwives and obstetricians could be effective in improving outcomes if the wider issue of the availability of stop smoking support services for women is not addressed. This was a recurrent theme in focus groups and in free text comments in the survey. The issue of availability is not only important in ensuring there are trained professionals who can provide intensive support to help a pregnant woman to quit but also important in ensuring that smoking cessation expertise are part of the local health economy which in turn will have an impact on the skills and knowledge of generalists.

## Facilitators to training

- **There is a clear appetite for training to address smoking in pregnancy amongst both midwives and obstetricians.** Desire for training is highest in areas where previous training was reported as lowest. In particular, among both midwives and obstetricians, there is a desire for training in practical skills to broach the subject of smoking in pregnancy with women, particularly motivational interviewing and very brief advice.

- **The role of the work place is seen to be key in providing training.** The most common barriers to training related to:
  - o time or workload
  - o training not being provided by workplace
  - o lack of awareness of available training.

The burden of having to undertake training in a health care professional's own time was evidently felt, and being given protected time to complete training scored highly as a motivating factor for undertaking training. Protected time to undertake training related to smoking in pregnancy must be considered by employing organisations. Midwives do not have structured postgraduate training. A large proportion of the obstetric workforce may not have structured training (for example specialty doctors) or are not currently participating in the RCOG training curriculum (GPs, foundation year trainees and those who are post CCT). External organisations cannot be relied on to ensure all staff possess knowledge and skills related to smoking and employing organisations must also acknowledge responsibility for providing training.

- **A variety of methods for training to address smoking appear to be acceptable to midwives and obstetricians.** There is evidence that training staff in a variety of formats improves practice and smoking quit rates<sup>56 45</sup>. There is no robust evidence clearly demonstrating the superiority of one training method over another. Survey results showed that staff would be likely to consider a range of training methods to address smoking in pregnancy. The majority of respondents recognised e-learning as a feasible and practical method of training, with over three quarters of both doctors and midwives choosing this as a method of training that they would be likely to undertake. However, approximately half of midwives and obstetricians chose other methods of training as their single most preferred method. The e-learning burden on NHS staff was perceived to be huge. The possibility of dishonest completion of e-learning modules raises questions regarding the extent of their effectiveness. The length of training is also important. Most health professionals who specified a maximum time preferred training to last less than 1 hour with many selecting 15 or 30 minutes.

## Recommendations

### Overarching considerations

- Smoking is the leading modifiable risk factor for poor pregnancy outcomes and addressing it is a national priority for maternity services.
- All health care professionals who come into contact with pregnant women who smoke must acknowledge their responsibility to address this important risk factor.
- Training of health professionals can enable them to feel supported in addressing smoking in an effective, time-efficient manner, in order to improve outcomes for women and their babies and have long-term impact on women, their families and the NHS.
- In an ever pressured and resource-constrained environment, employing and educational organisations must ensure training for midwives and obstetricians to address smoking in pregnancy is both provided and supported.

### Training requirements

- All midwives and obstetricians should be trained so that they:
  - o have the knowledge and skills to undertake practical action to address smoking, such as CO monitoring and referral to smoking cessation services;
  - o are able to have a brief and meaningful conversation to increase the likelihood of a positive outcome.
- Training should reach all midwifery and obstetric staff so that they can provide a consistent message for women.
- Training should be embedded in both the undergraduate and postgraduate setting.

## Recommendations

### Nursing and Midwifery Council

1. Include reference to knowledge and skills for addressing smoking in pregnancy in the new pre-registration standards for midwives which are currently under development, and any post-registration standards that may come into effect in future.

### General Medical Council

2. Include elements related to addressing smoking, as the leading modifiable risk factor for morbidity and mortality, in the Medical Licensing Assessment.

### NHS England/Public Health England

3. Ensure that training related to addressing smoking in pregnancy is promoted at a national level in particular, through current mechanisms such as the Maternity Transformation Programme.
4. Take action to promote effective local pathways and support local co-ordination for addressing smoking in pregnancy, including appropriate training of local maternity staff by NHS Trusts. The Local Maternity Systems may be an effective facilitator for this activity.

5. Develop a short training resource, for example a video, that can be circulated to trusts for inclusion in mandatory in-service training for midwives, induction for rotating medical staff, and during multi-professional training events as a baseline for all staff that can be supplemented with other methods as necessary.
6. Participate in the consultations for current and upcoming reviews pertinent to training of the maternity workforce and ensure that the importance of training to address smoking in pregnancy is highlighted.
7. Explore the current and potential role of other relevant health professionals who provide care for pregnant women, such as maternity support workers, health visitors, nursery nurses, ultrasonographers, and family nurse practitioners, and explore the scope for improving any training for these professionals to address smoking in pregnancy.
8. Work with NHS Trusts to ensure that up to date resources are made available to front line staff on options for pregnant women who smoke including e-cigarettes, for example the resources produced by the Smoking in Pregnancy Challenge Group.

### **Royal College of Midwives**

9. Continue to promote training related to smoking in pregnancy, such as the i-learn module Very Brief Advice on Smoking for Pregnant Women, to membership.
10. Via workforce representatives, monitor the level of support midwives are obtaining to address smoking in pregnancy and advocate for optimising this support.
11. Participate in the consultations for current and upcoming reviews pertinent to training of the maternity workforce and ensure that the importance of training to address smoking in pregnancy is highlighted.

### **Royal College of Obstetricians and Gynaecologists**

12. Include training to address smoking in pregnancy in the specialty training curriculum which is currently being reviewed.
13. Include assessment of knowledge and skills related to addressing smoking in pregnancy in the Objective Structured Clinical Exam for the MRCOG.
14. Consider a training resource, either using novel or available resources, to support learning and ensure that the obstetric workforce outside of specialty training can access training related to addressing smoking in pregnancy.
15. Explore CPD accreditation for any learning resources related to addressing smoking in pregnancy.
16. Participate in the consultations for current and upcoming reviews pertinent to training of the maternity workforce and ensure that the importance of training to address smoking in pregnancy is advocated.

## **Royal College of General Practitioners**

17. Continue to ensure that the current review of the training curriculum includes elements to address smoking in general, and smoking in pregnancy, wherever relevant.
18. Develop an online learning resource on addressing smoking that includes smoking in pregnancy.
19. Explore the role of examination in relation to the assessment of knowledge and skills related to addressing smoking, including smoking in pregnancy.

## **Midwifery schools**

20. Embed training to address smoking in pregnancy in undergraduate curricula.
21. Continue to include theoretical knowledge related to smoking in pregnancy, as well as practical aspects such as CO monitoring and referral for stop smoking support. Ensure that behaviour change techniques such as motivational interviewing and very brief advice are included to connect the two in a meaningful way.
22. Assess these competencies to ensure that learning has been effective.

## **Medical schools**

23. Embed training to address smoking in general in their undergraduate curricula.
24. Continue to include theoretical knowledge related to smoking in general, as well as practical aspects such as CO monitoring and referral for stop smoking support. Additionally, include behaviour change techniques such as motivational interviewing and very brief advice to connect the two in a meaningful way.
25. Ensure that implications of smoking and pregnancy are covered during Obstetrics and Gynaecology attachments.
26. Assess these competencies to ensure that learning has been effective.

## **Local organisations**

27. NHS Trusts must provide training for staff working in maternity to address smoking in pregnancy including practical aspects such as CO monitoring and referral for stop smoking support, alongside simple behaviour change techniques such as very brief advice.
28. NHS Trusts must ensure that protected training time is used for this, with particular consideration given to mandatory in-service training for midwives, induction for rotating medical staff, and multidisciplinary training opportunities.
29. Clinical Commissioning Groups must commission to ensure that care pathways for pregnant women meet NICE guidance PH26 on smoking in pregnancy and after childbirth, which includes training of maternity staff to an appropriate level.
30. Local authorities must work collaboratively with local NHS systems to ensure joined-up provision of services for pregnant women who smoke and to promote and support the need for appropriate levels of training of maternity staff.

### **Third sector organisations**

- 31.** The Smoking in Pregnancy Challenge Group and its members must continue to advocate for a fully trained maternity workforce with respect to addressing smoking in pregnancy.
- 32.** Participate in the consultations for current and upcoming reviews pertinent to training of the maternity workforce.
- 33.** Efforts could be made to make the existing NCSCT on-line training module, Very Brief Advice on Smoking for Pregnant Women, available via the NHS eLFH platform to further increase access to this resource.

## Appendix 1

*Reviewed recommendations related to training (adapted). Smoking Cessation in Pregnancy: A review of the challenge (2015)*

Recommendation	Rating
1. There should be implementation of the NICE guidance: all midwives, and other health professionals working with women who smoke while pregnant, should have training on smoking cessation that is appropriate to their role. This is the responsibility of maternity service managers, commissioners of stop smoking services, and relevant professional bodies and organisations.	AMBER
2. The Nursing and Midwifery Council should specify that mandatory education on smoking in pregnancy and brief intervention training for all midwives be provided as part of their preregistration training and continued professional development.	RED
3. To ensure that midwives are competent in discussing smoking with women and delivering CO screening, Health Education England should ensure that all midwives and maternity support workers undertake regular training and are adequately resourced to equip themselves to raise the issue of smoking with women.	RED
4. Health Education England should ensure that all practitioners who assist pregnant women to stop smoking are provided with appropriate evidence-based training resources that allow them to address the core competencies required in providing effective smoking cessation advice.	RED
	AMBER
5. Local commissioners should ensure that all practitioners who assist pregnant women to stop smoking are sufficiently trained, achieving full NCSCT certification and completing the NCSCT specialty pregnancy online module, or training to an equivalent standard. There should also be mandatory targets for the numbers of staff trained to this level.	AMBER
6. Brief intervention training should be undertaken by doctors, nurses, health visitors, admin staff, sonographers and other medical practitioners who work with pregnant women. Medical Royal Colleges, Health Education England, the National Centre for Smoking Cessation and Training, service managers and voluntary organisations – among others – have a role to play in promoting the uptake of this training.	AMBER
	RED
7. Training courses are not enough. Service managers should ensure that there are good role models available to support colleagues through support and supervision. Less experienced staff can learn through mentoring, gaining experience in how to talk to women and interpreting different CO readings.	RED
	AMBER
	GREEN

## Appendix 2

*Refreshed Recommendations for 2015. Smoking Cessation in Pregnancy: A review of the challenge (2015)*

<b>Training</b>
1. CCGs and local authorities alongside SSS and Trusts need to implement the NICE guidance in relation to training. All midwives, and other health professionals working with women who smoke while pregnant, should have training on smoking cessation that is appropriate to their role.
2. Health Education England should ensure that appropriate training is in the core curricula for all health professionals who come into contact with pregnant women and part of pre-registration training for midwives.
3. Local Education Training Boards should specify education on smoking in pregnancy, CO Screening and brief intervention training for all midwives be a mandatory part of continued professional development.
4. CCGs and Local authorities should ensure that all practitioners who assist pregnant women to stop smoking are sufficiently trained, achieving full NCSCT certification and completing the NCSCT specialty pregnancy online module, or training to an equivalent standard.
5. Medical Royal Colleges, Health Education England, the National Centre for Smoking Cessation and Training, service managers and voluntary organisations – among others – must promote brief advice training for doctors, nurses, health visitors, administrative staff, sonographers and other medical practitioners who work with pregnant women and their partners.
6. Service managers need to embed proper support and supervision into clinical practice. Less experienced staff should be supported through mentoring and learning from more experienced trained staff.

### Appendix 3: NICE recommendations

Table 1 Recommendations for health professionals and professional bodies from NICE PH26<sup>31</sup>

<p><b>Recommendation 1 Identifying pregnant women who smoke and referring them to NHS Stop Smoking Services – action for midwives</b></p>
<p><i>Who should take action?</i></p> <ul style="list-style-type: none"> <li>• Midwives (at first maternity booking and subsequent appointments).</li> </ul>
<p><i>What action should they take?</i></p> <ul style="list-style-type: none"> <li>• Assess the woman’s exposure to tobacco smoke through discussion and use of a CO test. Explain that the CO test will allow her to see a physical measure of her smoking and her exposure to other people’s smoking. Ask her whether she or anyone else in her household smokes. To help interpret the CO reading, establish whether she is a light or infrequent smoker. Other factors to consider include the time since she last smoked and the number of cigarettes smoked (and when) on the test day. (Note: CO levels fall overnight so morning readings may give low results.)</li> <li>• Provide information (for example, a leaflet) about the risks to the unborn child of smoking when pregnant and the hazards of exposure to secondhand smoke for both mother and baby. Information should be available in a variety of formats.</li> <li>• Explain about the health benefits of stopping for the woman and her baby. Advise her to stop – not just cut down.</li> <li>• Explain that it is normal practice to refer all women who smoke for help to quit and that a specialist midwife or adviser will phone and offer her support. (Note: a specialist adviser needs to offer this support to minimise the risk of her opting out.)</li> <li>• Refer all women who smoke, or have stopped smoking within the last 2 weeks, to NHS Stop Smoking Services. Also refer those with a CO reading of 7 ppm or above. (Note: light or infrequent smokers should also be referred, even if they register a lower reading – for example, 3 ppm.) If they have a high CO reading (more than 10 ppm) but say they do not smoke, advise them about possible CO poisoning and ask them to call the free Health and Safety Executive gas safety advice line on: 0800 300 363.</li> <li>• Use local arrangements to make the appointment and, in case they want to talk to someone over the phone in the meantime, give the NHS Pregnancy Smoking Helpline number: 0800 1699 169. Also provide the local helpline number where one is available.</li> <li>• If her partner or others in the household smoke, suggest they contact NHS Stop Smoking Services. If no one smokes, give positive feedback.</li> <li>• At the next appointment, check whether the woman took up her referral. If not, ask whether she is interested in stopping smoking and offer another referral to the service.</li> <li>• If she accepts the referral, use local arrangements to make the appointment and give the NHS Pregnancy Smoking Helpline number: 0800 1699 169. Also provide the local helpline number where one is available.</li> <li>• If she declines the referral, accept the answer in an impartial manner; leave the offer of help open. Also highlight the flexible support that many NHS Stop Smoking Services offer pregnant women (for example, some offer home visits).</li> <li>• If the referral was taken up, provide feedback. Review at subsequent appointments, as appropriate.</li> <li>• Where appropriate, for each of the stages above record smoking status, CO level, whether a referral is accepted or declined, and any feedback given. This should be recorded in the woman’s hand-held record. If a hand-held record is not available locally, use local protocols to record this information.</li> </ul>

## **Recommendation 2 Identifying pregnant women who smoke and referring them to NHS Stop Smoking Services – action for others in the public, community and voluntary sectors**

### *Who should take action?*

- Those responsible for providing health and support services for the target group of women. This does not include midwives (see recommendation 1). It does include:
- GPs, practice nurses, health visitors and family nurses. Obstetricians, paediatricians, sonographers and other members of the maternity team (apart from midwives).
- Those working in youth and teenage pregnancy services, children's centres and social services.
- Those working in fertility clinics, dental practices, community pharmacies and voluntary and community organisations.

### *What action should they take?*

- Use any appointment or meeting as an opportunity to ask women if they smoke. If they do, explain how NHS Stop Smoking Services can help people to quit and advise them to stop. Offer those who want to stop a referral to NHS Stop Smoking Services.
- Use local arrangements to make a referral. Record this in the hand-held record. If a hand-held record is not available locally, use local protocols to record this information.
- Give the NHS Pregnancy Smoking Helpline number in case they want to talk to someone over the phone in the meantime: 0800 1699 169. Also provide the local helpline number where one is available.
- Those with specialist training should provide pregnant women who smoke with information (for example, a leaflet) about the risks to the unborn child of smoking when pregnant. They should also provide information on the hazards of exposure to secondhand smoke for both mother and baby and on the benefits of stopping smoking. Information should be available in a variety of formats.

## **Recommendation 8 Training to deliver interventions**

### *Who should take action?*

- Commissioners of NHS Stop Smoking Services. Maternity services.
- Professional bodies and organisations. NHS Centre for Smoking Cessation and Training. Other providers of smoking cessation training which meets the national standard.

### *What action should they take?*

- Ensure all midwives who deliver intensive stop-smoking interventions (one-to-one or group support – levels 2 and 3) are trained to the same standard as NHS stop-smoking advisers. The minimum standard for these interventions is set by the NHS Centre for Smoking Cessation and Training. They should also be provided with additional, specialised training and offered ongoing support and training updates[4].
- Ensure all midwives who are not specialist stop-smoking advisers are trained to assess and record people's smoking status and their readiness to quit. They should also know about the health risks of smoking and the benefits of quitting – and understand why it can be difficult to stop. In addition, they should know about the treatments that can help people to quit and how to refer them to local services for treatment. (Acquisition of this knowledge and skill set is part of level 1 training in brief stop-smoking interventions [5] .
- Please note, midwives are not advised to carry out brief interventions with pregnant women. However, they are advised to use these skills to initiate a referral to NHS Stop Smoking Services.)

- Ensure midwives and NHS stop-smoking specialist advisers who work with pregnant women:
  - know how to ask them questions in such a way that encourages them to be open about their smoking always recommend quitting rather than cutting down have received accredited training in the use of CO monitors.
  - Ensure brief stop-smoking interventions (level 1) and intensive one-to-one and group support to stop smoking (levels 2 and 3) are incorporated into pre- and post-registration midwifery training and midwives' continuing professional development, as appropriate.
  - Ensure all healthcare and other professionals who work with the target group are trained in the same skills – and to the same standard – as those required of midwives who are not specialist smoking cessation advisers. This includes: GPs, practice nurses, health visitors, obstetricians, paediatricians, sonographers, midwives (including young people's lead midwives), family nurses and those working in fertility clinics, dental facilities and community pharmacies. It also includes those working in youth and teenage pregnancy services, children's centres, social services and voluntary and community organisations.
  - Ensure all the healthcare and other professionals listed in the previous bullet:
    - know what support local NHS Stop Smoking Services offer and how to refer the women being targeted
    - understand the impact that smoking can have on a woman and her unborn child
    - understand the dangers of exposing a pregnant woman and her unborn child – and other children – to secondhand smoke.
  - Ensure all training in relation to smoking and pregnancy addresses the:
    - barriers that some professionals may feel they face when trying to tackle smoking with a pregnant woman (for example, they may feel that broaching the subject might damage their relationship)
    - important role that partners and 'significant others' can play in helping a woman who smokes and is pregnant (or who has recently given birth) to quit. This includes the need to get them to consider quitting if they themselves smoke.

## Appendix 4: Focus Groups Topic Guide

1. In a professional capacity – where does smoking in pregnancy fit into your priorities when caring for pregnant women?  
Probes – Is this an issue you address with your patients?
2. How do you address smoking when you see a pregnant patient who smokes?
  - a. Probes - What techniques do you use? What do you do?
  - b. How do you feel about addressing smoking with pregnant women/using these techniques? Are there any barriers?
  - c. [if not confident/happy/motivated etc.] What would make you feel more confident / happy / motivated?
3. What resources are you aware of within the health service that you can provide to pregnant women who smoke or refer them on to?
  - a. Probes:
    - i. Do you know about stop smoking services and how to refer to them in your area?
    - ii. How did you find out about them?
    - iii. How should you find out about them?
4. Are you aware of any current guidance, either locally or nationally, related to smoking in pregnancy?
5. Whose role do you think it should be to address smoking in pregnancy?
6. Tell me about training you have in relation to the consequences of smoking in pregnancy and actions to take to address smoking:
  - a. Probes: consequences/actionsAwait general answer, then:  
I am going to put some specific areas for you to discuss on the table and **Bring out pieces of paper each with one of the following on:**  
i) Brief advice ii) Nicotine replacement therapy iii) Carbon monoxide monitors/Carbon monoxide monitoring.
  - b. Probes: Have you received training on any of these issues?
    - i. When?
    - ii. Undergraduate, postgraduate?
    - iii. What format?
    - iv. Who was it provided by?
    - v. How did you feel about it?
7. What areas do you feel you (and/or colleagues in your profession) need more training in?
  - a. Probes: How important is this to you?
8. When/what stage in your careers do you think it is most appropriate to receive training on addressing smoking?
9. In what format would you consider it most appropriate to provide training around addressing smoking for obstetricians?
  - a. Probes:
    - i. How often?
    - ii. Who should provide this?
    - iii. Benefits/disadvantages of different formats?

- b. If not covered:
  - i. E-learning
  - ii. Didactic teaching
  - iii. Workshops
  - iv. Hospital induction
  - v. Mandatory/Optional/Recommended

**10.** What factors influence whether you or others would or wouldn't undertake training on issues associated with addressing smoking? This concerns any available existing training or any potential training in the future.

## Appendix 5: Survey on Training Related to Smoking in Pregnancy

This survey aims to assess the training needs of midwives and doctors related to smoking in pregnancy. It is open to qualified midwives and doctors working in obstetrics & gynaecology (at all levels of seniority) who are currently practising in England.

This survey is confidential and answers will remain anonymous.

Please answer honestly as this will contribute to recommendations regarding the training you may receive or may be required to undertake.

This survey will close on Sunday 12th March 2017

To enter the draw to win £100 for participating in this survey, please enter your name and email address in the box below. Your answers will remain anonymous.

Are you are happy for us to contact you further regarding your answers? (Your answers will remain anonymous and we will not send you spam).

Yes

No

\* Do you provide care for pregnant women?

Yes

No - Apologies this survey is for healthcare professionals who provide care for women in pregnancy in England. Many thanks for your time and effort

\* Do you work in England?

Yes

No - Apologies this survey is for healthcare professionals who provide care for women in pregnancy in England. Many thanks for your time and effort.

\* Please enter your age range

\* In which year did you qualify (as a midwife or doctor)?

\* Who are you?

a midwife

a doctor

\* Please enter your job role

\* Please select ALL the areas that you have worked in within the past 3 years

Antenatal clinic

Antenatal ward

Postnatal ward

Community

Stand alone birth centre

Alongside midwifery unit

Labour ward

Maternity assessment

Maternity triage

Fetal medicine

Other (please specify)

Which of the following areas would you consider as your main area of practice (tick ALL that apply)

Antenatal care

Postnatal care

Intrapartum care

\* Are you a public health midwife or equivalent?

No

Yes

\* Are you a specialist midwife with a role other than in public health?

No

Yes - Please specify role

\* Please enter your job role

\* Please select ALL the areas that you have worked in within the past 3 years

Antenatal clinic

Antenatal ward

Postnatal ward

Labour ward

Maternity assessment

Maternity triage

Fetal medicine

Early pregnancy unit

Other (please specify)

\* Where in England do you work?

North West

North East

Yorkshire and the Humber

West Midlands

East Midlands

East of England

South West

South East

London

\* Have you had training specifically related to smoking in pregnancy within the last:

1 year

2 years

3 years

4-6 years

7 or more years

Never

Can't remember

\* Have you ever had training on any of the following either as an undergraduate, after qualification (as a midwife or doctor) or both?

The harms of smoking  
The effects of smoking on pregnancy  
Motivational interviewing  
Use of a carbon monoxide monitor  
Ask, Advise, Act sequence.  
How to refer to stop smoking services  
Nicotine replacement Therapy

\* Do you personally use the following in your practice? (tick ALL that apply)

A carbon monoxide monitor  
Ask, Advise, Act sequence  
Referral to stop smoking services (or specialist midwife if available)  
Prescription of nicotine replacement therapy  
None of the above

\* Have you read any of the following documents? There is no correct answer and your answer is anonymous.

NICE PH26 Smoking: stopping in pregnancy and after childbirth  
Saving Babies' Lives: a care bundle for reducing stillbirth  
Smoking in Pregnancy Challenge Group: Use of electronic cigarettes in pregnancy: a guide for midwives and other healthcare professionals  
Your Local Trust/Departmental Smoking in Pregnancy Guideline or Pathway  
None of the above  
Other (please specify)

\* Are you aware of the local stop smoking services or resources in your local area and how to refer women to them?

Yes I am aware of local stop smoking services/resources and how to refer  
I am aware of local stop smoking services/resources but do not know how to refer  
I do not know about local stop smoking services/resources or how to refer

\* When would training related to smoking in pregnancy be beneficial? (tick ALL that apply, including outside of your own profession)

At undergraduate level  
During preceptorship for newly qualified midwives  
For practising midwives after preceptorship  
During foundation years (pre-registration) for doctors  
During obstetrics & gynaecology specialty training for doctors  
At Consultant level

\* Beyond undergraduate level, what is the best way for training on smoking in pregnancy to be provided?

by the hospital trust/department at induction  
as part of mandatory training  
as an optional choice for continuing professional development  
as part of speciality training/eportfolio competencies  
as part of regional teaching sessions for doctors in training  
as part of multidisciplinary departmental teaching  
Other (please specify)

\* How often should training on smoking and pregnancy including updates be provided?

yearly

every 2 years

every 3 years

more than every 3 years

once only

never

\* Please select which methods of training you would be most likely to undertake with respect to smoking in pregnancy (tick ALL that apply)

E-learning module

Video teaching

Traditional lecture style teaching

Small group teaching

Role play sessions

Webinar

Workshops

Other (please specify)

\* Please indicate your single most preferred method for training related to smoking and pregnancy

E learning module

Video teaching

Traditional lecture style teaching

Small group teaching

Role play sessions

Webinar

Workshops

Other (please specify)

\* What are the main barriers you encounter to training related to smoking in pregnancy? (tick ALL that apply)

It is not a priority for me

It is not a priority for the women I see

I do not have time/my workload is too high for training

I am unable to find cover/be released from work for training

Training is not provided within my workplace

I am unaware of what training is available

Training available is not in a format that I like

The training available is not useful

I do not face any barriers to training

Other (please specify) or Comments

\* I would be most likely to undertake training related to smoking in pregnancy if (tick ALL that apply)

It was mandatory (by my Trust or Department)

It was multidisciplinary

I was given protected time in work to complete it

I was able to undertake the training at home or in my own time

The programme was accredited for revalidation/continuing professional development

The training was in my preferred format

The training took a maximum length of time (please specify in 'Other' below)

Other (please specify)

\* I would like more training on the following areas with respect to smoking in pregnancy (tick ALL that apply)

Theoretical knowledge on the effects of smoking in pregnancy

Practical actions to take when encountering a pregnant woman who smokes

Communication skills related to smoking in pregnancy

Ask, Act, Advise sequence

Nicotine replacement therapy

Use of carbon monoxide monitors

How/where to refer to local stop smoking services

Current guidance around smoking and pregnancy

E-cigarettes

I do not want training related to smoking and pregnancy

Other (please specify)

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