SMOKING CESSATION IN PREGNANCY

A review of the Challenge

October 2015

smoking in pregnancy challenge group

Organisations endorsing this report

ASH - Action on Smoking and Health
Bliss
Community Practitioners' and Health Visitors' Association
Faculty of Public Health
Family Nurse Partnership
FRESH Smoke Free North East
Institute of Health Visiting
National Centre for Smoking Cessation & Training
NCT - National Childbirth Trust
Public Health Action - Smokefree South West
Royal College of Obstetricians and Gynaecologists
Royal College of Paediatrics and Child Health
Royal College of Midwives
Royal College of Nursing
Royal Society for Public Health
Sands – Stillbirth and neonatal death charity
The Lullaby Trust
Tobacco Control Collaborating Centre
Tobacco Free Futures
Tommy's, the Baby Charity
UK Centre for Tobacco and Alcohol Studies

smoking in pregnancy challenge group

Chaired by Francine Bates, Chief Executive of The Lullaby Trust and Professor Linda Bauld, University of Stirling and UK Centre for Tobacco and Alcohol Studies (UKCTAS)
With thanks to ASH for compiling the report, Public Health England for their technical support and delegates at the 2015 Smoking in Pregnancy Challenge Group Seminar for their input.

Smoking Cessation in Pregnancy: A review of the Challenge

In March 2012 the then Public Health Minister set a challenge to the public health community to identify how progress could be made to further reduce the number of women who smoke during pregnancy. A major Government ambition in the Tobacco Control Plan for England (2011) - *Healthy Lives, Healthy People* - was to reduce smoking in pregnancy from 14% to 11% by 2015. However, in 2012 it was clear that progress was slow.

The Challenge Group was therefore established. It is a collaboration of charities, academia and Royal Colleges who pooled their expertise to publish a report in 2013: *Smoking Cessation in Pregnancy: A call to action*. Much has been achieved since this document was published. However, with the Government's tobacco plan for England coming to an end in 2015 and a new strategy now planned, it is timely to review the Group's original recommendations and define a new mandate for the next five years.

This short paper reviews progress against each recommendation and identifies priority areas for future action. It has been developed by Challenge Group members and through the feedback of a range of professionals and academics working in the field. An online survey was conducted in May and June 2015 and further feedback was gathered through a Challenge Group event on 21st May 2015 attended by around 100 professionals.

What we have achieved

Good progress has been made on many of the recommendations made by the Challenge Group in 2013 and this has been reflected in progress towards the Government's ambition of 11% or less of women smoking at the time of delivery. Recent data shows that for 2014/2015 the prevalence of smoking at time of delivery was 11.4% (10.7% for Q1, 2015/2016).[1]

Achievements against the Challenge Group's 2013 recommendations include:

- There has been impressive collaboration in developing **better communication** tools and processes both for pregnant women and for professionals, including new briefings and agreement on key messages.
- **Digital communications** have been boosted through Public Health England's investment in development of the Information Service for Parents, which is an email and text message system covering a range of issues, including smoking.
- Progress has been made in many localities towards **implementing CO screening** of all pregnant women. This has been particularly well embedded in areas which have implemented the babyClear* programme.
- There has been **improvement in referral pathways** in parts of the country, with examples of broad multi-disciplinary partnerships being established across the new health systems.
- Public Health England has taken a strong lead in collaboration with others to **disseminate NICE guidance** on smoking in pregnancy with a series of nine regional events attended by almost 500 health professionals.
- Both Public Health England and NHS England have taken **system leadership** seriously and have identified senior Smoking in Pregnancy Champions to drive forward action across their organisations.

* babyClear is a system-wide approach to identifying, referring and supporting pregnant women to stop smoking support, including awareness raising & engagement, training, performance management, monitoring & evaluation

- The Smoking in Pregnancy Challenge Group has played an important role in driving forward work on communications and **maintaining the profile of smoking in pregnancy** as an issue for both the media and politicians.
- Progress has been made on better embedding smoking in pregnancy into **local authority practice** through changes to the local authority tobacco improvement tool: CLeaR[†].
- The three areas with **regional offices** of **tobacco control** have taken a strong lead in supporting local areas to develop better approaches to smoking in pregnancy.

Despite the growing commitment of health professionals and local authorities to tackling this agenda, the funding challenges faced by the whole system and particularly public health create uncertainties about whether this progress can be maintained. The Smoking in Pregnancy Challenge Group urge the Government to consider the implications of cuts to public health budgets in sustaining the important work of helping pregnant women to quit smoking.

What still needs to be done

While we are now on track to meet the Government's ambition of 11% prevalence for smoking in pregnancy by the end of 2015, this remains an area where further progress is vital and there is much more to be achieved. In the region of 70,000 infants every year are born to mothers who smoke, with significant differences between some communities and particularly high rates in those under 20 years old. Smoking is the single biggest modifiable risk factor for poor birth outcomes and a major cause of inequality in child and maternal health, with smoking in pregnancy vastly more common among disadvantaged groups in society.

There are short and long term benefits to society from investing in efforts to reduce smoking in pregnancy. Addressing smoking in pregnancy can deliver tangible benefits to disadvantaged communities and NHS and local authority budgets. Failure to prevent smoking in pregnancy results in increased costs throughout the system from before a child is even born and for the rest of his/her life:

Life stage	**Additional burden**
Prenatal	More complications in pregnancy and at birth Increased likelihood of miscarriage Increased likelihood of stillbirth
Postnatal	Increased risk of preterm and low birth weight babies Increased risk of Sudden Infant Death Syndrome
Infancy	Slower rates of development Increased likelihood of illness
Childhood	Increased likelihood of lower educational attainment Increased likelihood of illness
Adolescence	Increased likelihood of becoming a smoker
Early adulthood	More likely to smoke during pregnancy
Later adulthood	More likely to need health and social care services early

Table 1: Impact of smoking in pregnancy throughout the life course

[†] CLeaR is an evidence based improvement model to help develop local action to reduce smoking prevalence and the use of tobacco, providing a free self-assessment tool to assist in evaluating the effectiveness of local action and a voluntary peer assessment process to provide an independent challenge.

In reviewing the recommendations and reflecting on the changed health and public health systems since the Challenge Group formed, a number of important insights have emerged.

Local activity to tackle smoking varies enormously across the country. Feedback from colleagues in some areas indicates that real progress is being made with appropriate investment and leadership:

> *"At a local level we have had a steering group comprising public health specialist (chair), heads of midwifery, CCG and stop smoking service manager, reporting to both CCG and Health and Wellbeing Board, and with the CCG adopting smoking in pregnancy as a quality premium indicator. [What's needed is a] Systematic approach based on challenge group report."*

However, this was by no means a universal story even where further investment had been made to improve processes:

> *" In [region] there is a robust referral pathway for pregnant women… however there are varying levels of support across Maternity Services, LA and CCG's…differing structures within Stop Smoking Services… CCG's have yet to incorporate CO Screening as a requirement in service specifications and… [some] CCG's refuse to incorporate funding for ongoing disposable and equipment... In some areas midwives are still reluctant to engage with [CO Screening]. Capacity within Stop Smoking Services in some areas has been significantly reduced…"*

This quote highlights some of the key issues raised by areas where progress on tackling smoking in pregnancy is moving slowly.

First, **the lack of engagement to date of Clinical Commissioning Groups**. This appears to be a common experience and relates more broadly to engagement on smoking and tobacco control. It poses real challenges given the need to change practice in maternity services which are commissioned through CCGs. CCG engagement was seen as a vital facilitator in making progress locally but it was unclear to many professionals how to secure this.

Feedback also indicates that **some groups of professionals could take a stronger role in addressing smoking in pregnancy,** notably Obstetricians, Health Visitors and GPs. Professionals see a strong role for Health Visitors who are often enthusiastic about doing more to support women and their families tackle their smoking, but may need more support and training. However, appropriate levels of engagement from GPs and Obstetricians was felt lacking in many areas although their interventions were seen as most likely to have an impact on pregnant women. There were concerns that without their support messages would not be consistently communicated and this would undermine effectiveness of work.

The loss or erosion of specialist stop smoking services in local authorities was highlighted as a risk for the future. While most areas maintain some levels of specialist service, this may change. This was highlighted as an issue which may get worse over time as further pressures are placed on local public health budgets. The loss of specialist services is seen as a challenge not only for the quality of care and support which pregnant women might receive from these services but also for the loss of expertise and training of more general services in primary and secondary care, a role currently undertaken by many stop smoking services.

There is a **lack of clarity about local roles in relation to smoking in pregnancy and a subsequent lack of accountability for funding and delivery**. The changes to the health system have created some ambiguity locally about different responsibilities. This often poses

a stumbling block to activity. While some localities have addressed these ambiguities it is notable that solutions vary in context, sustainability and effectiveness. Roles and responsibilities that would benefit from further clarity include:

- Provision and maintenance of CO screening equipment
- Commissioning of services, interventions and the provision of training for primary and secondary care
- Achievement of the Government ambition of reducing smoking at time of delivery (SATOD) rates
- Ensuring referrals are made and picked up

In addition to these challenges for the system colleagues also noted that there was an area of activity often overlooked nationally and locally which they felt was not well addressed by the Challenge Group recommendations; that of **partners and families who smoke**. This has been noted by the Challenge Group and is reflected in the renewed recommendations at the end of this document.

We also received feedback that people would welcome the expansion of the Challenge Group beyond existing partners to include representation from those working in local services. This is something the Challenge Group will explore in any future activity.

Seven priority areas for national action have been identified following the review:

1. **A new national ambition to reduce smoking in pregnancy to less than 6% by 2020.** If we're to continue to reduce rates of smoking in pregnancy we need new ambitions to drive activity across the system. This target is more ambitious than the one recommended by ASH in their report Smoking Still Kills. Since that report was published new data has demonstrated a faster rate of decline among pregnant women and therefore an opportunity to go further, faster. **This target should be included in the new tobacco control strategy for England.**

2. **National leadership to provide clarity about the roles local authorities and local NHS organisations and others should play in tackling smoking in pregnancy.** NICE guidance provides recommendations for action across the health system, however, not all services are being commissioned and delivered to these standards. One of the major challenges is a lack of clarity about local roles. The new national strategy on tobacco should take the opportunity to clearly communicate where responsibilities lie in particular the division of responsibilities between CCGs, NHS Trusts, local public health teams and local primary care providers.

3. **A robust and consistent national data collection system implemented across the country.** While some areas have implemented effective systems to record the smoking status of pregnant women, in too many areas this is not happening routinely or in a robust fashion. It is evident from areas that have reviewed their processes that historic data is often found to be inaccurate or incomplete. **All** pregnant women should be CO screened at the booking appointment and this recorded to identify smokers and/or those at risk from CO exposure. Given that smoking in the single biggest modifiable risk factor for poor birth outcomes it is unacceptable that smoking status is still not being consistently recorded for all pregnancies. Without data at booking and throughout pregnancy it is not possible to assess performance and drive improvements in practise across the country.

4. **Training of professionals to tackle smoking in pregnancy must be nationally mandated.** Training programmes do exist but uptake is not high. Many professionals

are involved in supporting women through pregnancy, all of whom need to have appropriate levels of training. Little progress has been made to introduce the issue into core curricula or to ensure that training is ongoing through a health care professional's career. Without a step change in the way training happens progress will continue to be too slow.

5. **Opt-out referral of all pregnant women who smoke to specialist services must become standard practice across the country.** CCGs, NHS Trusts and local authorities must work to ensure that all women who would benefit receive an appropriate opt-out referral, as recommended by NICE guidance**.** Referral continues to be a problem between general and specialist services. There are a number of reasons for this, but it is vital that systems are put in place to ensure that all women who smoke receive a default referral which is followed up in a timely, appropriate and sensitive manner by specialist services.

6. **Public Health England and NHS England should publish a shared national communications strategy on tackling smoking among pregnant women and their families.** Much progress has been made delivering effective communications to pregnant women which must be maintained and progressed. It would be timely for PHE and NHS England to have a shared communications strategy to help support and co-ordinate local and regional activity. Targeted communication, particularly to those from more disadvantaged backgrounds, is vital to help support women in taking steps to stop smoking during their pregnancy. Accurate and consistent messaging is important, both in face to face discussions and in public messaging around the risks of smoking during pregnancy and where to get help or information.

7. **Research funders should continue to support high quality studies to help inform policy and practice on the best ways to help women to stop smoking in pregnancy.** Good quality evidence exists on smoking cessation interventions for pregnant women, much of it conducted in or directly relevant to the national context but more is needed. As smoking rates become even more concentrated in more disadvantaged populations, research relevant to these groups is needed. In addition, new developments like digital media interventions, electronic cigarettes and incentives require testing in a UK context and existing service developments need to be evaluated to inform future further implementation.

Refreshed recommendations for 2015

The recommendations below reflect progress made since 2013, changes to the system and the input of professionals from across the country. They represent a strong approach to driving down smoking rates in pregnancy and if fully implemented will ensure a significant decline in the number of babies born to mothers who smoke.

Section	Recommendation
Data collection	
1.	The new tobacco control strategy should include a strong commitment to ensuring that effective data collection takes place across the system. This should include a requirement that smoking status is collected at booking visit and throughout pregnancy and that it is recorded and validated using CO Screening.
2.	The new tobacco control strategy should set a timetable for NHS England to move to collecting smoking status at approximately 36 weeks gestation and validating this through CO screening.
3.	A briefing should be produced by NHS England, Public Health England and the Health and Social Care Information Centre outlining best practice for collecting the new Maternity and Children's Data Set. This should be produced without delay.
4.	The Department of Health should task Local Area Teams with bringing all CCGS to the same standards of data collection and implement support plans to address areas identified as having high rates of smoking in pregnancy and/or poor data collections.
5.	NHS England should ensure that CCGs commission and clinical/medical directors deliver adequate systems, equipment and training to collect and record CO readings during antenatal appointments and that appropriate time is allocated for this.
6.	Data systems should seek to capture better information on relapse rates and whether a women's partner smokers.
7.	Local authorities and local NHS organisations should establish how they can better share data regarding pregnant women who smoke.

8. Following the cancellation of the Infant Feeding Survey, the Government should consider alternative ways to collect ongoing data to record the age and socio-economic status of pregnant smokers. Such data is essential to understanding smoking in pregnancy rates and where work in this area should be prioritised.
Implementation of NICE guidance
Audit of guideline implementation:
1. PHE Centres, building on existing practice, should commission an audit to investigate the extent to which the NICE guidance on Smoking in Pregnancy has been implemented in local trusts. They should support CCGs and trusts found to have gaps.
2. All trusts and CCGs should sign the NHS Statement of Support for Tobacco Control[2] which includes a commitment to implement NICE guidance relating to smoking.
3. NHS England must ensure that all CCGs commission maternity services to meet NICE Guidance on Smoking in Pregnancy.
Identifying and referring smokers:
1. CCGs and local authorities should work in partnership to ensure that there is an effective and robust referral pathway for pregnant smokers.
2. CCGs should ensure that CO monitors are provided for midwifery staff, to enable routine CO screening during pregnancy, and that clear procedures are in place for the regular calibration of the CO monitors where needed.
3. CCGs should include a requirement in service specifications that all women are screened for CO at booking and that midwives are given the time, training and tools to do this. Standards should ensure that midwives give very brief advice on cessation to identified smokers and promptly refer those with a CO score of 4 or higher to local Stop Smoking Services (SSS).
Supporting pregnant women to quit
1. Localities need to increase the number of pregnant women that smoke who have specialist interventions through stop smoking services. The following suggestions for practice should improve this outcome:

- Local authorities and stop smoking services should ensure that there is sufficient expertise available to meet the needs of all pregnant smokers. Women should be involved in the development of services and health and wellbeing boards should review whether their needs are being met as part of the joint strategic need assessment.
- Local authority commissioners should include a requirement in service specifications that all women are phoned by the local SSS within one working day of receiving a referral and seen within one week.
- Local stop smoking services should offer intensive support programmes for pregnant smokers up to the point of delivery and up to two months post-partum (or longer if appropriate to prevent relapse).
- Local authorities and the NHS should follow the NICE guidance on NRT provision to pregnant women.
- Stop smoking services should develop close working links and cross referral pathways with third sector organisations at community level who provide on-going support and advice to young families and young women.

2. Health and wellbeing boards should prioritise reducing the prevalence of smoking during pregnancy, ensuring that there are clear and streamlined pathways in place to identify and support pregnant smokers, and that services meet the needs of the local population.

3. Local authority tobacco control plans should ensure that the wider activity of tobacco control supports work to reduce smoking in pregnancy e.g. through work with children's centres, activity to support smokefree homes, delivery of stop smoking services to parents and grandparents, work with target populations with high smoking rates and teen pregnancies.

4. Local commissioners and national standard setting organisations should give more consideration to the role Health Visitors can play in supporting pregnant women to quit smoking prior to birth and maintain abstinence following birth.

Training

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.
Communication between health professionals
1. Public Health England and NHS England should maintain their senior officer champions to ensure that every opportunity to tackle smoking in pregnancy is taken.
2. The Smokefree Action Coalition (SFAC) should explore ways to support PHE and NHS England through providing forums where professionals are able to share good practice. PHE should explore how this could be sustainably resourced.
3. The SFAC should continue to support this agenda through the Smoking in Pregnancy Challenge Group and the wider activity of member organisations.
4. The CLeaR^3 partnership should routinely review items in the CLeaR model to ensure that smoking in pregnancy is considered comprehensively across local government services and policy.
5. Offices of tobacco control, where they exist, should continue to support their region to reduce smoking in pregnancy levels by developing protocols, encouraging partnership working and sharing good practice. Where there is no office of tobacco control PHE Centres should endeavour to support localities to prioritise and take action.
6. The Department of Health should task the National Screening Committee with including CO screening as part of its antenatal screening programme.
Communication with the public

1. Members of the Challenge Group, Public Health England and the Department of Health should maintain and disseminate the key messages document to ensure all relevant organisations speak about smoking in pregnancy with common messages.
2. CO Screening leaflets for pregnant women and professionals should continue to be made available and used locally.
3. Public Health England should build and expand upon the Start4Life brand, ensuring that all pregnant women are aware of the risks of smoking in pregnancy, the benefits of quitting, the support available to help them quit, and the importance of CO screening.
4. Public Health England and NHS England should work with the Challenge Group to develop a communication strategy for England. This should aim to co-ordinate national activity and support and inform the development of local activity.
5. Public Health England should continue to support the development of digital interventions and make recommendations to local organisations about what interventions are effective for work with pregnant women.
6. Local areas should consider the evidence around incentive schemes to help pregnant women quit smoking and make appropriate decisions about local service delivery.
7. Where it is known that a mother is trying to conceive, health professionals and others who have contact with her and her partner and family should identify smoking status, provide very brief advice, and offer referral to stop smoking services.
8. Professionals who come into contact with pregnant women and their families should clearly communicate to the partners of pregnant women the benefits to the child from quitting smoking.

Reviewing 2013 recommendations

In reviewing the recommendations a number of factors have emerged that should be considered when reflecting on progress and next steps:

- Many items were **difficult to measure** or assess as they are dependent on local activities for which there is no official mechanism of feedback. For example, there is no national assessment of the extent to which NICE guidance is locally implemented.
- **The lead organisations for some issues has altered over recent years**. This is particularly the case in relation to the Maternal & Child Dataset. Where NHS England is responsible for commissioning, the Health and Social Care information Centre leads on implementation and Public Health England and Department of Health have advisory roles. Delays on this, along with other processes in development, have occurred whilst organisations prepare to deliver on their new roles and responsibilities.
- The **role of Clinical Commissioning Groups** (CCGs) is developing, but not as quickly as assumed by the Challenge Group in 2013. Whilst some CCGs are beginning to take on more responsibilities around this topic, both their understanding of smoking in pregnancy issues and engagement in local partnerships is still at early stages. This is a major issue for effective and sustainable action going forward.
- **Time in the booking appointment** continues to be reported as a barrier or potential problem, although it is acknowledged that this has implications beyond the smoking agenda, due to the increasing number of items that require addressing at this time.

Review of 2013 recommendations

The following is a review of the recommendations the Challenge Group made in 2013. There is some local and regional variation in whether recommendations are being met and this table attempts to reflect an overall national picture of performance which may not be true of every locality. These are judgements based on the expertise of Challenge Group members and feedback through the online consultation and national event.

Section	Recommendation	Rating	Progress
Data collection			
	1. NHS England should require that data on smoking status, collected at booking visit and throughout pregnancy, is recorded accurately and validated using CO screening. CCGs should include this requirement in service specifications.	**AMBER**	- NHS England are not currently able to mandate the collection of these items, needs to be a policy (DH) decision. - The Maternal & Children's Dataset (MCD) will include smoking status at booking and delivery – although not CO reading at present. - There is work underway in relation to behaviour change and maternity commissioning that PHE and NHS E are exploring.
	2. NHS England should consider whether continuing to collect Smoking at Time Of Delivery (SATOD) data is the best way of measuring smoking in pregnancy. An alternative would be to require trusts to collect smoking status at approximately 36 weeks gestation, validating this through CO screening. The feasibility of this should be explored. If this change is made, it should be introduced during a period when SATOD is still collected, to allow trends to continue to be examined and a comparison between the two measures to be made. This overlapping period should ideally be over three years.	**AMBER**	- SATOD is still the only viable data collection point. Although systems are not completely robust and still need improvement there is currently no suitable alternative. - Discussions are underway regarding the potential to collect information at the 36 week point. Some local areas are collecting this already (including CO reading). - Once the MCD commences smoking status at delivery will also be collected through this mechanism. Plans are to run the two systems in parallel to begin with.

3. NHS England should work with Public Health England and the Health and Social Care Information Centre to produce a briefing document, outlining best practice for collecting the new Maternity and Children's Data Set. This should include how the data should be collected; when it should be collected; who should collect it; where it should be submitted to; and how it should be used locally.	**AMBER** **AMBER**	- Initial communications and briefing took place at the beginning of the project around 18 months ago. - No formal updates have been circulated recently – technical issues to be resolved before large scale communication. - MCD Project Board to consider developing a communication strategy and key messages.
4. Once data collection is of a consistent and high standard across trusts, NHS England and CCGs should identify trusts with high or unchanging rates of smoking in pregnancy and support them to take action to reduce prevalence.	**RED** **AMBER**	- Data is now collated and reported by CCG and Local Area Team. - Questions remain as to how robust this is, with variations across the country in terms of how it is collected, recorded and reported. - There is no national support programme in place or currently planned. Regions, centres and local area teams (LAT) may be considering in some areas.
5. Clinical/medical directors should ensure that systems are in place to facilitate the collection and recording of CO readings during antenatal appointments. In addition to ensuring there is adequate time in the appointment, and that midwives are trained and equipped, they should ensure that there is space to record CO readings in women's pregnancy notes at each appointment.	**AMBER** **GREEN**	- Increasing number of areas are putting these systems in place. - Implementation of the babyClear programme is helping to achieve these elements more comprehensively, with a growing number of areas investing in this support. - Time in the booking appointment to carry out CO readings and related conversations is often highlighted as a key barrier.
6. The Health and Social Care Information Centre should provide aggregated SATOD data at NHS trust level, to enable trusts to benchmark themselves against one another. This could be achieved using the maternity and children's data set.	**RED** **AMBER**	- SATOD data is presented by CCGs and LATs, but not NHS Trust at present. - Further discussions could take place regarding the logistics of reporting by Trust, but as there is overlap across CCGs this may not be possible.

Implementation of NICE guidance		
Audit and implementation of guidelines:		
1. NHS England, in partnership with NICE, should commission an audit to investigate the extent to which the NICE guidance has been implemented locally and support areas found not to have acted on the recommendations. This should build on recent research by the University of Nottingham on the structure and extent of smoking cessation in pregnancy services in England[4].	**AMBER** **RED**	- No national exercise of this nature has been conducted. - PHE Midlands and East has commissioned and carried out an audit/review of the implementation of NICE guidance with some interesting findings. - This could potentially be replicated, but need to follow up on how it has been used by the local areas involved.
2. Government organisations (including the Department of Health, NHS England and Public Health England), relevant royal colleges and baby and parenting charities should coordinate a programme of work to promote and endorse the NICE guidance.	**AMBER** **GREEN**	- PHE (working in partnerships with ASH) co-ordinated a series of seminars based around implementation of the NICE Guidance. 9 seminars held with approx. 500 participants. - Report produced summarising findings and making suggestions for further progress.
3. There should be commitment from senior staff at a local level to ensure that the NICE guidance is fully implemented and that all relevant partners (midwives, relevant doctors, nurses, administration staff, pharmacists and those working in the voluntary/community sector) are engaged with the guidance. Senior staff includes directors of public health, heads of midwifery, clinical/medical directors and trust chief executives.	**AMBER**	- Difficult to measure and can change with different personnel. - Reports from local areas suggest that there is some commitment to some of the aspects in the guidance, but not always for full implementation. - Feedback at the PHE seminars indicates that this is a key facilitating factor for successful and sustainable action.
Identifying and referring smokers:		

4. CCGs and local authorities should work in partnership to ensure that there is an effective and robust referral pathway for pregnant smokers.	**AMBER** **GREEN**	- Much improvement is evident in pathways as services and partnerships develop. - Sustainability and robustness of pathways needs to remain a focus as can often be dependent on people as much as systems.
5. Providers (clinical/medical directors, finance managers and heads of midwifery) should ensure that CO monitors are provided for midwifery staff, to enable routine CO screening during pregnancy, and that clear procedures are in place for the training of staff and for the regular calibration of the CO monitors where needed.	**AMBER** **GREEN**	- Improvement still needed in this area and there are no consistent systems across the country. - Sustainability can be problem, particularly where staff changes occur and if monitors are not tracked, traced and taken care of.
6. CO screening should be part of routine care. CCGs should include a requirement in service specifications that midwives discuss smoking status at booking with all women and that all women are screened for CO. Midwives should give very brief advice on cessation to identified smokers and promptly refer a minimum of 90% of those with a CO score of 4 or higher to local stop smoking services. CO screening should be done in the first booking visit and throughout a woman's pregnancy. Providers should ensure that midwives are given the time, training and tools to do this; and should develop procedures to performance manage the process.	**AMBER**	- Many CCGs are still not completely up to speed with service specifications and CO screening is unlikely to be included in many at this stage. - This may be improving – key components of referral, pathways, follow up and NRT should also be included in specifications. - Sustainability of CO screening and delivery of brief advice also an issue. Monitoring, training and feedback required. Time often reported as an ongoing problem with the booking appointment.

7. Health and wellbeing boards (HWB) should ensure that those responsible for providing health and support services for pregnant women and young families (including primary care, local authority teams and community/voluntary organisations) are sufficiently equipped to enable them to identify smokers, raise awareness of the benefits of stopping, and offer referrals to local stop smoking services. They should also be supported to raise awareness of the dangers of secondhand smoke, identify partners and household members who smoke and advise that they receive support to quit from a local stop smoking service.	**RED** **AMBER**	- Unclear how engaged HWB boards are on this specific issue and is likely to vary across the country. - Many will have it noted as a priority but may not be utilising their position to the full extent to influence and ensure effective action is being taken. - Some providers are undertaking these activities but not necessarily directly as the result of HWB boards.
Local stop smoking services:		
8. Local authority commissioners and stop smoking services should ensure that there is sufficient expertise available to meet the needs of all pregnant smokers. Women should be involved in the development of services and health and wellbeing boards should review whether their needs are being met as part of the joint strategic need assessment.	**AMBER**	- Many areas are highlighting a risk to specialist services for pregnant women as overall capacity of SSS is reduced. - No specific audit of JSNAs has been conducted, so unclear the extent to which this is being used as a tool to address this need. - JSNA resource pack produced by PHE may help to rise and suggest actions.
9. Local authority commissioners should include a requirement in service specifications that all women are phoned by the local Stop Smoking Service within one working day of receiving a referral and seen within one week.	**AMBER**	- No way of knowing for certain if this is taking place. - Unlikely that a 24hour phone call is in all, or even many, service specifications. - Feedback from both maternity and SSS is that this would make a difference and that both pathways and contacting women need to be improved. - Anecdotal evidence that some areas are trying to achieve this. - Electronic referral systems would help.

10. Local stop smoking services should offer intensive support programmes for pregnant smokers up to the point of delivery and up to two months post-partum (or longer if appropriate to prevent relapse). This intervention should be provided by trained staff and be adequately resourced by local authority commissioners.	**AMBER**	- Risk to this going forward due to capacity of SSS and different commissioning arrangements in place in some areas. - Where services are available these are not always provided beyond delivery. - Could be improved by updating service specifications and working more closely with health visitors.
11. Local authorities and the NHS should follow the NICE smoking in pregnancy guidance on NRT provision, taking into account the update to the NICE guidance which is expected by 2014.	**AMBER** **GREEN**	- No full audit has been carried out on this issue, but feedback from midwives and services suggests limited NRT provision in some areas. - If a pregnant woman is referred to SSS then provision of NRT is more likely to be in likely with NICE guidance. - Often not available on maternity wards.
Training		
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**	- Increased provision of training opportunities in recent years - local activities, babyClear and NCSCT training, including midwifery briefing. - >2000 people have accessed NCSCT speciality module for smoking in pregnancy. - Training highlighted as a key facilitator to implementing NICE guidance, but problems remain with basic (undergrad) training for midwives and also mandatory training in Trusts relating to knowledge of smoking and systems. - Survey conducted and article published (2014‡) assessing current status of smoking & cessation education in UK nursing schools. Gaps identified and opportunities indicated. - Training that is appropriate to the individuals role, with all staff trained in VBA and those with the capacity, opportunity and

‡ Richards, B., McNeill, A., Croghan, E., Percival, J., Ritchie, D. & McEwen, A. (2014) Smoking cessation education and training in UK nursing schools: A national survey. Journal of Nursing Education and Practice, 4 (80):188-198.

		motivation to provide full SS interventions should be NCSCT Certified and complete the specialty module.
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 pre-registration training and continued professional development.	**RED**	- No developments in relation to training and education specifications from Nursing and Midwifery Council. - Opportunities exist to incorporate VBA training into medical school curriculums - evidence of at least one where completion of the NCSCT online VBA training is insisted upon.
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**	- No developments in relation to training and education specifications from HEE. - This issue is still left to local services, commissioners and providers to address. - Potential to develop NCSCT VBA module specifically for midwifery and SiP.
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**	- No developments in relation to training and education specifications from HEE. - NCSCT training & assessment programme and speciality module does meet this need, however there is no nationally mandated requirement for practitioners to complete the training. - NCSCT Midwifery Briefing may be a useful resource to support local practitioners for whom smoking cessation is not their main role.
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**	- No formal audit of training or related specifications has been undertaken. - Increasing numbers of people continue to complete the NCSCT on-line training modules. - Approx 10,000 people now have full NCSCT Certification and just over 2000 of these have completed the SiP specialty module.

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**	- A growing number of practitioners are being encouraged to engage with brief advice training either as part of 'making every contact count' (general) and electronic referral initiatives in hospitals (smoking specific). - Growing number of practitioners are completing the VBA for smoking cessation training module through the NCSCT – over 15,000 to date. - The VBA module is also available through BMJ e-learning and the Electronic Staff Record.
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**	- This is likely to be happening in some areas, but no way of tracking. - Sustainability is likely to be an issue, even where it does take place.
Communication between health professionals		
1. Public Health England should identify a senior officer to champion efforts to reduce smoking in pregnancy, working across sectors to ensure that every opportunity to tackle smoking in pregnancy is taken.	**GREEN**	- Dr Ann Hoskins is the PHE nominated Smoking in Pregnancy Champion (Deputy Director, Health & Well Being). - Regular meetings take place with the tobacco control team and opportunities explored to progress the agenda within the organisation and with external stakeholders
2. Health and wellbeing boards should prioritise reducing the prevalence of smoking during pregnancy, ensuring that there are clear and streamlined pathways in place to identify and support pregnant smokers, and that services meet the needs of the local population.	**AMBER**	- No formal audit of this has been undertaken. - Some may have it identified as a priority, but the way this is acted upon by member organisations and by the board as a whole is likely to be variable.

3. Public Health England should work with royal colleges (including the Royal College of Midwives, the Royal College of Nursing and the Royal College of Obstetricians and Gynecologists) and other professional organisations to ensure that there are national mechanisms in place to enable professionals to offer one another support and share good practice in reducing smoking in pregnancy.	RED AMBER	- Main mechanism for doing this is through the "Smoking in Pregnancy Challenge Group – Communicating with Pregnant women working group" - This meets quarterly and has email contact in between. - However main focus is communication with women, rather than between professionals.
4. Stop smoking services should develop close working links and cross referral pathways with third sector organisations at community level who provide on-going support and advice to young families and young women.	RED AMBER GREEN	- Some areas may do this, but not way of tracking. - Sustainability can often be an issue. - Local arrangements may be dependent on individuals and personal relationships rather than formal systems.
5. The Smokefree Action Coalition[5] should consider how it can encourage action to reduce smoking in pregnancy.	GREEN	- SFAC members are active in networks both nationally and locally engaging in SiP issues - Core members of the group participate in the 'Communicating with pregnant women' group, contributing substantially to development of the key messages document. - Members of the Coalition continue to promote both NICE guidance and Challenge Group report and recommendations.
6. The CLeaR[6] partnership should review items in the CLeaR model to ensure that smoking in pregnancy is considered comprehensively across local government services and policy.	GREEN	- CLeaR model and assessment questions have recently been reviewed - Smoking in pregnancy questions updated and enhanced. - Further review planned for 2015.
7. Offices of tobacco control, where they exist, should continue to support their region to reduce smoking in pregnancy levels by developing protocols, encouraging partnership working and sharing good practice.	GREEN	- All offices of tobacco control continue to prioritise smoking in pregnancy. - All host networks, seminars and support sharing and development of tools to assist with implementation of NICE guidance.

8. The National Screening Committee should consider CO screening as part of its antenatal screening programme.	**RED**	- This has not been addressed as yet.
Communication with the public:		
1. Member organisations of the Challenge Group, in partnership with, the Department of Health and Public Health England, should agree a consistent set of messages to inform professional bodies, parents, training providers, and other members of the voluntary sector on the key issues in smoking in pregnancy. The baby and parenting charities, with support from challenge group member organisations, should take a lead on producing and disseminating these messages.	**GREEN**	- Communication with pregnant women working group established and meets quarterly. - Shared key messages document developed collaboratively. - There is currently a 'final' version ready to be circulated for all organisations to use. This will be updated as new information and evidence emerges. - Discussion regarding wider cascade now ongoing.
2. The importance of CO screening should be communicated both to pregnant women and professionals, particularly midwives, through the development of two new resources outlining the dangers of CO. These two resources, comprising postcard size leaflets (one for women and one for professionals), should describe what different CO readings mean and what to do in the event of an abnormal reading. As part of the challenge group the Lullaby Trust, Tommy's, the Royal College of Nursing and the Royal College of Midwives have already taken a lead on their development (see Appendix 2).	**GREEN**	- Two resources produced and widely disseminated. - Both well received with feedback from RCM that midwives find them useful and Lullaby Trust receiving requests for further supplies. - Both resources now being updated. - Plans in place for wide reaching cascade, including through professional magazines and direct posting to HoM's, in addition to making further stocks available.
3. Public Health England should build and expand upon the Start4Life brand, ensuring that all pregnant women are aware of the risks	**GREEN**	- Start4Life brand, website and campaign have been expanded, with additional information regarding smoking in pregnancy and where to get help.

of smoking in pregnancy, the benefits of quitting, the support available to help them quit, and the importance of CO screening		- Information Service for Parents launched, which contains messaging around smoking. Review of messages underway and exploring opportunities for further messages regarding smoking to be included.
4. England needs a comprehensive, multi-agency, communications strategy to highlight the importance of stopping smoking in pregnancy, aimed at all women and their partners, as well as other members of the household. This should be developed by challenge group member organisations in conjunction with Public Health England. The strategy needs to make the best use of existing resources and, if necessary, make the case for additional funding.	**RED**	- No joint communication strategy has been developed as yet.
5. Digital interventions should be part of the development of future communication strategies for women who smoke during pregnancy to ensure the most effective (and cost-effective) interventions are in place across England.	**GREEN**	- A range of websites, forums, text message support, and digital apps are available, with the number and variety expanding. - Specific web applications include 'smokefree baby' app developed by UCL (evidence based support to make behaviour changes related to smoking) and the 'Best beginnings' app (general information supporting health throughout pregnancy). - Website and texts that incorporate information on smoking include Start4Life and Information Service for Parents. - Mi Quit provides text message support to quit smoking.
6. Where there is strong evidence to support an effective intervention this should be commissioned and implemented. For example, there is good evidence that incentive reward schemes are effective in supporting women to maintain a smokefree pregnancy. This is the responsibility of Clinical Commissioning Groups, Local Authorities and local stop smoking services.	**AMBER**	- CCG's, LA's and SSS commission a range of activities to encourage, identify and support women who smoke in pregnancy. - Limited number of areas working on incentive schemes, but often has positive impact where implemented and a growing interest from other areas. - Mapping exercise underway to collate examples of local activities.

7. Where it is known that a mother is trying to conceive, health professionals and others who have contact with her should identify the women's smoking status, offer smokers very brief advice, and refer them to stop smoking services.	**RED** **AMBER**	- This activity is not tracked or recorded. - Unlikely to be taking place routinely in all localities, but may form part of health screening for women.

Research needs

The report highlighted a number of research recommendations. Several relevant studies are being conducted or have recently reported these are mapped below.

Research need identified in 2013	**Activity since 2013**	**Studies in progress**	**Studies planned**
Research on Nicotine Replacement Therapy (NRT) use in pregnancy, including: safety and efficacy particularly of higher doses –i.e. combination therapy; greater understanding of how pregnant smokers use NRT and why adherence is low; and the development of effective interventions to increase adherence.	• NRT patches vs. Placebo – no difference, high adherence (85%) N=402; Berlin et al., 2014 *BMJ*	• 2 x Bupropion vs. Placebo N=150; 2011 – 2015, University of Texas, PIs Gary Hankins and Tatiana Nanovskaya N=360; 2014 – 2020, University of Pennsylvania, PI Henry Kranzler • NRT inhaler vs. Placebo N=360; 2010 – 2015, University of Connecticut, PI Cheryl Onken • Varenicline observational: major congenital malformation N=299, 2011 – 2015, Pfizer	• High dose NRT trial University of Nottingham, PI Tim Coleman • Development of an NRT adherence intervention University of Cambridge & Nottingham, PIs Felix Naughton & Tim Coleman
Research to better understand behaviour change techniques for smoking cessation in pregnancy, particularly	• Use of relapse prevention strategies – few strategies used. Self-talk and avoiding smokers predicted cotinine validated abstinence N=174,	• More detailed assessment of use of lapse prevention strategies N=402; from MiQuit trial, PI Tim Coleman	• NSPCR PhD studentship (recently appointed) refining BCTs in counselling behavioural support University of

which types of these techniques are effective among different groups.	Naughton et al, in press, *Journal of Health Psychology*		Nottingham, supervisor Tim Coleman
Studies examining the effectiveness of different referral methods from maternity services to stop smoking services, building on research already undertaken in the UK.	• Mixed methods: CO screening acceptable, but some trust concerns Stenhouse et al, 2014, *Plymouth Electronic Archive and Research Library* • Opt-out referral evaluation with time matched control – opt-out doubled quit dates and self-reported abstinence N=2,300 women, University of Nottingham, *in preparation* • Qualitative: opt-out referral pathway experience - positive response & impact of CO monitoring, less positive to automatic referral and many had failed SSS contact University of Nottingham, *in preparation* • Qualitative: opt-out referral pathway experience – midwifery assistants - pre-pathway concerns, post-pathway content and positive views University of Nottingham, *in preparation*		

Studies focussing on teenage pregnant women and effective mechanisms to engage and support this group to stop smoking.	• Scoping review – lack of effective interventions to prevent or reduce smoking and drinking during pregnancy Bottorff et al, 2014, *Health and Social Care in the Community*		• Tommy's IESD funded project 'Baby Be Smokefree' - pilot sites Kent and Blackpool 2014 – 2016, PI Becky Lang
Further research and pragmatic pilots on financial incentives for smoking cessation in pregnancy, including incentives with partners and social support network members, and incentives for health care providers including midwives to promote referral and provision of treatment.	• Financial incentives trial in Glasgow (contingent, up to £400 vouchers) + SSS support vs. SSS support - incentives more than doubled abstinence at end of pregnancy N=612; Tappin et al, 2015, *BMJ* • Review – over threefold increase in chance of abstinence N=1295; Cahill et al., 2015, Cochrane Database of Systematic Reviews • Single arm financial incentives cohort study in Derbyshire (contingent) - low rates of in-scheme gaming - 4% N=239; Ierfino et al, 2015, Addiction	• 2 x contingent financial incentives trials N=345; 2014 - 2018, University of Vermont, PI Stephen Higgins. N=300; 2015-2018, University of Paris, PI Ivan Berlin	
Research on cessation of smokeless tobacco products in pregnancy particularly in Black and Minority Ethnic groups.	• Review – pregnancy outcomes of smokeless tobacco – insufficient evidence, indications of associations with stillbirth and low birth weight Ratsch & Bogossian, 2014, *International Journal of Public Health*		

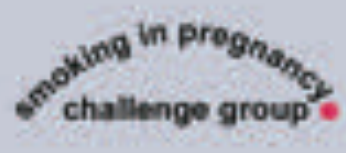
Studies on electronic aids for smoking cessation in pregnancy and new media interventions.	• Small survey of non-preg women on e-cigs – most saw cigarettes as more harmful than e-cigarettes N=184; Baeza-Loya et al, 2014, *Bulletin of the Menninger Clinic* • Survey knowledge/attitudes of preg women towards e-cigs – 13% ever used, 43% felt ecigs less harmful to a foetus than cigarettes N=316; Mark et al, 2015, *Journal of Addiction Medicine*		• Qualitative: attitudes towards ecigarettes among pregnant smokers or ex-smokers who have switched to ecigarettes 2015 – 2016, St Georges Medical School, PI Michael Ussher • Survey of pregnant smokers attitudes to ecigarettes University of Nottingham, PI Sue Cooper
Monitoring or audit work on a range of measurement issues related to smoking in pregnancy including, for example: the reliability of self report, pragmatic approaches to cotinine testing in clinical settings and whether the definition of low birth weight (<2.5kgs) in developed countries such as the UK should be raised.	• Assessment of the nicotine metabolite ratio (NMR) - higher NMR associated with reduced chance of abstinence. N=662; Vaz et al, 2015, *Nicotine & Tobacco Research*	• Assessment of changes of NMR throughout pregnancy PhD student Kate Bowker, University of Nottingham	
Research on effective interventions for partner and household members' smoking cessation.	• Systematic review and qualitative study of partners – range of partner related barriers and facilitators. Lothian and York, PI Linda Bauld, *in preparation*		• Social network interventions being developed, based on findings from above study and Cancer Research UK grant. University of Stirling, PI Fiona Dobbie

Further research on self-help interventions for cessation in pregnancy including: the best content for high quality written self-help materials; the optimisation of self-help digital interventions; and mechanisms to improve uptake of self-help interventions.	• Real world uptake of SMS support (MiQuit) – leaflet in booking notes generated approx. 4% uptake. N=1,750; Naughton et al, in preparation • Cessation support website (MumsQuit) vs. Information only website (pilot) – non-sig increase in abstinence in MumsQuit arm 28% vs. 21% N=200; Herbec et al, 2014, *Drug and Alcohol Dependence*	• SMS support (MiQuit) vs. usual care + cessation leaflet N=402; 2012 – 2015, University of Nottingham, PI Tim Coleman • SMS support (SmokefreeMOM) + quitline vs. SMS support vs. pamphlet. N=300; 2013 – 2015, George Washington University, PI Lorien Abroms • SMS support (baby steps II) + SMS to support gradual reduction vs. support messages alone. N=522; 2014 – 2017, Duke University, PI Kathryn Pollak • SMS support (quit4baby) vs. control. N=500, 2015 – 2016, George Washington University, PI Lorien Abroms	• SmokeFree baby app – factorial experiment to test app modules. UCL, Ildiko Tombor • SMS support (MiQuit) vs. Usual care. N=3,000, funding stage, University of Nottingham, PI Tim Coleman
Development and testing of relapse prevention interventions for smoking cessation in pregnancy, including behavioural support and NRT specifically for relapse prevention.		• Couple focused telephone counselling for postpartum relapse prevention in Romania – PRISM RCT. N=250; Protocol - Meghea et al., 2015, *Contemporary Clinical Trials* • CBT - focusing on mood, stress and weight – STARTS RCT N=300; 2007 – 2014, University of Pittsburgh, PI Michele Levine	

[1] HSCIC, Statistics on Women's Smoking Status at Time of Delivery, England - Quarter 4, 2014-15, Available from: http://bit.ly/1gOmsZQ
[2] NHS Statement of Support for Tobacco Control. Available from: http://bit.ly/1MlzXeg
[3] Public Health England, CLeaR - Excellence in local tobacco control. Available from: http://bit.ly/1jECxBk
[4] Fahy, S.J., et al, Provision of smoking cessation support for pregnant women in England: results from an online survey of NHS Stop Smoking Services for Pregnant women, 2013. Available from: http://bit.ly/1Wd1JOs
[5] The Smokefree Action Coalition is an alliance of over 300 health organisations including medical royal colleges, the British Medical Association, the Trading Standards Institute, the Chartered Institute of Environmental Health, the Faculty of Public Health, the Association of Directors of Public Health and ASH
[6] Public Health England, CLeaR - Excellence in local tobacco control. Available from: http://bit.ly/1jECxBk

ISBN: 978-1-872428-98-7

Cover design: www.zefrog.eu


smoking in pregnancy
challenge group