

September 2021

DELIVERY PLAN: MATERNITY TOBACCO DEPENDENCE TREATMENT SERVICE NORFOLK AND WAVENEY

NHS Long Term Plan

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Strategic aim

The NHS Long Term Plan includes funding for every trust over a 3-year period to develop an in-house (NHS) based tobacco dependence treatment service for pregnant women. The service must be established, offered and delivered by end of 2023/24. The 2021/22 operational Planning Guidance included a specific Long Term Plan objective in the Maternity Transformation Programme (MTP): make new NHS smoke free pregnancy pathways available for up to 40% of maternal smokers by March 2022.

The recommended model for pregnant women is more intensive than models for the non-pregnant population and should be delivered within maternity services – in house. It expands on recommendations in NICE guidance NG92 to drive engagement: despite good referral rates to LA SSS and outcomes when engaged, many women do not convert their referral to an appointment/quit. This is often not picked up until later in the pregnancy. The recommended model also builds on the Saving Babies' Lives Care Bundle version 2 (SBLCBV2), where all pregnant women should be assessed for carbon monoxide (CO) exposure at booking, the 36-week antenatal appointment and other appointments as appropriate. By focusing on the referral and treatment elements of SBLCBV2 and NG92, the model aims to increase engagement and improve outcomes

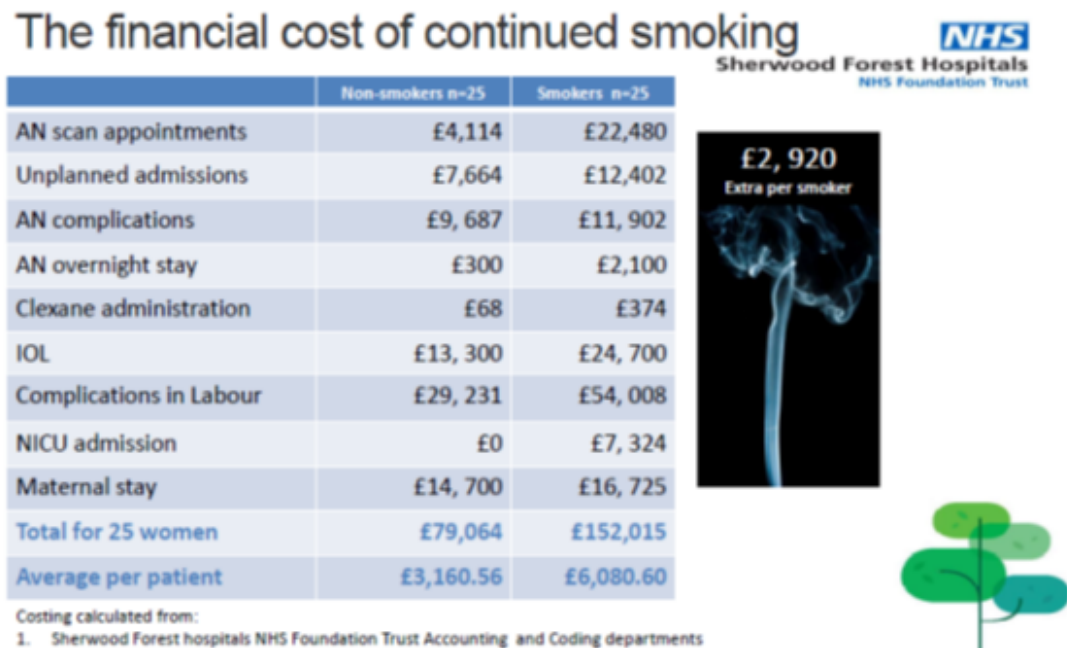
Local context

There were 8,870 births in 2019/2020, of which 2.7% (240 babies) had a low birth- weight (under 2.5kg), with 27 stillbirths. In 2020, national 8.9% of women smoked at time of delivery. In Norfolk and Waveney, the smoking at time delivery rate (SATOD) is significantly higher than the national average at 13.6% and remains outliers for the East of England. SATOD rates vary between districts in Norfolk and Waveney, due to varying levels of deprivation and of the average ages of mothers with higher smoking prevalence in areas of great deprivation and amongst 18- to 34-year-olds. Prevalence of smoking in pregnancy is higher in women who have never worked or are routine and manual workers. Within Norfolk the highest rates of smoking in pregnancy are in West Norfolk and Great Yarmouth. North Norfolk has the lowest SATOD rate, but remains above the national



Cost of Smoking in pregnancy

A retrospective study of 50 pregnant women (25 smokers and 25 non-smokers) at Sherwood Forest hospital predicts that the additional cost to the NHS for pregnant smokers Vs. pregnant non-smokers is **£2,920**.



Continued cost of smoking in pregnancy for Norfolk and Waveney is **£4,511,400** yearly (Based on 2019-2020 SATOB). This is a compelling case for investing in prevention.

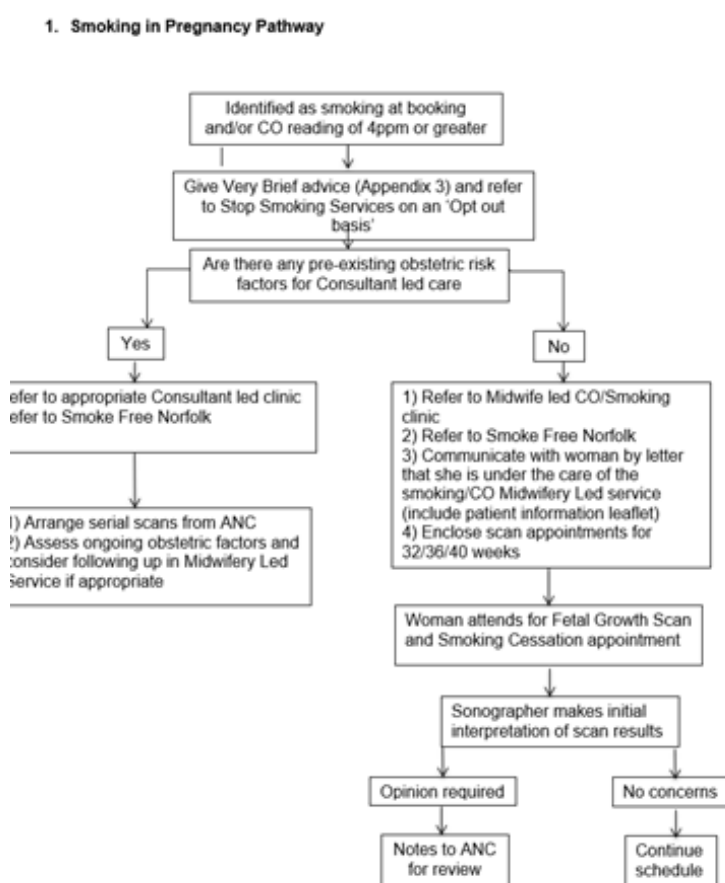
Smoking in pregnancy is recognised to have major health costs, both for the mother and her child. Smoking is recognised as the most significant modifiable risk factor for poor outcomes in pregnancy, including miscarriage, stillbirth and neonatal death. Smoking is also highlighted as a contributing factor towards pregnancy complications, including placental abruption, premature birth and low birth weight. Smoking in pregnancy contributes to an estimated 40% of all infant deaths and increases the risk of premature birth and inter uterine growth restriction by 12.5% and 26.3% retrospectively. In addition to this, a total of 1 in 14 babies in the UK have a low birth weight, which is associated with smoking in pregnancy and is known to have both immediate and long term health consequences for the neonate.

Current Smoking Cessation support:

In Norfolk and Waveney, specialist stop smoking support is offered to pregnant women and their partners by Smokefree Norfolk, Onelife Suffolk and Everyone Health. Currently, there is no NHS based smoking cessation support for pregnant women in Norfolk and Waveney.

The number of referrals of pregnant women and number of 4 week quits for each hospital trust is very low compared to the number of expected smokers despite promoting an 'opt-out' approach to referrals.

The current maternity pathway is as follows:



In 2020, A review of the Smoking in Pregnancy pathways at each trust in Norfolk and Waveney confirmed alignment to NICE guidelines including antenatal Carbon Monoxide monitoring and additional fetal growth scans for maternal smokers. However, Carbon Monoxide monitoring at booking was completed for 35% of pregnant women booking in Norfolk and Waveney (April 2021) which compares unfavourable to the >95% target. Furthermore, a recent audit conducted at Norfolk and Norwich University Hospital identified that 31% of missed intrauterine growth restrictions were attributed to failure to commence the growth scan pathway following smoking relapse during pregnancy.

Best practice and policy drivers

NICE guidance on stopping smoking in pregnancy and after childbirth identifies a series of recommendations to reduce smoking in pregnancy, including improving referral pathways, CO screening and communication between pregnant women and health professionals.

The National Centre for Smoking Cessation Training (NCSCT) has produced specific guidance for midwives, on stopping smoking and on the use of e-cigarettes within pregnancy. The Better Births initiative, to reduce rates of stillbirth, is another driver to reduce rates of smoking in pregnancy and smoking is one of the four elements of the Saving Babies' Lives Better Care Bundle. Furthermore, In July 2017, the Department of Health introduced a target to reduce the prevalence of smoking in pregnancy to 6% or less by the end of 2022 which will not be achieved in Norfolk and Waveney.

Vision for Norfolk and Waveney

The vision for Norfolk and Waveney reflects the nationally recommended model for maternity, within the context of the local demographic. Tobacco dependence treatment for pregnant women will be provided in-house, with the development of a new NHS based service. Each trust will have dedicated tobacco dependence specialists who will be linked to specific continuity of carer teams, to provide evidence-based and personalised support.

The Norfolk and Waveney LMNS has identified James Paget University hospital (JPUH) as the pilot site. JPUH has the highest prevalence of smoking in pregnancy in Norfolk and Waveney which is intrinsically linked to health inequalities, starting in the area of greatest need is the most equitable approach. JPUH will fully implement 'Continuity of Carer' by December 2021 which the Smokefree Pregnancy Advisors will work alongside and will facilitate locality-based education/ support packages for professionals and families. An incline for 'Smoking at time of delivery' data at JPUH has been identified as a 'red flag' by Norfolk County Council (Public Health England), whereas the rates for NNUH are static and are declining for QEH. The proposal is supported by the Head of Midwifery at JPUH and will be presented to the clinical committees, Director of Nursing, and trust board to be sighted on the proposal. The proposal is supported and signed off by the Norfolk and Waveney LMNS board. There will be continued improvement to smoking cessation support at NNUH and QEH including enhanced training, implementing a new Carbon Monoxide Monitoring tool and employing Maternity Health Supporters to improve referral rates to Stop Smoking Services.



Service delivery plan

Notes as per LUU submission to FHE revision 14/03/21

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		Recruitment							Induction							Service live													

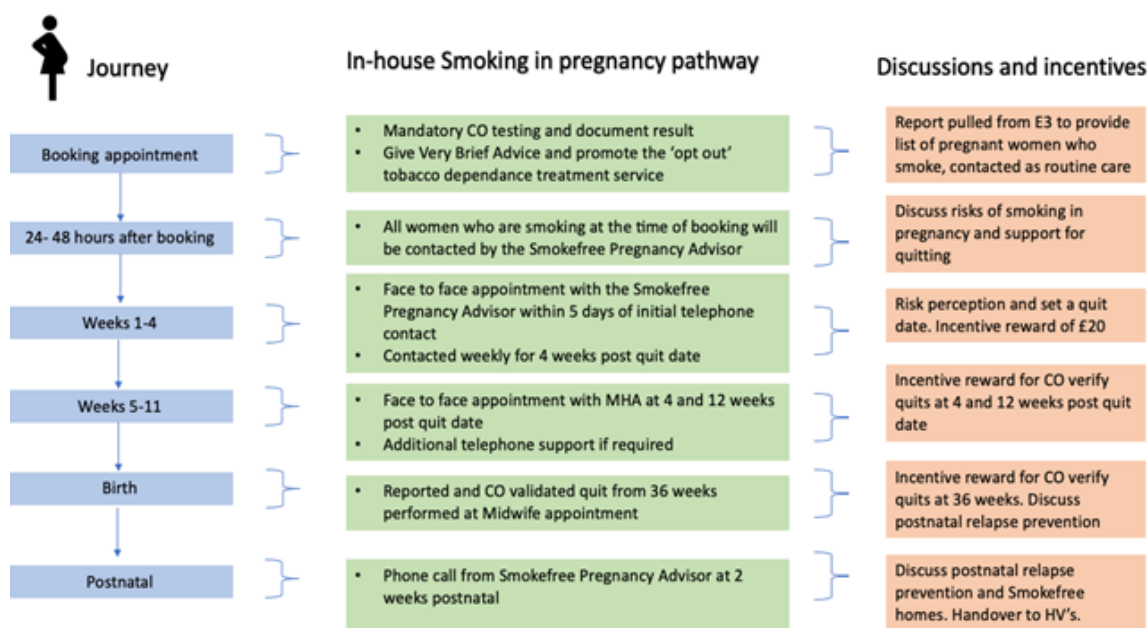
Year 1: Recruitment for the Smokefree Pregnancy Advisors (JPUH) will commence in November 2021, to be actively working by January 2021. The service will be launched at JPUH in March 2022 which will be 100% implemented by August 2022. In preparation to launch the service, planning is underway for the following:

- Job descriptions and training for the Smokefree Pregnancy Advisors
- Engaging key stakeholders at JPUH and the wider system
- The provision of NRT such as storage and supply
- Digital solutions for Smoking in Pregnancy
- Metrics and data collection
- Governance processes
- Communications for pregnant women and healthcare professionals

Year 2: Recruitment for the Smokefree Pregnancy Advisors (QEH) will commence in May 2022, to be actively working by July 2022. The service will be launched at QEH in September 2022, which is be 100% implemented by February 2023. Recruitment for the Smokefree Pregnancy Advisors (NNUH) will commence November 2022 and the service will be launched in February 2023.

Year 3: It is expected that 100% implementation system wide will be achieved by August 2023.

Proposed Smoking in Pregnancy Pathway



Initially, A 1:1 meeting with the Smokefree Pregnancy Advisor will be arranged at the first antenatal appointment, with a one-stop approach within a community hub being the ideal model. If this is not possible, women should be contacted within 1 working day to arrange the initial face-to-face appointment. The first face-to-face will take place within the first 5 days of the booking appointment if not already done so, Nicotine replacement therapy will be offered and supplied. The pathway has been agreed by a multi-agency task and finish group which encompasses the preferred national model for maternity, with some localisation based on our demographics and service user preferences. The follow up appointments will be as detailed below:

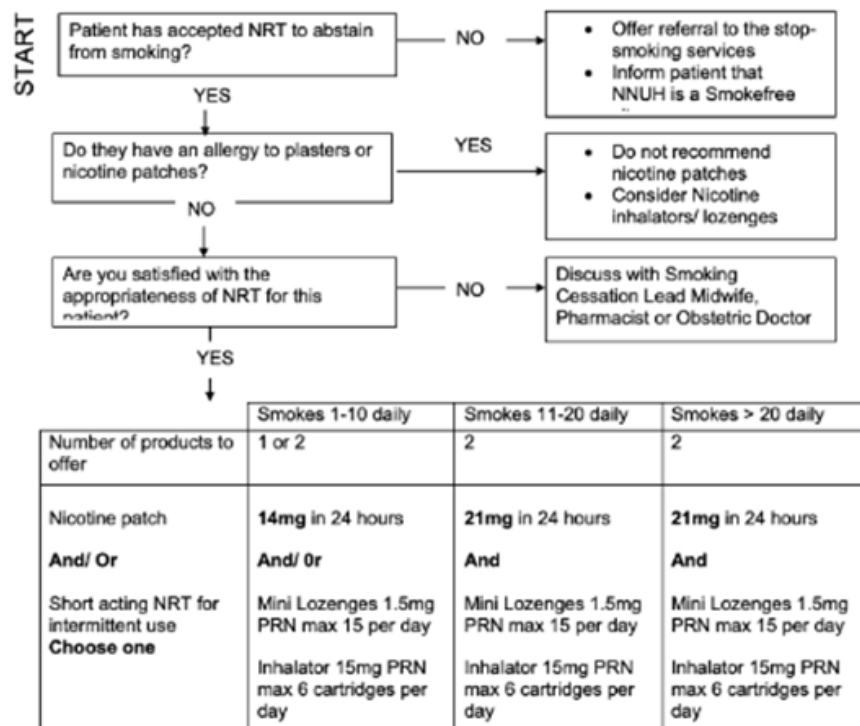
Time of contact	Mode of contact	Outline of session/ discussion	Resources required	Responsible
Booking appointment	Face to face	Mandatory CO reading for all pregnant women at booking performed and recorded. Accurately record smoking status on E3. Midwives to provide VBA.	N/A	Midwife
24-48 hours of Booking	Telephone	MHA to call every woman who is smoking at time of booking/ quit in the last 2 week. Discuss risks of smoking in pregnancy, support available and identify household members who smoke. Offer maternity pathway or LSSS (choice and personalization). Complete referral to LSSS if declines maternity led pathway.	Access to E3, Telephone, IT, Appointment booking system	MHA/SSA
Within 5 days of initial contact	Face to face	Risk perception and individual behavioural counselling. Discuss methods of quitting and offer NRT. Encourage to set a quit date and book future appointments. Incentive scheme for enhanced pathway.	Clinic room/ travel expenses for home visits, IT, Appointment booking system, NRT	MHA/SSA
Week 1 post quit	Choice of face-to-face, virtual or telephone	Discuss progress and use of NRT. Support based on individual need.	Clinic room/ travel expenses for home visits, IT, Appointment booking system, NRT	MHA/SSA
Week 2 post quit	Choice of face-to-face, virtual or telephone	Discuss progress and use of NRT. Support based on individual need.	Clinic room/ travel expenses for home visits, IT, Appointment booking system, NRT	MHA/SSA
Week 3 post quit	Choice of face-to-face, virtual or telephone	Discuss progress and use of NRT. Support based on individual need.	Clinic room/ travel expenses for home visits, IT, Appointment booking system, NRT	MHA/SSA
Week 4 post quit	Face to face	CO verify smoking status. Reiterate the risks of smoking in pregnancy and address barriers if not quit. Incentive scheme for enhanced pathway.	Clinic room/ travel expenses for home visits, IT, Appointment booking system, NRT	MHA/SSA
Week 12 post quit	Face to face	CO verify smoking status. Reiterate the risks of smoking in pregnancy and address barriers if not quit. Incentive scheme for enhanced pathway.	Clinic room/ travel expenses for home visits, IT, Appointment booking system, NRT	MHA/SSA
36 week's gestation	Face to face	CO verify SATOD status, discuss postnatal relapse prevention. Incentive scheme for enhanced pathway.	N/A	Midwife
Postnatal	Telephone	Contact 2 weeks postnatal to discuss postnatal relapse prevention and smokefree homes. Refer to Local SSS if requiring further support.	Clinic room/ travel expenses for home visits, IT, Appointment booking system, NRT	MHA/SSA

That national recommendation is 10 face-to face appointments during pregnancy commencing within a 40-minute appointment within 5 days of the booking appointment. The Norfolk and Waveney LMNS model enhances this by providing the opportunities for household-based interventions as well as a wider health promotion role and continues to provide support into the postnatal period. Furthermore, to support choice and personalisation, appointments will be available in a variety of modes including telephone/ virtual consultations, home visits and traditional clinic appointments.

Pharmacotherapy

Nicotine replacement therapy (NRT), in conjunction with behavioural support, may offer an effective alternative to help pregnant women quit smoking. This suggestion is based on the convincing research evidence for the effectiveness of NRT in the general population. Nicotine metabolism is higher during pregnancy, with metabolism rates found to be 23-26% higher in some studies, therefore, it is vital that adequate NRT provision is available in order to support a successful quit attempt. NRT is the General Sales List (GSL) item and can therefore be supplied by a midwife without a prescription under the Midwives Exemption, if it is within their scope of practice. The Smokefree Pregnancy Advisors will undertake Level 2 practitioner training and will be applied to prescribe and supply NRT directly to service users. The recommended NRT pathway is evidence-based and as follows:

**Appendix 5:
NRT for pregnant inpatients decision aid**



Apply 1 patch once daily in the morning. Advise pregnant women who are using nicotine patches to remove them before going to bed. (NICE 2019)

In line with the recommended model, pregnant women will be offered a 12-week course of NRT commencing with an initial 2-week supply, and monthly thereafter dependant on usage. The NRT will be stored appropriately at the community hubs to enable consistent accessibility. An alternative method of provision is being explored via Pharmoutcomes, which enables electronic prescriptions of NRT to be sent to a pharmacy of choice. JPUH straddles Norfolk and Suffolk, and both County Councils hold a license for Pharmoutcomes but only Norfolk actively uses it to prescribe NRT. Consultations are underway within Suffolk to explore prescribing NRT via Pharmoutcomes.

Vapes and e-cigarettes

Public Health England in Norfolk are commissioning a voucher scheme for vapes and e-cigarettes until March 2022. It is agreed that the Smokefree Pregnancy Advisors for the maternity tobacco dependence treatment service will be able to provide the vouchers directly to Norfolk residences. Suffolk PHE are preliminarily planning to pilot a vape scheme locally. Furthermore, a communications strategy to promote vaping as a safer alternative to smoking cigarettes is underway to target both pregnant women and staff.

Collaborative working

To be effective the project needs buy-in from local authority, NHS and broader health partners, to minimise organisational barriers and promote wide engagement. The Norfolk and Waveney Local Maternity System has a good history of working across organisational boundaries and integrating partners for collaboration. Norfolk Public Health hold a quarterly Smoking in Pregnancy Action Group, which review and optimise integrated care across the system. Smoking in pregnancy is a regular agenda item for the prevention workstream, which is led by the LMNS and attended by Public Health, Midwives, Obstetricians and Health Visitors across the system. The new Smokefree pregnancy pathway promotes continued collaboration with the Smoking Cessation Services, it has been agreed that:

Women who decline the Maternity tobacco dependence treatment service will be offered referral to the local Smoking Cessation Services

·Partners/ household members will be offered referral to the local Smoking Cessation services

The local Smoking Cessation Services will support the training and development of the Smokefree Pregnancy Advisors

Smoking cessation services will continue to provide the behavioural support programme and NRT prescription until the new service is launched at each trust.



Current Maternity Coverage

Trust/Geographical Area	Annual number of bookings 2020/21	Ave Smoking at Booking Rate 2020/21	Ave Smoking at Delivery Rate 2020/21	Ave coverage of maternal smokers for the area
Norfolk and Norwich University Hospital	4,900	11.2% (550)	10.6% (520)	35%
James Paget University Hospital	1,900	19.2% (365)	17.9% (340)	27%
Queen Elizabeth Hospital	1,925	27% (630)	17% (330)	41%
Total	8,725	1,545	1,190	
Trust/Geographical Area	Annual number of bookings 2020/21	Ave Smoking at Booking Rate 2020/21	Ave Smoking at Delivery Rate 2020/21	Ave coverage of maternal smokers for the area

The Smoking at booking rate varies across the localities, which correlates with the levels of deprivations and lifestyle norms within those communities. All three trusts exceed the nationally aimed for SATOD rate of <6%, demonstrating the need for enhanced smoking cessation support.

*Data quality issues have been identified for the SATOB and SATOD rates at QEH, which has been escalated for review. However, this report uses the data that is currently published.

COVID-19 Implications

The ONS trajectories for birth rate within the Norfolk and Waveney is static, however revised figures are awaited. Anecdotally birth numbers appear to have increased during the pandemic, especially for teenage pregnancies across England. When the revised trajectories are received, they will be factored into the modelling for provision. Carbon Monoxide monitoring was paused during the height of COVID-19, but was reintroduced in January 2021. Despite a system wide drive, Carbon monoxide monitoring compliance remains low, with an average of 30% of booked pregnancies. An action plan to increase Carbon monoxide includes enhanced training for staff and a new Carbon Monoxide screening tool.

Staffing

The Tobacco Dependence Treatment Service will consist of and 4 Smokefree Pregnancy Advisors, this included all contact with women and their partners to provide smoking cessation support. The rational for this decision is based on the job descriptions/ competencies of smoking cessation advisors who work in the external stop smoking services, appropriate allocation of resources and recommendation of current research. Leadership and supervision will be provided by the Eden Team (band 7 safeguarding midwives). We will be employing 2X WTE band 4 Smokefree Pregnancy Advisors to ensure appropriate workload allocations and annual leave/ sickness. Additional support will be available from Maternity Health Supporters (Band 4), who have a wider public health role and are funded by the LMNS.

IT systems

Maternity services in Norfolk and Waveney use various IT systems across the 3 acutes, which has been problematic for data quality assurance and reporting on Smoking in Pregnancy metrics. Poor documentation regarding smoking cessation support is consistently identified as an area of concern when investigating poor obstetric outcomes for maternal smokers and there is no formal feedback loop between the maternity services and the Local Smoking Cessation services. It is planned to introduce a new web-based Smoking in Pregnancy digital platform across the system, to streamline documentation and data collection. Consultations are underway and we anticipate a cost of 10K, which will be funded by the deprivation monies available to the LMNS for 2021/22.

Communications

Planning for a comprehensive communications strategy is underway to effectively promote smoking cessation in pregnancy and increase engagement with services. Localised smoking in pregnancy information is available on the JustOne Norfolk website and previous social media campaigns have had good engagement. Accessibility for pregnant women and families who are unable to access online resources is a priority. Work is underway to collaborate with the local libraries and Public Health England to provide iPads and a technology tutorial to those in need. Furthermore, online resources can be translated for our non-english speaking service users.

Governance

Smoking in pregnancy is a regular agenda item for the prevention workstream and is reviewed quarterly at the Local Maternity and Neonatal System Programme Board. This feeds directly into the QPC for the CCG/ICS. The operational elements will be discussed to that JPUH delivery group, which is multiagency group that also feeds directly into the CCG.

Costings

Trust	Staffing for service	Nicotine Replacement Therapy	Total	2021/22 (6 months) 40%	2022/23 75%	Y2023/24 100%
JPUH	£64,000	£55,908.65	£119,908.65	£59,954.32	£199,908.65	£199,908.65
QEH	£64,000	£84,245.91	£148,245.91		£148,245.91	£148,245.91
NNUH	£64,000	£96,499.86	£160,499.86			£160,499.86
Total				£59,954.32	£268,154.55	£428,654.41

The total cost is estimated to be:

2021/22- £59,954.32 to offer the new NHS smoke free pregnancy pathways to 40% of maternal smokers

2022/2023- £268, 154.55 to offer new NHS smoke free pregnancy pathways to 75% of maternal smokers

2023/24- £428,654.41 to offer new NHS smoke free pregnancy pathways to 100% of maternal smokers

With a notional allocation of £77,000, It is anticipated that there will be an underspend for 2021/22 due to a delayed launch of the programme, however, it is expected that the surplus monies will remain allocated to maternity.

The costing of Nicotine Replacement Therapy is based on the following assumptions:

- 90% referral rate
- 75% uptake of NRT
- 50% complete a 12-week course of NRT
- 20% continue to use NRT post 12-weeks until delivery

The assumptions are generous and reflects the ambitions of the service, however, it is anticipated that the actual cost of NRT will be significantly lower. NRT provision and usage will be monitored monthly at the pilot site to provide locally accurate figures for 2022/23. The staffing costs are for 2X WTE band 4 Smokefree Pregnancy Advisors for each of the acute trusts.

The notional allocations of funding does not allow the inclusion of more intensive and evidence-based interventions such as an incentive scheme. The proposed model will see behavioural counselling and NRT being provide by the NHS, which is the current model used by the Local Smoking Cessation services. It is predicted that the increase of face-to- face consultations will encourage higher quit rates, however, smoking cessation support for pregnant women in Norfolk and Waveney has previously been provided by maternity services but SATOD rates prevailed. To ensure success this time, it is recommended that we take a more innovative approach to deliver high- certainty evidence-based interventions in which local investment is needed. National wide, despite the success of the Babyclear Programme, women from deprived areas and young women are still the least likely to quit, even with evidence based interventions in line with NICE Guidance. This presents the case for targeting incentive schemes at these women.

Incentive Scheme

Research provides high-certainty evidence that financial incentives are an effective and cost-effective interventions to support pregnant women to quit smoking. Incentive schemes have been to topic of ethical debates but are now widely accepted as effective and are being implemented nation-wide. Incentives can increase quit rates by >50% in mixed populations

Incentive schemes are designed to support women to quit smoking during pregnancy involve the provision of financial incentives (usually shopping vouchers) to encourage ongoing engagement with quit support programmes throughout their pregnancy and postnatally. Vouchers can be awarded throughout the pregnancy at defined times such as:

- Completed 1 week smoke free
- 4 weeks smoke free
- Maintaining quit at 12 weeks
- Postnatal follow up

It is estimated financial return of £4 for every £1 invested.

Scheme	Outcomes
NHS Greater Glasgow and Clyde	<p>Women receiving¹⁴ the incentives in addition to behavioural and pharmacological support were:</p> <ul style="list-style-type: none">• More than twice as likely to have quit at 34-38 weeks gestation, 22.5% of the trial group compared to 8.6% of control participants.• At follow-up, 12 months after quit date, self-report data showed 15% of trial women had remained quit compared to 4% of control participants.• 145g increase in birthweight in women who quit with incentives who would not have quit without incentives• Results were¹⁵ unaffected by controlling for nicotine dependence illustrating effectiveness for a broad range of smokers.
Supporting a Smokefree Pregnancy Scheme (SaSFPS)	<p>Compared to local¹⁶ stop smoking service returns the 2012 scheme found:</p> <ul style="list-style-type: none">• 69% (n= 279) of women eligible had engaged with the programme and quit smoking at four weeks, this is a much higher proportion than the 41% from aggregated data from local stop smoking services across the North West (April - December 2012)• Of the women engaged with SaSFPS who had quit at four weeks, 71% (n= 200) were still quit at the time of delivery.• The evaluation of SaSFPS suggests women supported by a SoS are more likely to sustain a smokefree pregnancy.

In most incentive schemes, the value of incentives is phased and increased the longer a woman was able to maintain her quit attempt with the final potential payment being the largest. The value of incentives varies between schemes as does their frequency. The average total cost of incentives per person is £350 with a 40% uptake of eligible participants. Based on these figures, it would cost approximately £20,000 to launch at JPUH for 1 year. However, there is flexibility for the sum of each voucher.

Metrics

To evaluate clinical effectiveness, performance will be measured using that nationally recommend metrics which will be reviewed and reported the the LMNS Programme Board.

Metric *	Description
Tobacco dependence treatment services provided (coverage)	% of maternity services per system for which a tobacco dependence treatment service is provided
Identification of smoking in maternity services	% of all pregnant women that have a recorded smoking status at booking (CO test verified)
Percentage of pregnant women who are smokers	Total number of pregnant women booked identified as current smokers
Number of maternal smokers referred and seen by in-house tobacco dependence treatment service	% of maternal smokers referred to the in-house tobacco dependence treatment service and % of those actually seen
Tobacco dependence interventions provided for current smokers identified at booking	% of all current smokers provided with an intervention (incl. the recommended intervention from this model)
Type of pharmacotherapy prescribed	% of different pharmacotherapies out of all current smokers in receipt of tobacco dependence pharmacotherapy
Smoking cessation 28-day quit rates – all smokers provided with support and those taking up the recommended intervention	% of maternity smokers who receive support/undertake an intervention with the Tobacco Dependence Adviser and report a 28-day quit and those who undertake the recommended intervention
Change in smoking status – maternal booking against delivery and 36 weeks	Change in smoking status as a % of total number of women identified as smoking at antenatal booking compared to at delivery and at 36 week antenatal appointment

* To note, these are the headline metrics, but more detail specific to each care setting as well as the accompanying guidance is available on the FutureNHS page.

	James Paget University Hospital			Queen Elizabeth Hospital			Norfolk and Norwich University Hospital		
	2021/22	2022/23	2023/24	2021/22	2022/23	2023/24	2021/22	2022/23	2023/24
Ave Smoking at Delivery Rate									
Ave Quit Rate for pregnant people									
Ave quit rate for entire household									
% uptake of NRT									
% uptake of vaping									
% uptake of only behavior programme									
% who opted out of pathway									

All information collected will enable the LMNS and ICS partners to review the effectiveness of the pathway and assist in the ICS business case to secure increased and/or long term service funding. A bespoke data collection tool will be designed to collect and evaluate the indicators and outcomes. The evaluation will be completed by the LMNS and Public Health colleagues to enable objectivity to analysis. This will be completely monthly during 2021/22 and quarterly thereafter.

Branding

Previously, the Norfolk and Waveney LMNS launched the 'Every Breath Counts' Initiative to increase the number of Smokefree Pregnancies. To continue the valuable work of the initiative, the branding will be as follows:

