

Successes in reducing smoking in pregnancy at SFHFT: Supporting NHS Saving Babies' Lives

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Background

Smoking in pregnancy is a major public health concern and the current national ambition rate has been set to reduce the rate smoking at time of delivery (SATOD) to ≤6% by 2020.

Smoking is a modifiable risk factor in pregnancy. It is known that smoking or smoke exposure during pregnancy can cause serious health problems and has further implications throughout childhood. Smoking is strongly associated with several adverse socio-economic and educational indicators¹.

NHS England recently set a national ambition to halve the rates of stillbirths by 2030, with a 20% reduction by 2020. 'Saving Babies' Lives' will help maternity services meet this aspiration. Reducing the incidence of maternal smoking during pregnancy forms one of the evidence based four elements of the NHS England 'Saving Babies' Lives' care bundle².

The total annual cost to the NHS of smoking during pregnancy is estimated to range between £8.1 and £64 million for treating the resulting problems for mothers and between £12 and £23.5 million for treating infants (aged 0–12 months)³.

Smoking cessation pathway development

- 2011 Community midwives had Brief Intervention education
- 2013 University of Nottingham 'Opt out' study: introduction of a CO reading at 12 weeks of pregnancy⁴
- 2014 Risk Perception Intervention commenced (Motivational Interviewing based intervention)⁵
- 2017 CO readings at first contact commenced^{6,7}

Care pathway for women who smoke 2017

1. CO reading at first contact
2. Risk Perception with a repeat CO reading for women continuing to smoke
3. Discussion about smoking raised at every subsequent antenatal contact
4. Serial growth scans for women who continue to smoke at 28, 32, 36, 39 and 41 weeks to detect fetal growth restriction and small for gestational age babies to reduce the term still birth rate: NHS England Saving Babies' Lives (2016)⁸
5. Smoking status recorded at 25 weeks and 34 weeks
6. CO repeated at 36 weeks for all pregnant women
7. SATOD question on admission in labour⁹
8. NRT provided for in-patients.
9. Electronic referral to (local SSS) at any time.

Multidisciplinary approach

1. Close working relationship with *SmokefreeLife*, Public Health Nottinghamshire and the CCG.
2. Embedding smoking cessation in antenatal care provision ensures it is everyone's responsibility
3. Collaborative working with the University of Nottingham.

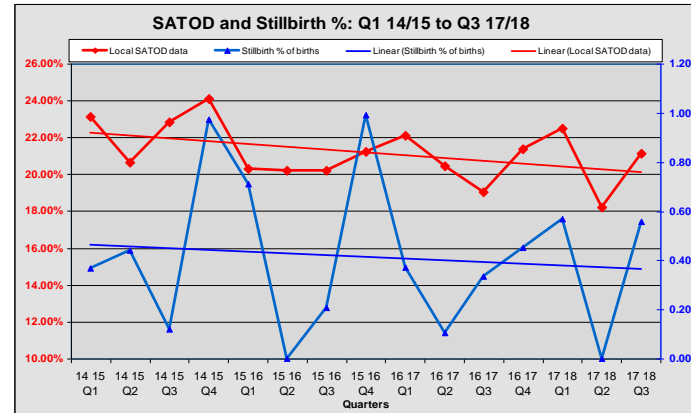


Chart 1: SFHFT monthly reported SATOD data from the electronic maternity pathway 'ORION'.

A CORREL analysis of chart 1 data indicated a correlation coefficient of 0.47 for the full date range, suggesting a moderate relationship between SATOD and % stillbirth for the full period. There was a score of 0.75 for Q1 16/17 onwards, indicating the two variables are strongly related in the latter quarters. The small numbers associated with still births contributed to the volatility in the data.

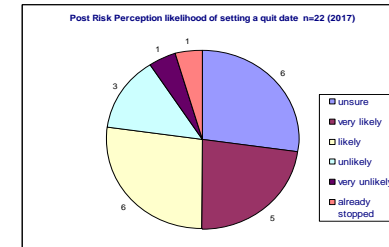


Chart 2: Risk Perception evaluation Public Health, Nottinghamshire 2017

Reflection and Discussion

Seeing the baby for the first time and receiving CO readings coupled with learning that high CO levels are harmful to the fetus, could have been an additional motivator for the women¹⁰.

At SFHFT 'opt-out' referrals were implemented by a small group of healthcare staff who were trained to national standards and received support afterwards; staff training and ongoing support may be necessary to ensure that new referral processes are effectively introduced.

The 'opt out' pathway was implemented in addition to existing 'opt in' referrals, repeated referrals may have enhanced smokers' motivation leading to improved cessation outcomes (Campbell et al 2017).

SFHFT redesigned the smoking in pregnancy pathway, embedding intensive specialist smoking cessation advice into routine antenatal care.

Motivational Interviewing is a powerful technique and must be conducted by appropriately qualified personnel to achieve a consistent outcome that empowers women to quit smoking.

Results

Impact of 'opt-out' referrals with CO identification

- Increased the numbers of referrals for smoking cessation support received by *SmokefreeLife*.
- Twice the number of women engaged with SSS support after implementation of the programme.
- Doubling of the proportion of women who reported abstinence from smoking at one month.
- 6% statistically significant increase in successful cessation among women who used SSS in the intervention period.

Impact of Risk Perception Intervention

- Further 3% increase in successful smoking cessation.
- Increase in birth weight centile amongst women who reduced their cigarette consumption, but who didn't quit.
- Women have reported that the direct approach of Risk Perception is what they required. The women didn't previously know why smoking is harmful to the pregnancy and the baby.
- Chart 2 opposite shows that 50% of women reported they were likely to quit smoking following the Risk Perception. It is acknowledged that the sample is small n=22.

References

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