# 6. CHILDREN, YOUNG PEOPLE AND THEIR FAMILIES

## 6.4. Smoking in pregnancy

This section examines the issues around smoking in pregnancy, including the impact on health, and information on what is known about the levels of smoking in pregnancy in Buckinghamshire.

#### 6.4.1. The importance of smoking in pregnancy

Smoking in pregnancy has well known detrimental effects for the growth and development of the baby and the health of the mother, and can also cause serious pregnancy-related health problems. On average, smokers have more complications during pregnancy and labour, including bleeding during pregnancy, placental abruption and premature rupture of membranes. Babies of mothers who smoked during pregnancy:

- are more likely to be born prematurely
- are twice as likely to have a low birth weight
- have around 40% higher rate of infant mortality, including being up to three times as likely to die from sudden unexpected death in infancy (SUDI)<sup>1,2</sup>

Figure 1 shows data from Buckinghamshire Healthcare Trust (BHT), where around three-quarters of Buckinghamshire women deliver their babies, which was analysed in a 2014 maternity needs assessment. Although the number of low birthweight babies is highest among those who never smoked (as they are the largest group of mothers), low birthweight is more than twice as high among mothers recorded as current smokers compared to any other group<sup>3</sup>. Premature delivery is also more common among women who were recorded as current smokers at delivery (table 1).

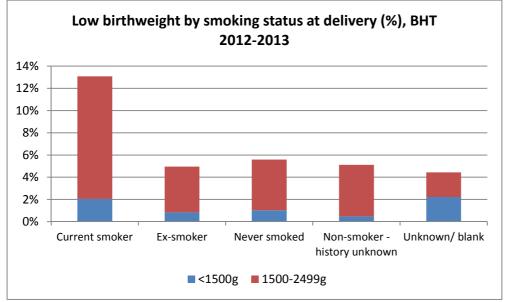


Figure 1 Low birthweight (%) by smoking status at delivery, BHT

Source: BHT 2012/13data reported in PHAST maternity needs assessment

	Delivery <32 weeks (% of total with smoking status recorded)	Delivery 32-36 weeks (% of total with smoking status recorded)
Current smoker	1.9%	8.0%
Ex-smoker	0.8%	5.4%
Never smoked	1.0%	5.2%
Non-smoker - history unknown	0.4%	3.9%
Unknown or blank	2.4%	9.5%

#### Table 1 Premature deliveries (%) by smoking status at delivery, BHT 2012-2013

Source: BHT 2012/13data reported in PHAST maternity needs assessment

Children born to mothers who smoke are much more likely to smoke themselves. Encouraging pregnant women to stop smoking during pregnancy may help them kick the habit for good, and thus provide long-term health benefits for the mother and reduce the infant's exposure to secondhand smoke.

### 6.4.2 Information on smoking in pregnancy in Buckinghamshire

Data are routinely collected on smoking at time of delivery (SATOD). In 2014/15, 8.1% of mothers in Buckinghamshire were smokers at the time they delivered their baby, significantly lower than the England average of 11.4% and the South East average of 10.3%<sup>4</sup>. However, these figures may underestimate the true prevalence

as self-reported smoking in pregnancy is often under-reported and can be poorly recorded.

Maternity services record smoking status at booking (when a pregnant woman has her first appointment with a midwife, usually before 12 weeks of pregnancy), as well as at delivery. However, recording is not complete; the 2014 needs assessment analysis of BHT data found that there was no record for 28% of women at booking and for 7% at delivery<sup>3</sup>. In this analysis, 9.5% of women for whom there was record of smoking status were recorded as current smokers at booking, and 7.7% at delivery. Because of the incompleteness of recording it is not possible to say to what extent actual rates of smoking changed between booking and delivery, although it appeared that few women took up referral to stop smoking services. An audit of maternal smoking in 2012/13 found that 7.5% of women were smoking in pregnancy, but less than 8% of them took up a referral to Stop Smoking Services, and only one-third of those were recorded as quitting smoking<sup>5</sup>.

As with smoking in the population as a whole, the proportion of women smoking at the time of delivery is showing a steady decline nationally, from 15% in 2006/07 to 11.4% in 2014/15. However, the rate in Buckinghamshire has remained fairly stable since 2010 at around 7.5% to 8.0% (figure 2).

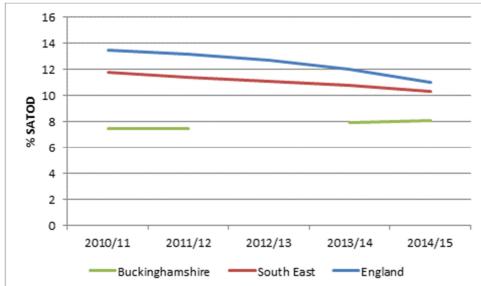


Figure 2 Trend in proportion of mothers who were smokers at the time of delivery 2010/11 - 2014/15

Note: Buckinghamshire has a missing data point for 2012/13 Source: PHE (PHOF 2014-15)

#### 6.4.3. Smoking in pregnancy in different population groups

#### 6.4.3.1 Socioeconomic differences

Pregnant women from unskilled occupational groups are five times more likely to smoke than professionals. Data from the 2010 Infant Feeding Survey reported that the highest levels of smoking were found among mothers in routine and manual occupations (40% smoked before or during pregnancy) and this rose to 57% among those aged less than 20 years. Mothers aged under 20 years and mothers who had never worked were also less likely to give up smoking at some point before or during pregnancy<sup>6</sup>.

#### 6.4.3.2 Age

Pregnant teenagers in England are six times more likely to smoke than older mothers. The 2014 Buckinghamshire Maternity Needs Assessment found that rates of smoking at delivery fell with age, from over 25% of under 20 year olds, 16% of 20-24 year olds, and 8% of 25-29 year olds, to between 2-4% in age groups over 30<sup>4</sup>. Women aged less than 30 years account for two-thirds of all smokers, but only about 40% of all deliveries<sup>3</sup>.

### 6.4.3.3 Ethnicity

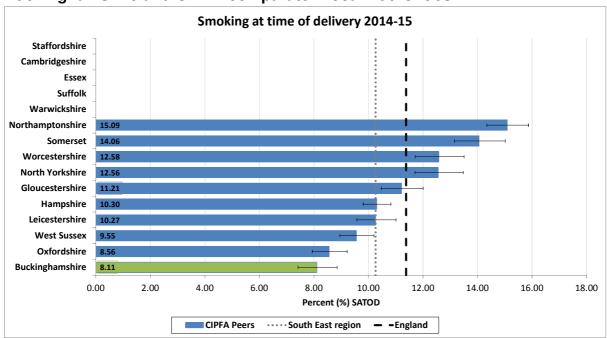
The 2014 needs assessment (using 2012/13 data) found that the highest rates of smoking at delivery were among White British (9.0%), Mixed (8.5%) and Other White ethnic groups (6.3%). White British accounted for over 80% of the smokers at delivery but only 63% of deliveries. Very few women from an Asian background were recorded as smokers (0.8% both at booking and delivery)<sup>3</sup>.

### 6.4.4 Smoking in pregnancy in different geographical areas

Buckinghamshire has the lowest prevalence of smoking at the time of delivery compared to 9 other CIPFA comparator local authorities, and is significantly below both the South East and England averages (figure 3). However there are other areas in the South East with lower levels with Wokingham the lowest at 6.3%, and the lowest recorded in England is 2.1%.

Table 2 shows the proportions of women smoking at delivery by CCG in Buckinghamshire, compared with the Regional and national rates. Fewer women in Chiltern CCG (7.8%) smoked than in Aylesbury Vale CCG (8.5%), but the difference was not statistically significant. However, both CCGs were significantly lower than England and the Southern Region<sup>7</sup>.

#### Figure 3 Proportion of women who were smoking at time of delivery 2014-15, Buckinghamshire and CIPFA comparator Local Authorities



Note: No data available for Staffordshire, Cambridgeshire, Essex, Suffolk or Warwickshire Source: PHE (PHOF 2014/15)

# Table 2 Proportion of women smoking at time of delivery in BuckinghamshireCCGs, Southern Region and England, 2014/15

	Smoker % (95% Cls)	Non-smoker %	Not known %	
Chiltern CCG	7.8 (7.0-8.8)	89.7	2.5	
Aylesbury Vale CCG	8.5 (7.4-9.7)	89.2	2.3	
Southern Region	10.9	87.5	1.6	
England	11.4	85.6	3.0	

Source: HSCIC Statistics on women smoking at time of delivery

### 6.4.5. Demand

It appears that although there are relatively low levels of women in Buckinghamshire smoking during pregnancy, there are also few who take up a referral into smoking cessation services. Services will need to develop ways of encouraging pregnant smokers (who are more likely to be young and socioeconomically disadvantaged) to take up a referral. Pressures on midwifery services also mean that midwives may have limited time to discuss this with pregnant women.

#### 6.4.6 Conclusions

Smoking during pregnancy has serious detrimental effects on the health of the mother and baby, and can also increase the risk of problems during pregnancy and delivery. In 2014-15, 8.1% of mothers in Buckinghamshire were smokers at the time they delivered their baby, significantly lower than the England and South East averages, and also lower than similar Local Authorities. However, these figures may underestimate the true prevalence as self-reported smoking in pregnancy is often under-reported and can be poorly recorded.

While there has been a decline in the rates of smoking in pregnancy nationally, the prevalence in Buckinghamshire has not improved over the last few years. Smoking in pregnancy is more common among women who are unemployed or in unskilled occupational groups, among teenagers and women in their 20s, and among women from White or Mixed ethnic groups in Buckinghamshire.

Given the potentially serious consequences of smoking for both mothers and babies, it is important that appropriate services and support can be provided to help women who smoke to quit before or during pregnancy.

Lesley Manning Advanced Public Health Practitioner June 2016 References

<sup>7</sup> HSCIC (2015) Statistics on women smoking at time of delivery, 2014/15 http://www.hscic.gov.uk/article/2021/Website-

<sup>&</sup>lt;sup>1</sup> NICE (2010). Smoking in pregnancy and after child birth. NICE Guideline (PH26) June 2010

<sup>&</sup>lt;sup>2</sup> Department of Health (2007). *Review of the Health Inequalities: Infant Mortality PSA Target.* London

<sup>&</sup>lt;sup>3</sup> PHAST (2014) P598 Maternity Needs Assessment Buckinghamshire

<sup>&</sup>lt;sup>4</sup> PHE PHOF data 2014-15 <u>http://www.phoutcomes.info/public-health-outcomes-framework</u> accessed 4/02/2016

<sup>&</sup>lt;sup>5</sup> An audit of smoking cessation services for pregnant women in Buckinghamshire, 2011/12

<sup>&</sup>lt;sup>6</sup> HSCIC (2012) The Infant Feeding Survey – UK 2010. The Health and Social Care Information Centre, 2012. <u>www.hscic.gov.uk/catalogue/PUB08694</u>

Search?productid=18077&q=SATOD&sort=Relevance&size=10&page=1&area=both#top (accessed 11/2/2016)