

## Smoking in pregnancy and following childbirth East Sussex, 2010/11

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### Aim

This report aims to bring together information on smoking behaviours of mothers in East Sussex from time of conception through to six weeks following child birth.

### Data source

Maternal smoking data is available from sources:

- 1) maternity units: smoking at conception, booking and delivery
- 2) child health system: smoking at 6 weeks postpartum

Table 1: Maternity Unit smoking data available

	Place of birth % East Sussex resident births (2010/11)	Smoking status at conception/before pregnancy	Smoking status at booking	Smoking status at delivery
East Sussex Hospitals Trust (ESHT)	73%	Available for all ESHT deliveries (incl homebirths), 2006 to March 2011 (June- Dec only for 2010)	Available for all ESHT deliveries (incl homebirths), 2006 to March 2011	Available for all ESHT deliveries (incl homebirths), 2006 to March 2011
Brighton and Sussex University Hospitals (BSUH)	18%	Not available	Available for East Sussex PCTs for 2009/10 & 2010/11	Available for East Sussex PCTs for 2009/10 & 2010/11
Maidstone and Tunbridge Wells (MTW)	4%	Available for East Sussex PCTs for 2009/10 & 2010/11	Available for East Sussex PCTs for 2009/10 & 2010/11	Available for East Sussex PCTs for 2009/10 & 2010/11
Other	5% (includes all homebirths)	Not available	Not available	Not available

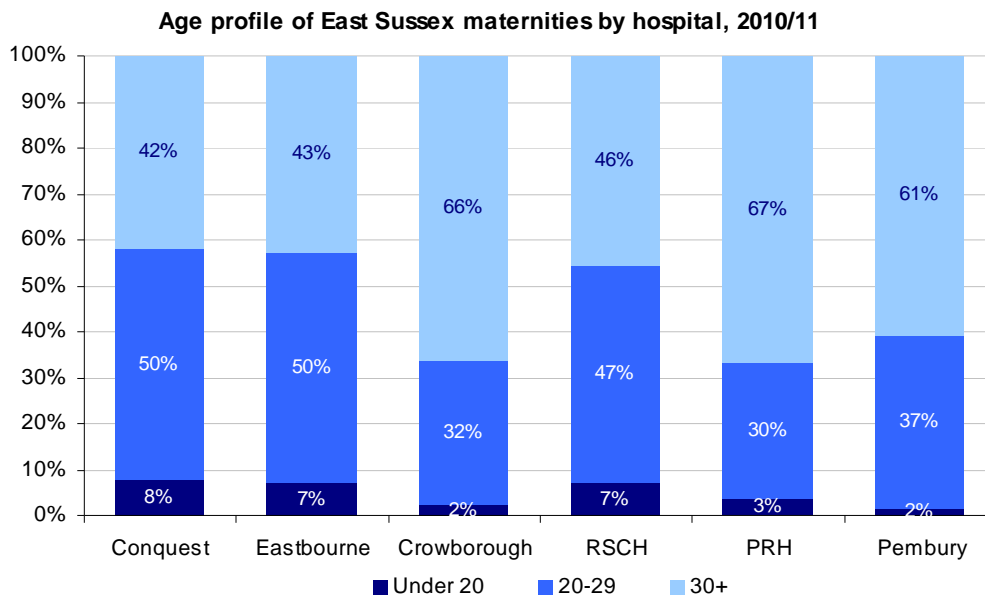
Smoking status at six weeks postpartum is available for mothers of babies under the responsibility of East Sussex PCTs at the six week health review. Whether the father and other household members smoke is also captured.

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Differences in smoking rates between maternity units may be due to differences in the populations they serve. As smoking rates differ by age and deprivation, the age profile and deprivation profile for East Sussex births by hospital of delivery for 2010/11 is presented in Figures 1 and 2.

Crowborough has an older age profile of maternities with the Conquest having the youngest (Figure 1).

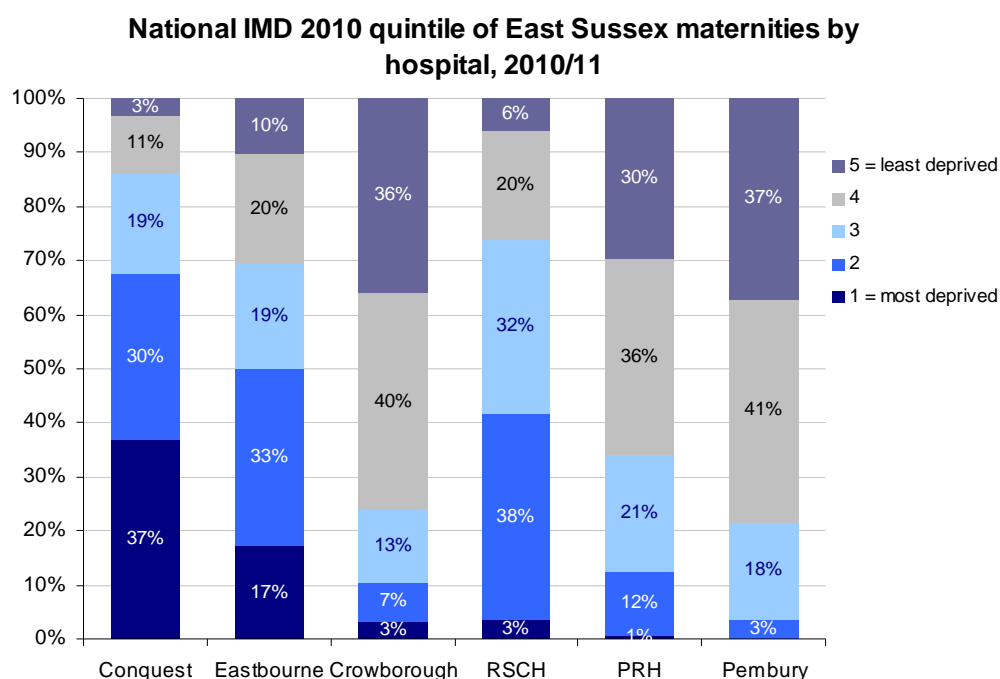
Figure 1: Age profile of East Sussex maternities, 2010/11



RSCH = Royal Sussex County Hospital (Brighton), PRH = Princess Royal (Haywards Heath)

There are large differences in the deprivation profile by hospital of delivery for East Sussex mothers. Over a third (37%) of maternities at the Conquest are mothers from areas in the most deprived national IMD quintile with 17% of mothers at Eastbourne from the most deprived national quintile. Pembury, Crowborough and then Princess Royal have the highest proportion of East Sussex maternities from the least deprived quintile nationally. (Figure 2)

Figure 2: Deprivation profile of East Sussex maternities, 2010/11



### Smoking prevalence in fertile female population

National smoking prevalence is estimated using data from the General Lifestyle Survey (Source: ONS). It is acknowledged that in the survey smoking prevalence may be under-reported, and would most likely be under-reported among young people.

Comparing national smoking prevalence estimates to the prevalence of smoking for women at time of conception (whose pregnancy-related care was at ESHT), shows that younger women falling pregnant have a much higher smoking rate than in the general female population for their age group, with the difference decreasing with age. In 2008 the smoking prevalence for females aged 16-19 years was 27%, compared to 62% of women of that age who had a baby at ESHT smoking at time of conception (Figure 3). In the same year, for those aged 20-24 years the national

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prevalence was 33% and 49% were smoking at conception at ESHT (Figure 4), for ages 25-34 years the national prevalence was 22% and 20% were smoking at time of conception at ESHT. (Figure 5)

Figure 3: Smoking in females aged 16-19 years and at time of conception

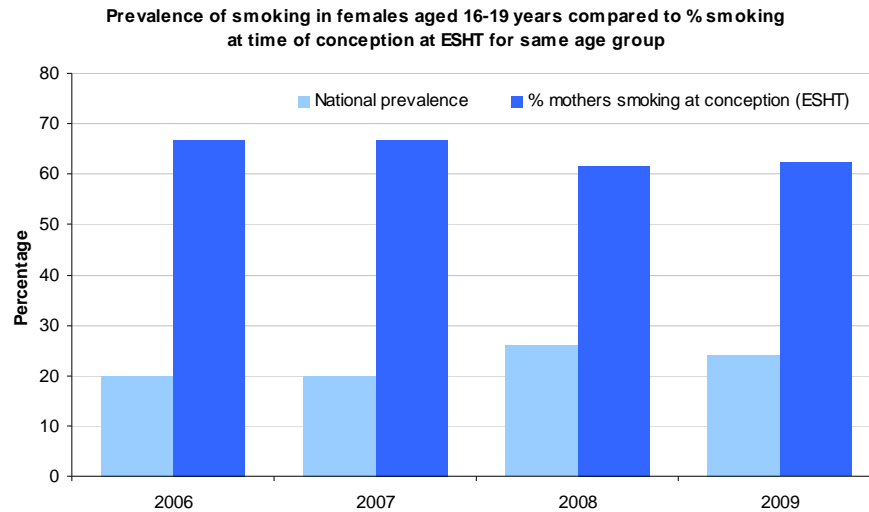
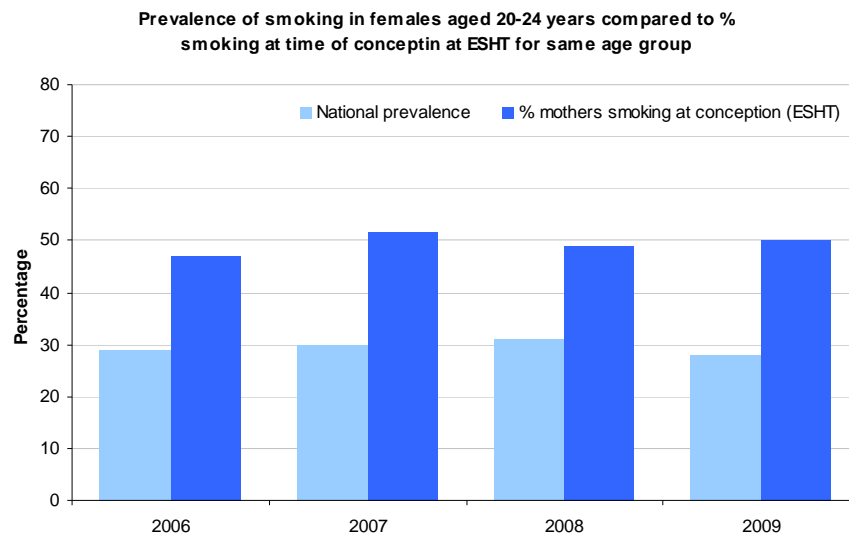
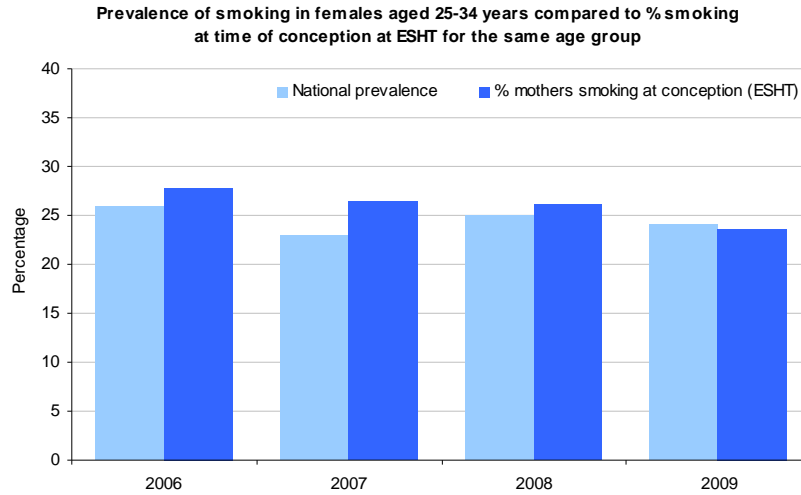


Figure 4: Smoking in females aged 20-24 years and at time of conception



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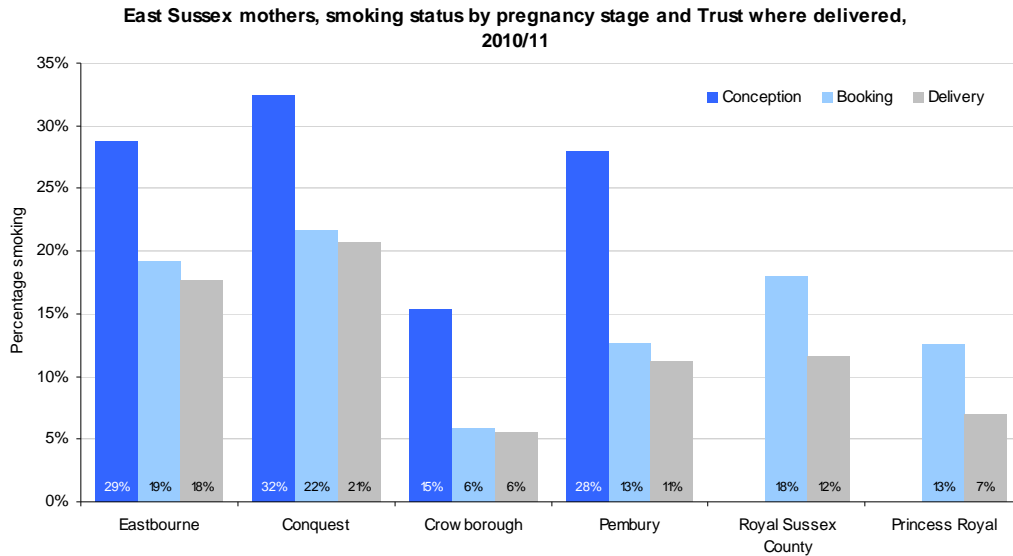
Figure 5: Smoking in females aged 25-34 years and at time of conception



### Smoking status and pregnancy stage

The majority of East Sussex mothers who were smoking when they became pregnant and subsequently stopped, quit between conception and booking. Only a small number who were smoking at booking go on to have quit by the time of delivery. (Figure 6)

Figure 6: Smoking status by pregnancy stage and hospital



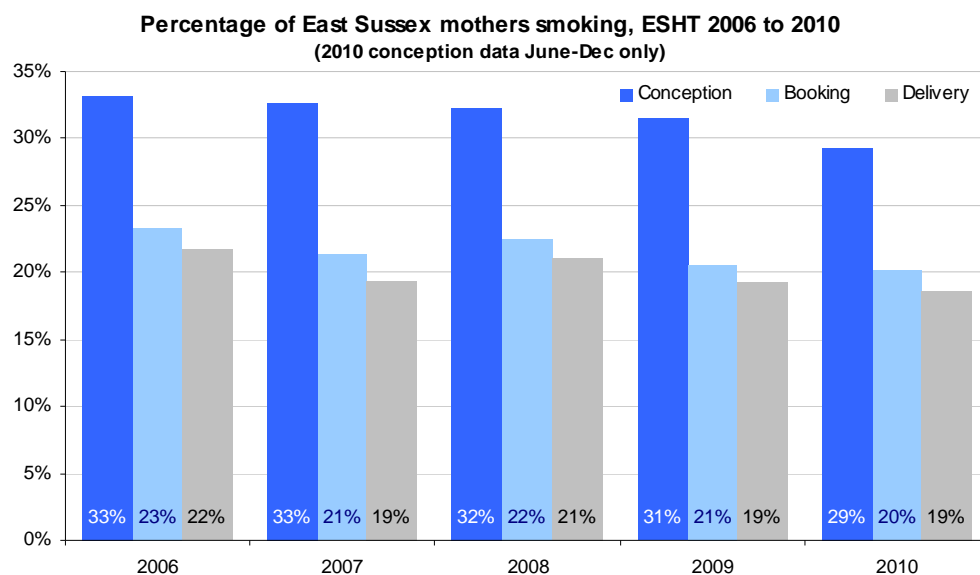
Note - conception data not available for BSUH

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Smoking rates at all stages of pregnancy are highest at the Conquest followed by Eastbourne. BSUH data suggests a higher drop in the percentage of mothers smoking between time of booking and at time of delivery, compared to East Sussex mothers delivering at ESHT and MTW.

Data from ESHT for 2006 to 2010 shows that the percentage of women smoking at different stages of the pregnancy has remained fairly stable over the four year period, with smoking at conception beginning to decrease. (Figure 7)

Figure 7: Smoking status by pregnancy stage, ESHT 2006-2010

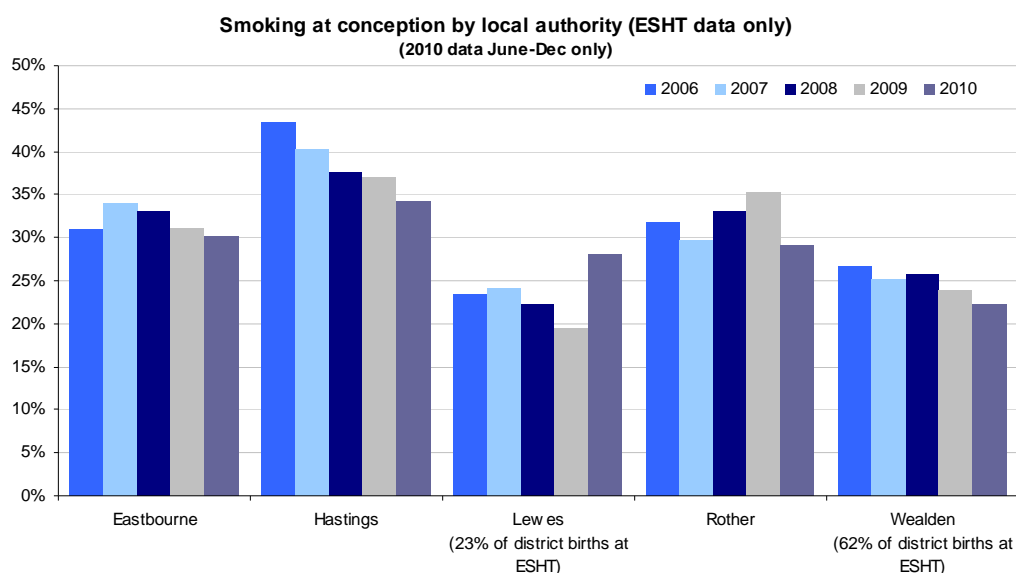


### Smoking at conception

Hastings borough has the highest percentage of women smoking at conception but the rate is showing a downward trend. Lewes and Wealden have the lowest rates (for births at ESHT only). (Figure 8)

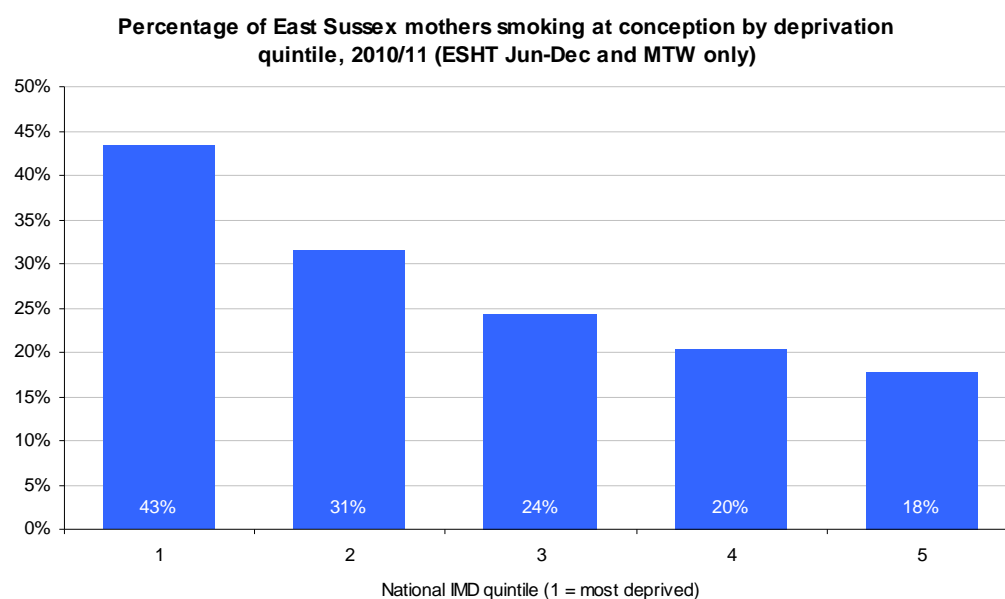
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Figure 8: Smoking at conception, districts/borough 2006-2010



The percentage of mothers who were smoking when they became pregnant increases with increasing levels of deprivation (Figure 9).

Figure 9: Smoking at conception, IMD national quintile (IMD 2010), 2010/11



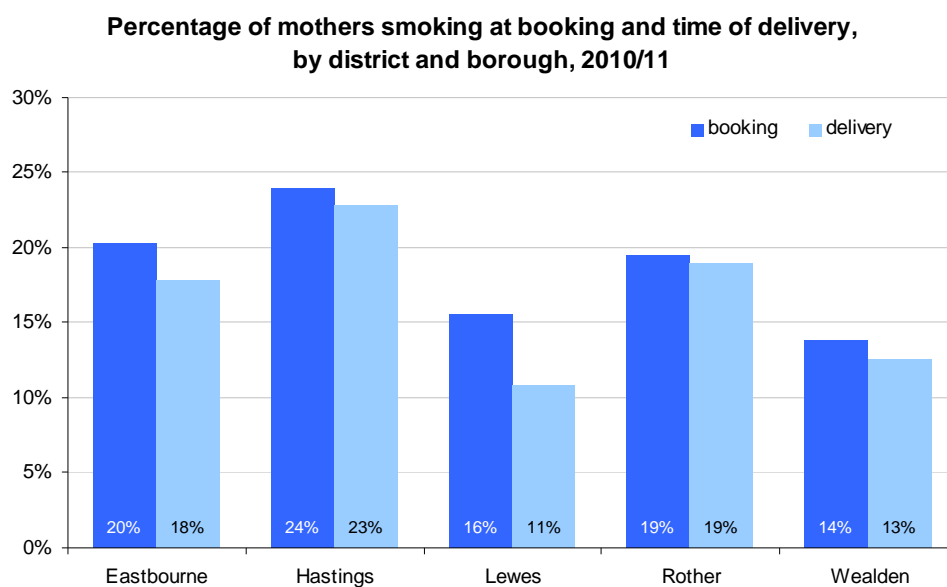


### Smoking at booking and delivery

There is variation across the county of the percentage of mothers who were smoking at booking and at time of delivery, with the highest rates in Hastings (majority of these births were at the Conquest). Lewes has the largest drop off of smoking between booking and delivery. (Figure 10)

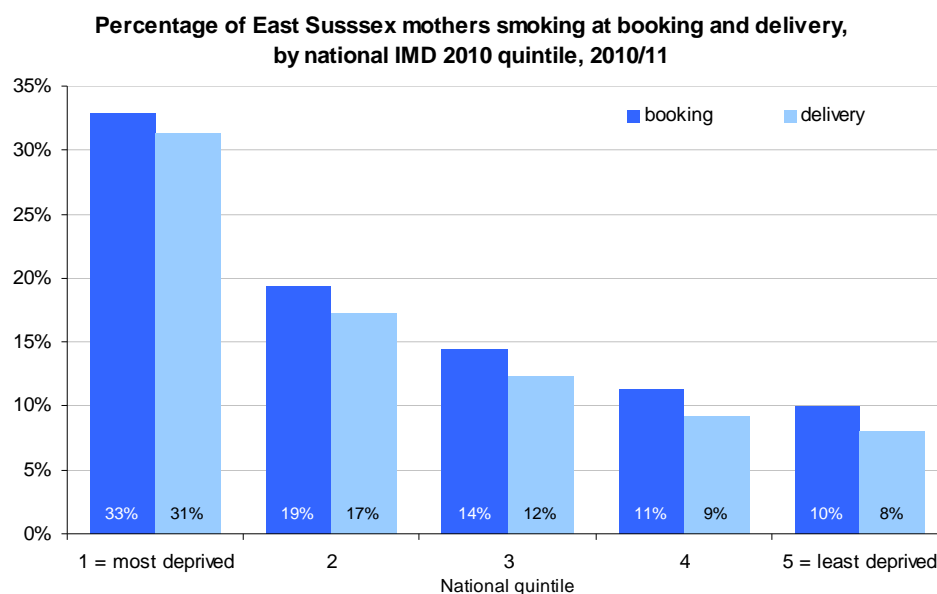
Almost a third of mothers from the most deprived areas are smoking during pregnancy, with around one in ten from the least deprived area. (Figure 11)

Figure 10: Smoking at booking and delivery, district/borough, 2010/11



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Figure 11: Smoking at booking and delivery, IMD national quintile, 2010/11



### Smoking data collected at six week health visitor review

Data on smoking status during pregnancy and at six weeks for the mother, father and other household members is collected by the health visitor at the six week review. The following data is captured:

Did mother stop smoking during pregnancy? Yes/No/n/a (mother was not a smoker at start of pregnancy)

Current smoking data:  
Mother Yes/No  
Father Yes/No  
Any other Yes/No

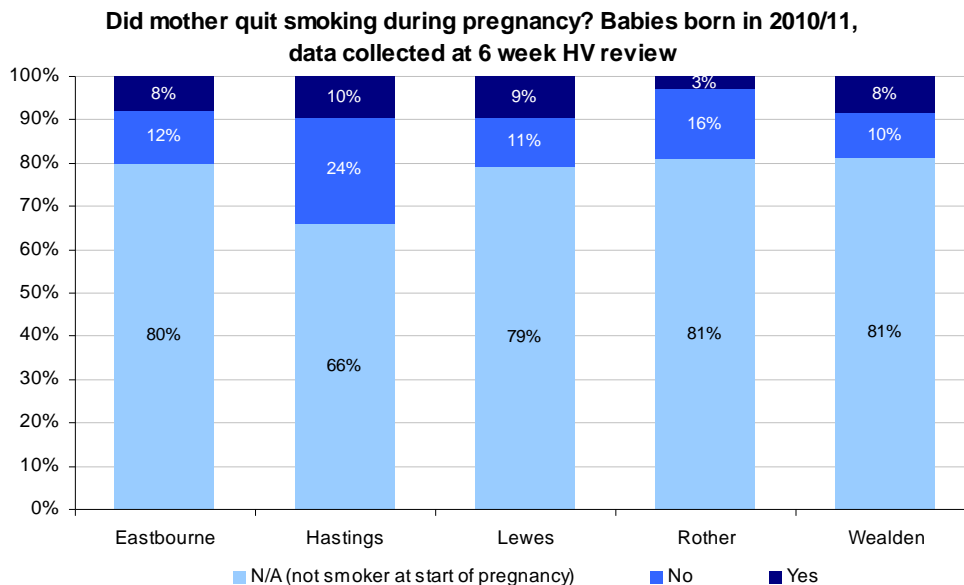
Using the data on smoking status during pregnancy from the health visitor six week review shows different smoking rates by district/borough compared to the data from maternity units for 2010/11. Data recorded at the

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maternity units relate specifically to at time of booking and delivery. The data collected at the six week review refers to 'during pregnancy', so could be at any stage, and also it is unclear if women quit during the pregnancy but relapsed before delivery how they would classify themselves. Note - the six week review data is only available for mothers/children registered with an East Sussex GP.

Figure 12 shows that in Hastings 34% of mothers were smoking at the start of pregnancy (24% + 10%) with a quarter of mothers continuing smoke during the pregnancy. The data collected by the HV suggests lower smoking rates in Eastbourne compared to maternity unit data (12% continuing to smoke during pregnancy whereas maternity data suggests 18% smoking at time of delivery).

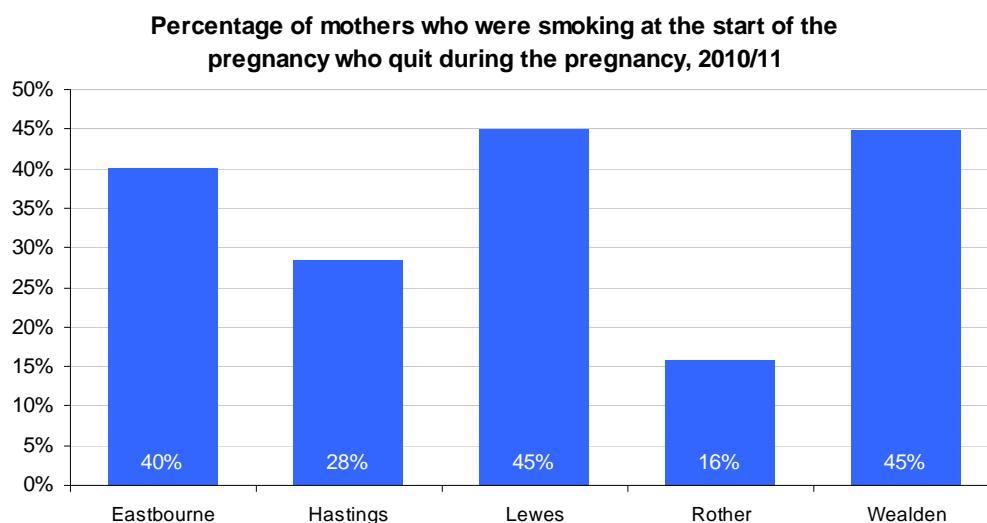
Figure 12: Did mother quit smoking during pregnancy? district/borough, 2010/11



Of those women who were smokers at the start of pregnancy, the highest quit rates are in Eastbourne, Lewes and Wealden. (Figure 13)

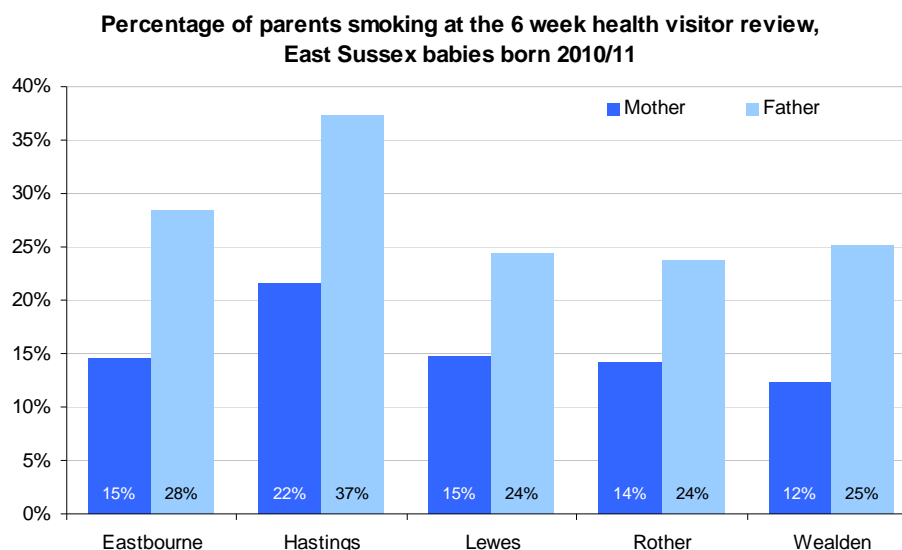
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Figure 13: Smokers who quit during pregnancy, district/borough, 2010/11



At the six week health visitor review the percentage of mothers smoking is highest in Hastings (22%) and lowest in Rother and Wealden (14% and 12% respectively). The proportion of fathers smoking ranges from around one in four in Wealden (25%) to over a third in Hastings (37%). (Figure 14)

Figure 14: Parental smoking at six week review, district/borough, 2010/11



There is a clear association with deprivation and parental smoking at the six week health visitor review. Around two-fifths (43%) of fathers living in the

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most deprived quintile were smoking compared with less than one in five in the two least deprived quintiles (18-19%). For mothers, 26% from the most deprived quintile were smoking compared to 9% in the least deprived quintile. (Figure 15)

Figure 15: Parental smoking by deprivation quintile, 2010/11

