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Executive Summary

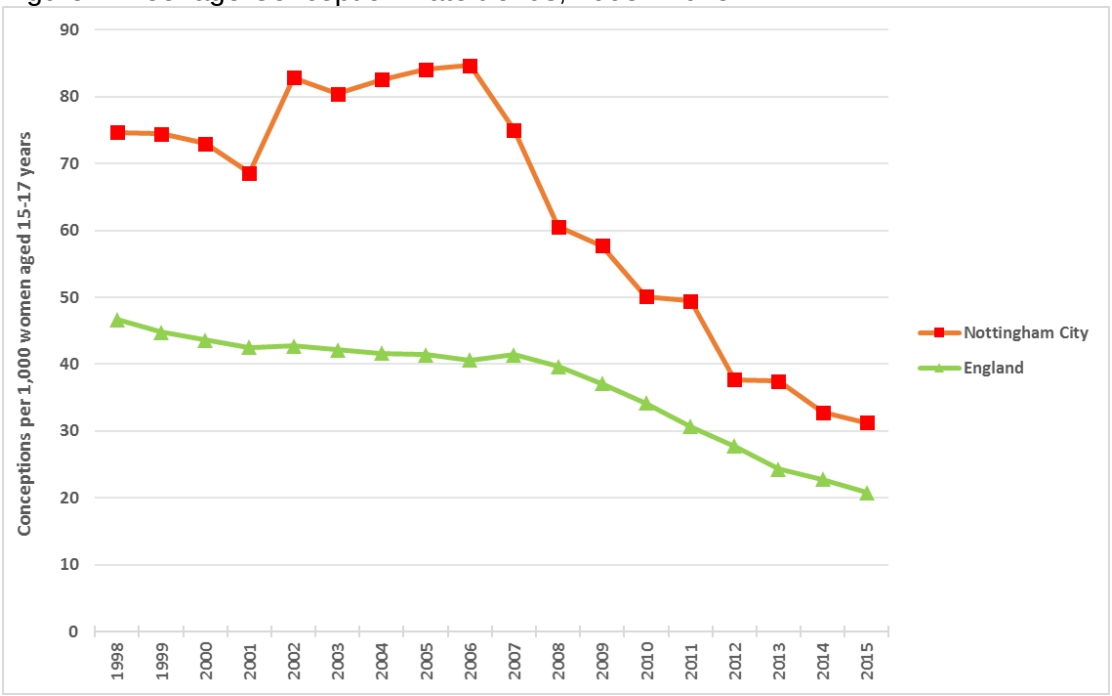
Introduction

The term ‘teenage pregnancy’ includes under-18 conceptions that lead to a legal termination of pregnancy or birth. Teenage pregnancy is an issue of inequality as early parenthood is associated with poor health, wellbeing and wider life chances such as education and economic outcomes as well as increased levels of social exclusion, for both teenage parents and their children (Hadley, Chandra-Mouli and Ingham et al. 2016).

Action to reduce unplanned teenage pregnancy and support teenage parents has been a local and national priority since 1998. During this time, teenage pregnancy rates have continued to fall, both locally and nationally.

In Nottingham in 2015, the most recent available annual conception data, there was a decrease of 8 conceptions from 160 in 2014 to 152 in 2015 in the under-18 (15-17) age group. This represents a rate reduction from 32.7 conceptions per 1000 girls aged 15-17 in 2014 to 31.2 in 2015. The rate reduction is illustrated in Figure 1.

Figure 1: Teenage Conception Rate trends, 1998 - 2015



Source: Office for National Statistics (2017) Dataset of conception statistics, England and Wales 2015

However, Nottingham's under-18 conception rate is still higher than the England average rate of 20.8 conceptions per 1000 girls aged 15-17 in 2015 and the Core Cities average rate of 26.5 per 1000. The England average remains higher than in other Western European countries. Nationally 80% of under-18 conceptions are to 16 and 17 year olds and around 20% are to under-16s.

The wards with the highest three-year aggregated rates of teenage conceptions, over 2012-14[1] were Arboretum and Aspley whilst Wollaton West had the lowest published rates. Two wards have suppressed data due to low numbers (Dunkirk & Lenton and Wollaton East & Lenton Abbey)[2].
Action is required to sustain the significant reductions in under-18 conceptions and continue the downward trend. National and international evidence suggests that reducing teenage conceptions is best achieved by:

- Providing comprehensive sex and relationship education in and out of school (Kirby, 2007).
- Providing easy access to, and use of, young people friendly contraception and sexual health services (Kantor et al, 2008).
- Targeting support to those most at risk of teenage pregnancy. For example girls who make less than the expected amount of progress between key stages 2 and 3, girls who are persistently absent in year 9 as well as those entitled to free school meals.

Unmet need and gaps

- Not all young people have access to comprehensive SRE. Whilst the proportion of schools signing-up to the SRE Charter is encouraging

[1] At the time of writing this is the latest available data
[2] Where there are fewer than five conceptions in a particular area, the data is suppressed by ONS to ensure that individuals cannot be identified from the data.

some schools appear reluctant to sign-up; some of these schools are in areas of high teenage conceptions.

- Pupils at Nottingham schools don't have equitable access to sexual health services such as Emergency Hormonal Contraception (EHC) and pregnancy testing on the school site. This is due in part to whether schools find this provision acceptable but also to whether there are sufficient public health nurses to deliver the provision.

- Whilst the majority of the school-age pregnancies are from a White British background as Nottingham becomes an increasingly diverse city there are more conceptions in pupils from BME communities. Current services may need to adapt to meet their needs.

- There is insufficient data to assess the needs of migrants from Europe who are increasingly featuring in Nottingham's under-16 conception statistics. This is particularly true of Central and Eastern European Roma families who do not identify themselves as a single, homogenous community.

- With the 14-month time delay in reporting teenage conceptions, it is important to collect more timely local data to accurately inform commissioning decisions. Current systems do not enable the collection of real time data on the number of live births and terminations by ethnicity, age etc. This information would be useful when commissioning services as it would help ensure that services are responsive to need.

- Nottingham's high rate of teenage pregnancy is commensurate with Nottingham's over-representation of structural, demographic and psychosocial risk factors within the population. Long-term strategies are needed to increase the proportion of citizens in employment thus reducing the number of families living in poverty.

- Local intelligence suggests that the needs of teenage fathers are not always recognised. Changes in service delivery are required to better support the engagement of teenage fathers.

- Under-16 year old conceptions are not reducing as rapidly as the 15-17 year olds, the reasons for this are not clear.

- Research suggests that, nationally, teenage conceptions may be reducing due to a fall in traditionally risky behaviours such as drinking and drug taking (Paton 2016). It is unclear whether this reduction in risky behaviours is reflected in Nottingham.

- More information is needed about the girls for whom their pregnancy does not end in a live birth, including both terminations and miscarriages, as these girls are at more risk of going on and having further pregnancies. This information will enable schools and other providers to put services in place such as intensive SRE, sexual health services and ensure that, where they are statutory school age, the education support officer works intensively with them.

- Further information is needed about the barriers to girls not using, or not effectively using contraception, following a termination. This will enable sexual health services and others to support girls to choose and use contraception that is right for them.

- Sexually transmitted infection rates are high in Nottingham. It is unclear whether the increased use of long-acting reversible contraception is associated with a reduction in condom use in young people aged under-18.

- It is not clear why many teenage parents choose not to return to education, training and/or employment. A better understanding of

these reasons would enable schools and colleges to plan effectively to maximise the chances of this cohort of young people.

- It is unclear why fewer girls who become pregnant as a teenager choose to have a termination. It is important that girls have the information that they need in order to make informed choices regarding termination.

Recommendations for consideration by commissioners

- Encourage every school in Nottingham to sign-up to the SRE Charter; particularly those schools in areas of high teenage conceptions.

- Encourage all secondary schools to provide access to sexual health services such as EHC and pregnancy testing on the school site in addition to signposting pupils to other sexual health provision in the community.

- Ensure that all services working with children and young people adapt to meet the needs of an increasingly diverse city.

- Encourage services to collect data to assess the needs of migrants from different European communities who increasingly feature in Nottingham's under-16 conception statistics.

- Devise ways of collecting more timely local data to accurately inform commissioning decisions, including real time data on the number of live births and terminations by ethnicity, age etc.

- Increase the number of pregnant teenagers and teenage parents who continue to take part in education, employment or training.

- Encourage services working with pregnant teenagers and teenage parents to support the engagement of teenage fathers.

- Investigate the reasons why under-16 year old conceptions are not reducing as rapidly as those in the 15-17 year old age-group.

- Find out if teenage conceptions in Nottingham, as research suggests at a national level, are reducing due to a fall in traditionally risky behaviours such as drinking and drug taking.

- Find out more information about the girls for whom their pregnancy does not end in a live birth, including both terminations and miscarriages, as these girls are at more risk of going on and having further pregnancies. This information should be used to enable schools and other providers to put services in place.

- Investigate what the barriers are to girls not using, or not using effectively using contraception, following a termination. This will enable sexual health services and others to support girls to choose and use contraception that is right for them.

- Carry out research to establish if the increased use of long-acting reversible contraception is associated with a reduction in condom use in young people aged under-18.

- Establish the reasons why many teenage parents choose not to return to education, training and/or employment to enable schools and colleges to plan effectively to maximise the chances of this cohort of young people.

- Establish why, in Nottingham, fewer girls who become pregnant as a teenager choose to have a termination.

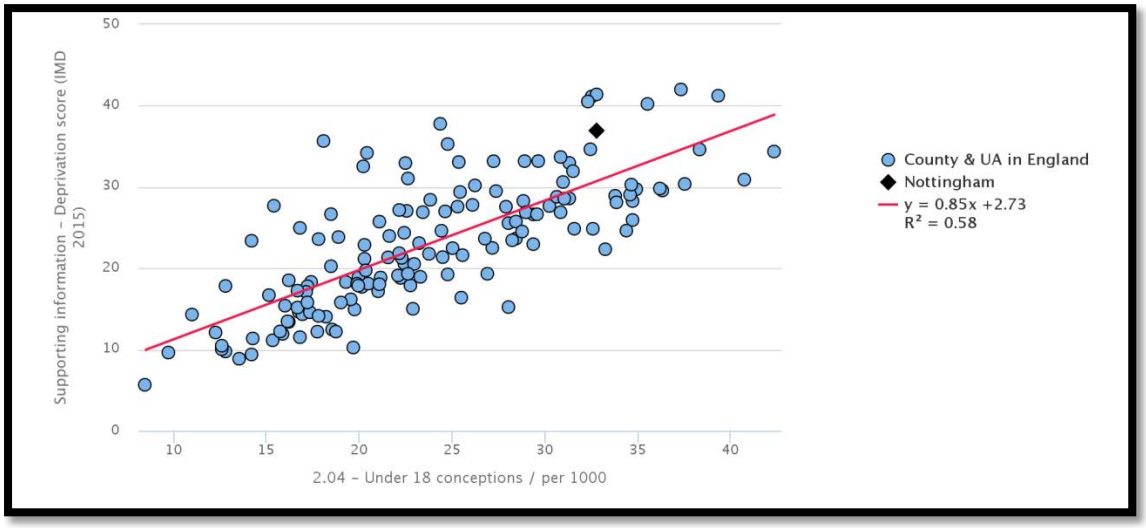
What do we know?

1. Who is at risk and why?

Living in a deprived area is a risk factor associated with conceiving and giving birth at age 17 and under; these girls are also more likely to have more than one conception before the age of 18 (Crawford, et al. 2013).

As figure 2 illustrates, there is a significant correlation between deprivation and teenage pregnancy with half of all under-18 conceptions in England occurring in the 20% most deprived wards (Department for Education, 2006). Teenage pregnancy rates in the most deprived 10% of wards are four times higher than in the 10% least deprived wards.

Figure 2: Relationship between Deprivation and Teenage Pregnancy Rate for County and Unitary Authorities in England



Source: PHOF, Teenage Conception Rate (2014), Public Health England

Girls who attend higher performing schools are less likely to conceive and more likely to have a termination if they do conceive (Department for Education, 2013). In 2016, the percentage of pupils gaining five GCSEs at grade A* to C in Nottingham, including English and Maths, was 44.6% as compared to the national average of 57.7%. Broken down by gender, 49.5% of girls achieved five GCSEs at grade A* to C as compared to 38.5% of boys.

Findings from the third National Survey of Sexual Attitudes and Lifestyle (Natsal-3, 2012) show that pregnancies in women aged 16–19 years were most commonly unplanned (45·2% [CI 30·8–60·5]). However, 16-19 is not the age group where most conceptions were unplanned; this was the 20–34 year old age-group (62·4% [CI 50·2–73·2]). Factors strongly associated with unplanned pregnancy were first sexual intercourse before 16 years of age (age-adjusted odds ratio 2·85 [95% CI 1·77–4·57], current smoking (2·47 [1·46–4·18]), recent use of drugs other than cannabis (3·41 [1·64–7·11]), and lower educational attainment. Two thirds of young people didn't have sex until they are at least 16 and this did not change significantly between NATSAL 2000 and NATSAL 2010.

National and international evidence suggests that the majority of girls who conceive under-16 and under-18 do not have specific risk factors. Although some girls are at much greater risk of conceiving and giving birth as teenagers than others, the majority of girls that conceive do not share these risk factors. Therefore, a strategy that seeks to reduce teenage conception by a substantial margin cannot concentrate on high risk groups alone (Crawford, et al. 2013). For example, although pupils in receipt of free school meals are more likely to conceive, the majority of pupils who conceive are not eligible for free school meals (Department for Education, 2013).

However, some young people are more at risk of teenage pregnancy and will need greater support; these risk factors include, but are not limited to:

1.1 Strongest individual risk factors

- Pupils eligible for free school meals (Crawford, et al. 2013). Matched data from the Office for National Statistics and the National Pupil Database illustrates that those eligible for free school meals are more than twice as likely (4.9%) to conceive than those who are not (2.3%) by the end of Year 11.
- Persistent school absence in pupils in Year 9. Matched data from the Office for National Statistics and the National Pupil Database illustrates that persistent absentees are over three times more likely to conceive by the end of year 11 than good attenders (Crawford, et al. 2013).

- Slower than expected progress in pupils between KS2 and KS3 (years 7-9) is a strong risk factor. Girls who make slower than expected progress during the early years of secondary school are significantly more likely to conceive and to continue with the pregnancy after conception. There is some evidence to suggest that this increased risk is greater in higher performing schools than in lower performing schools (Crawford, et al. 2013).

1.2 Other associated risk factors

- Low maternal aspirations of daughters at age 10. A US longitudinal study by Oshima, M et al. (2013) contained 325 'looked after' young people. The study concluded that young people in the foster care system are at high risk of early pregnancy regardless of maltreatment history, religiosity or school attendance. They also found that males who left the care system before the age of 19 were also more likely to father a child as a teenager (Oshima, M et al. cited in Fallon and Broadhurst, 2015).
- Young people who have experienced sexual abuse and exploitation. Young mothers and fathers are twice as likely to have been sexually abused in childhood as the general population. Survivors of sexual abuse may have low self-esteem and less ability to resist unwanted sex. Child Sexual Exploitation is thought to have a similar impact (Noil and Shenk, 2013, Young, et al. 2011 and Fatherhood Institute, 2013).
- Having a previous pregnancy. 20% of births to under-18s are to teenagers who already have a child and 11% of terminations to under-19s are repeat terminations (Hadley and Evans, 2013).
- Living in a deprived area is a risk factor associated with conceiving and giving birth over and above the risk associated with individual deprivation and these girls are also more likely to have more than one conception before the age of 18 (Crawford, Cribb and Kelly, 2013).
- Girls attending lower performing schools are more likely to conceive and are less likely to have a termination if they do conceive (Crawford, Cribb and Kelly, 2013).

It is important that these risk factors are not seen as causal as a range of confounding factors present may also have an impact on under-18 conception rates. Also, differences in conception behaviour are substantially smaller once a full set of individual, school and area characteristics are taken into account indicating that many of the risk factors are correlated with one another (Crawford, Cribb and Kelly, 2013).

The DfE (2006) go further to describe a multitude of factors that increase the risk of teenage pregnancy, categorising them into three broad groups; risky behaviours, education-related factors and family / background factors.

1.3 Risky behaviours

The early onset of sexual activity is a key risk factor with girls having sex under-16 being three times more likely to become pregnant than those who first have sex over 16. Education is also a factor as around 60% of boys and 46% of girls who left school at 16 with no qualifications had sex before 16 as compared to around 20% of both males and females who left school at 17 or over with qualifications. A survey carried out as part of the 2001 Census found that around a quarter of boys and a third of girls who left school at 16 with no qualifications did not use contraception at first sex, compared to only 6% of boys and 8% of girls who left school at 17 or over, with qualifications.

Young people who participate in risk-taking behaviour such as alcohol and drug use and misuse. An estimated one in 12 girls under-20 accessing drug and alcohol services are either pregnant or teenage mothers (Public Health England, 2014). Research carried out by Alcohol Concern in 2002 with south London teenagers found regular smoking, drinking and experimenting with drugs increased the risk of starting sex under-16 for both men and women. Another study (Redgrave and Limmer, 2005) in Rochdale found that sexual activity and problematic alcohol use are clearly linked to young people's aspirations. Those with the lowest aspirations are more likely to have had sexual intercourse and to have been drunk more than

once in the last month. One in five white girls reported going further sexually than intended because they were drunk.

Being a teenage mother carries a risk of becoming a mother for a second time whilst still a teenager with around 20% of births at under-16 being second or subsequent births. Similarly, around 7.5% of terminations under-18 follow either a pregnancy or termination. Within London this proportion increases to around 12% of under-18 terminations.

1.4 Education-related factors

The likelihood of teenage pregnancy is far higher among those with poor educational attainment, even after adjusting for the effects of deprivation. On average, deprived wards with poor levels of educational attainment had an under-18 conception rate double that found in similarly deprived wards with better levels of educational attainment (80 per 1000 girls compared with 40 per 1000). Among the most deprived 20% of local authorities, areas with more than 8% of half school days missed had an under-18 conception rate 30% higher than areas where less than 8% of half days were missed (Department for Education, 2006).

A study commissioned by the Teenage Pregnancy Unit at the time of the 2001 Census found that disengagement from education often occurred prior to pregnancy with less than half of teenage mothers attending school regularly at the point of conception (Office for National Statistics, 2004).

Overall, nearly 40% of teenage mothers left school with no qualifications. Among girls leaving school at 16 with no qualifications, 29% will have a birth below the age of 18 and 12% a termination below the age of 18, compared to 1% and 4% respectively for girls leaving at 17 or over (Department for Education, 2006). By age 30, teenage mothers are 20% more likely to have no qualifications than other mothers who are not in education, training or employment and are 22% more likely to be living in poverty than mothers that gave birth at 24 or over. Leaving school at 16 is also associated with having sex under-16 and poor contraceptive use at first sex (Department for Education, 2006).

1.5 Family / Background factors

Research by Berington, et al. 2005 found that by the age of 20 a quarter of children who had been in care were young parents. The prevalence of teenage motherhood among looked after girls under-18 is around three times higher than the prevalence among all girls under-18 in England.

Research findings, from the 1970 British Cohort Dataset, showed being the daughter of a teenage mother was the strongest predictor of teenage motherhood and that children of teenage mothers have a 63% increased risk of being born into poverty compared to babies born to mothers in their 20s and are more likely to have avoidable injuries and behavioural problems.

Research findings by Wellings, et al. (2013) suggested that a mother with low educational aspirations for her daughter at age 10 is an important predictor of teenage motherhood.

1.5.1 Ethnicity

Data on mothers giving birth below the age of age 19, identified from the 2011 Census, show rates of teenage motherhood are significantly higher among mothers of ‘Mixed White and Black Caribbean’, ‘Other Black’ and ‘Black Caribbean’ ethnicity. ‘White British’ mothers are also over represented among teenage mothers, while all Asian ethnic groups are under-represented. In Nottingham, the Education Support Officer for Teenage Pregnancy has witnessed a significant change in the ethnicities of those on her caseload (which consists of school-age young people who get pregnant and choose to continue with their pregnancies).

A survey of adolescents in East London by Viner and Roberts, 2004 found that the proportion of young people having first sex under-16 was higher among the Black Caribbean boys (56%) as compared with 30% of Black African boys, 28% of White boys and 11% of Indian and Pakistani boys. For girls, 30% of both White and Black Caribbean girls had sex under-16, compared with 12% for Black African and less than 3% for Indian and Pakistani girls.

1.6 Impact on young parents and their children

Public Health England (2016) (as cited in Oshima, Narendorf and McMillen, 2013) state that:

- Teenage mothers are twice as likely to smoke before and during pregnancy and three times more likely to smoke throughout pregnancy (Health and Social Care Information Centre, 2010 Table 11.11).
- Teenage mothers are a third less likely to start breastfeeding and half as likely to be breastfeeding at 6-8 weeks (Ref 15 tables 2.4 and 2.14 ONS 2010).
- Babies of teenage mothers have a 13% higher risk of stillbirth. The reasons for this are multi-factoral eg social deprivation, poverty and lifestyle (Office for National Statistics, 2014a Table 10).
- Babies of teenage mothers have a 56% higher risk of infant death as compared with mothers of all ages (Office for National Statistics, 2014a Table 10).
- Babies of teenage mothers are three times more likely to die from Sudden Unexplained Death in infancy. The reasons for this are multi-factoral and could include lifestyle factors and late booking for maternity services (Office for National Statistics, 2014b Table 7 ONS 2014).
- Children of teenage mothers are twice as likely to be hospitalised for gastroenteritis or accidental injury (Peckham, 1993).
- At age five, children of teenage mothers are four months behind on spatial ability, seven months behind on non-verbal ability and 11 months behind on verbal ability (Kiernan and Mensah, 2011).
- Teenage mothers are three times more likely to experience postnatal depression and have higher rates of poor mental health for up to three years after the birth. This is distressing for the young parent, undermines their ability to parent positively and is the most prevalent risk factor for poor child development outcomes (NICE, 2014).
- Parenting is the biggest single factor affecting children's wellbeing and development. Two in three teenage mothers experience relationship breakdown in pregnancy or in the three years after birth; compared to one in 10 older mothers (Kiernan and Mensah, 2011).

- Children born to teenage mothers have a 63% higher risk of living in poverty (HM Government, 2014).
- One in five girls aged 16-18 are not in education, employment or training (NEET) are teenage mothers (Department for Education, 2015).
- Women who were teenage mothers are 22% more likely to be living in poverty at age 30 (Department for Children, Schools and Families and Department of Health, 2007).

2. Size of the issue locally

2.1 Demography

20% of Nottingham's population are below 18 years of age, 64.8% of whom live in households where no adults work, or where household income is low. This is statistically higher than the national average. In 2015, unemployment in Nottingham was around 9.1%. Over the period 2013-15, life expectancy was 76.8 years for men and 81.4 for women in Nottingham.

Nottingham City has approximately 16,200 13-17 year olds, equating to 5.1% of the population in 2014 (ONS 2014 mid-year estimates). According to the 2017 Nottingham Health Profile (Public Health England, March 2017), Nottingham has higher than average levels of deprivation and poor health with around 34.3% of under-16s living in poverty as compared to the national average of 18.6%.
In Nottingham 580 (5.8%) young people aged between 16 and 18 years were NEET in 2015, the England average was 4.2%.

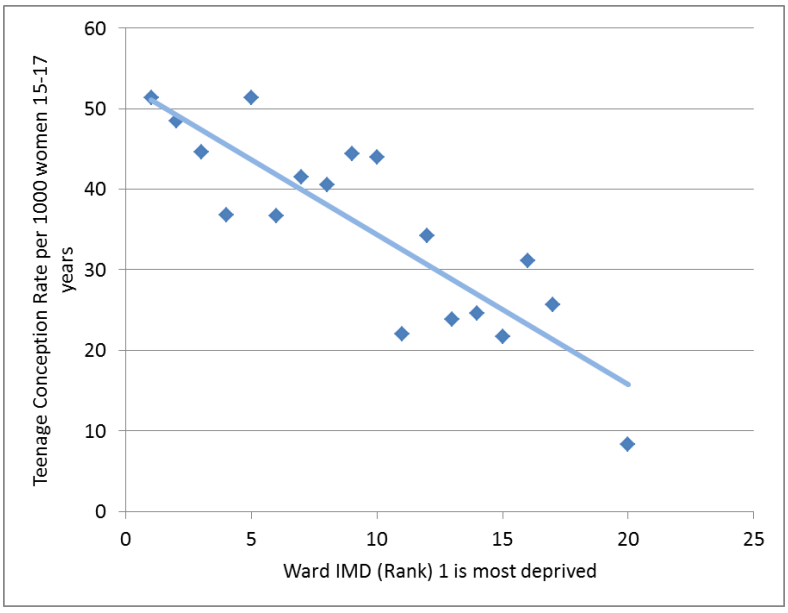
The teenage population is projected to grow by around 12% between 2014 and 2020 (from 25,000 to 28,000). Most of the growth is in the 10-14 year age group, with 15-17 year olds remaining static (at around 9,600 persons).

2.2 Teenage Conceptions

Teenage conception figures are published quarterly after a 14-month time lag[3]. The most recent annual figures are for 2015 and show that the teenage pregnancy rate in Nottingham City stood at 31.2 pregnancies per 1000 15-17 year old girls. This rate was 58.2% lower than the 1998 baseline and was a 4.9% decrease from the same period in 2014. This can be compared to a 55.4% reduction in the under-18 conception rate in England from 47.1 in 1998 to 20.8 in 2015. Current rates, both in Nottingham and England as a whole, are the lowest since data collection began in 1969. This indicates that high rates are not inevitable, even in deprived areas like Nottingham.

As figure 3 illustrates, there is also a strong correlation in Nottingham between deprivation at ward level and teenage conception rates. This reflects the national picture.

Figure 3: Relationship between deprivation and teenage conception rate for Nottingham Wards 2012-14



Source: Office for National Statistics (2015) Ward Conception Rates – confidential data

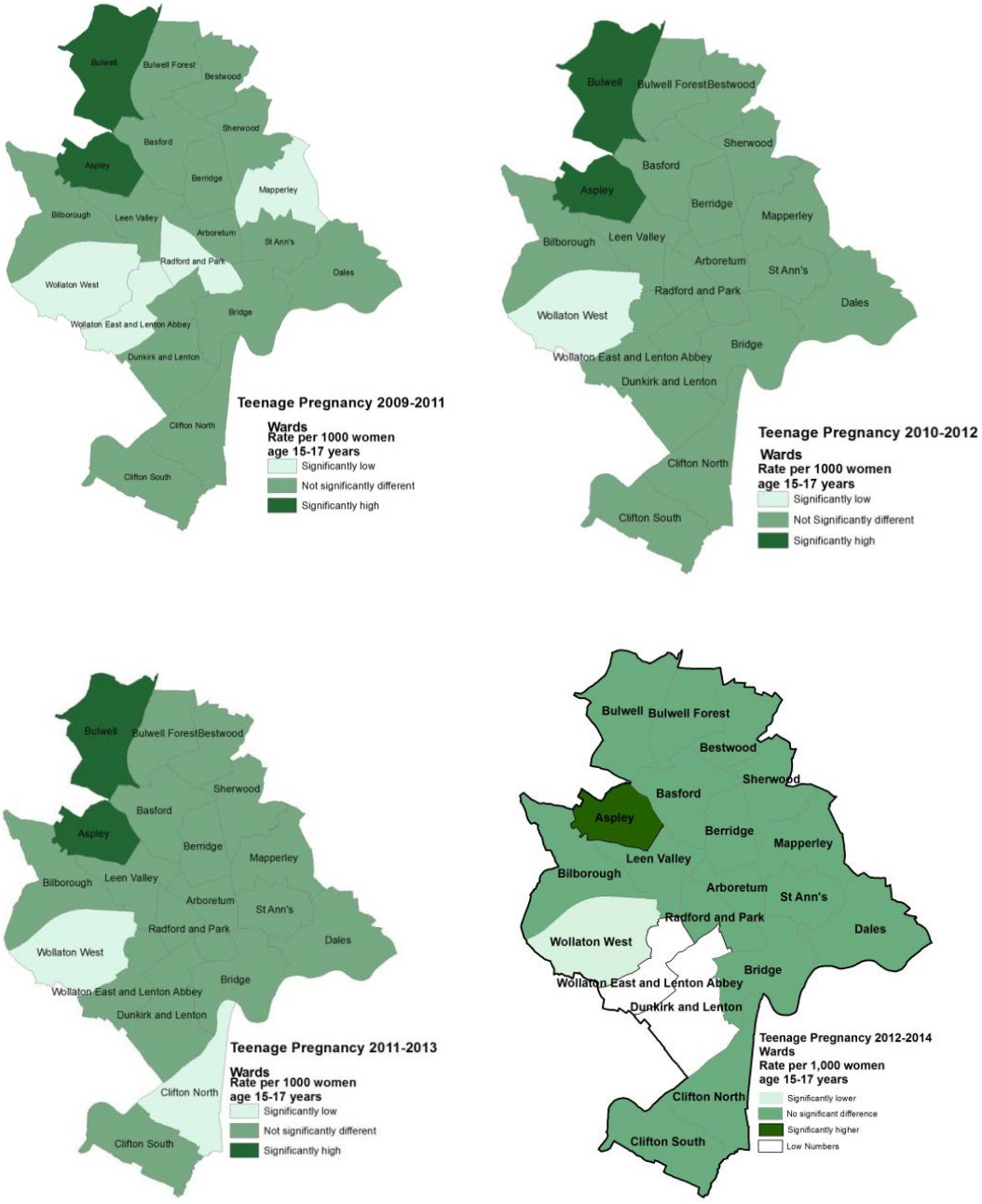
[3] Provisional quarterly conception figures are published 14 months after the quarter has ended as conceptions include pregnancies which lead to one or more live births or stillbirths hence statistics can only be compiled once births relating to conceptions in the reference year are registered - registration of a birth is legally required within 42 days of its occurrence.

In Nottingham, during 1998 there were 380 under-18 conceptions compared to 152 in 2015. This represents a 60% reduction in numbers over the 17-year period.

The wards with the highest three-year aggregated rates of under-18 conceptions, over 2012-14 (the latest available data) were Arboretum, Aspley and Bulwell, though due to the overall reduction in the number of conceptions, only Aspley was significantly higher than the Nottingham average.

Wollaton West rate was significantly lower than the Nottingham average and two wards had such low numbers that they have been suppressed due to risk of disclosure (Dunkirk & Lenton and Wollaton East & Lenton Abbey). The wards with the highest and lowest rates remained unchanged between 2009 and 2014 though numbers of conceptions have fallen to such an extent that only Aspley is now significantly higher than average; this can be seen throughout the maps in Figure 4.

Figure 4: Nottingham ward conception rates 2009 – 2014

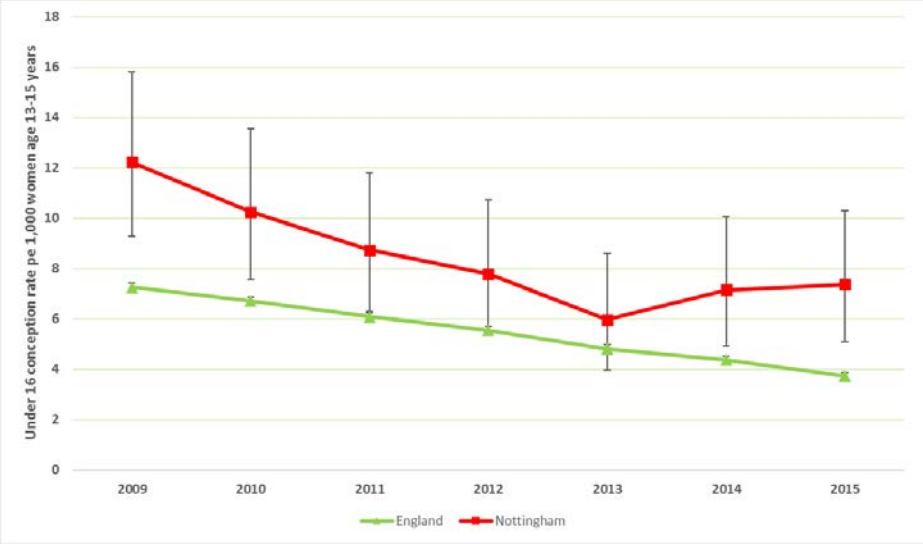


Source: Office for National Statistics (2015) Ward conception rates 2009-11, 2010-12, 2011-13 and 2012-14 - confidential data.

Figure 5 illustrates that the under-16 conception rate was 7.4 girls per 1000 aged 13-15 years during 2015. This equated to 34 conceptions under the age of 16 in Nottingham during 2015. This was a slight increase on the previous two years after

a steady decrease from 2008 and was statistically higher than the England average rate of 3.7 per 1000.

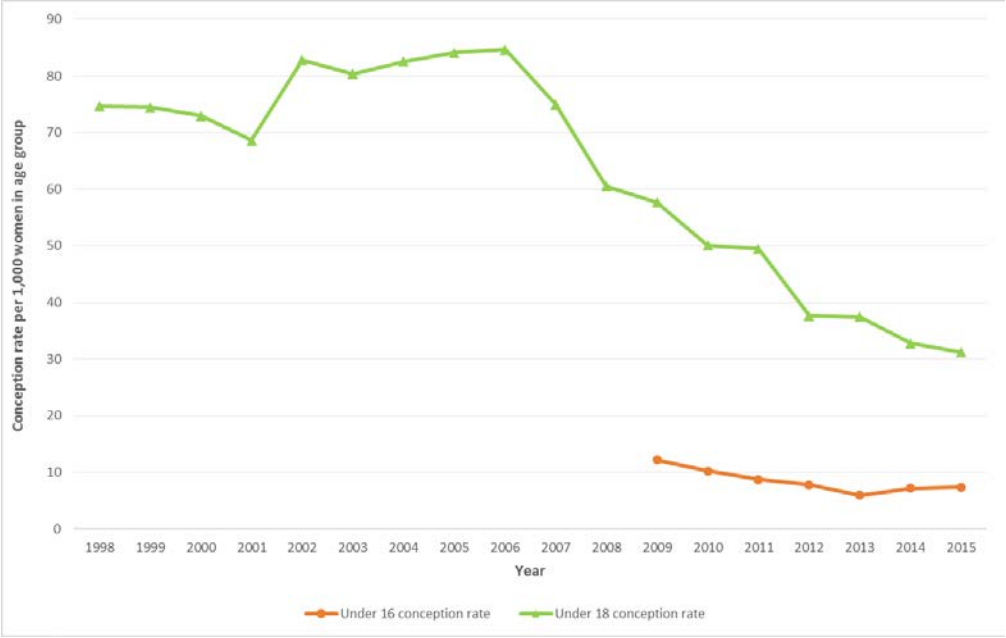
Figure 5: Trend in under-16 conception rates 2009-2015



Source: Office for National Statistics (2017) Dataset of conception statistics, England and Wales 2015

Figure 6 contrasts reductions in under-18 and under-16 conceptions and shows that under-16 conceptions do not show the same significant downward trend as under-18s.

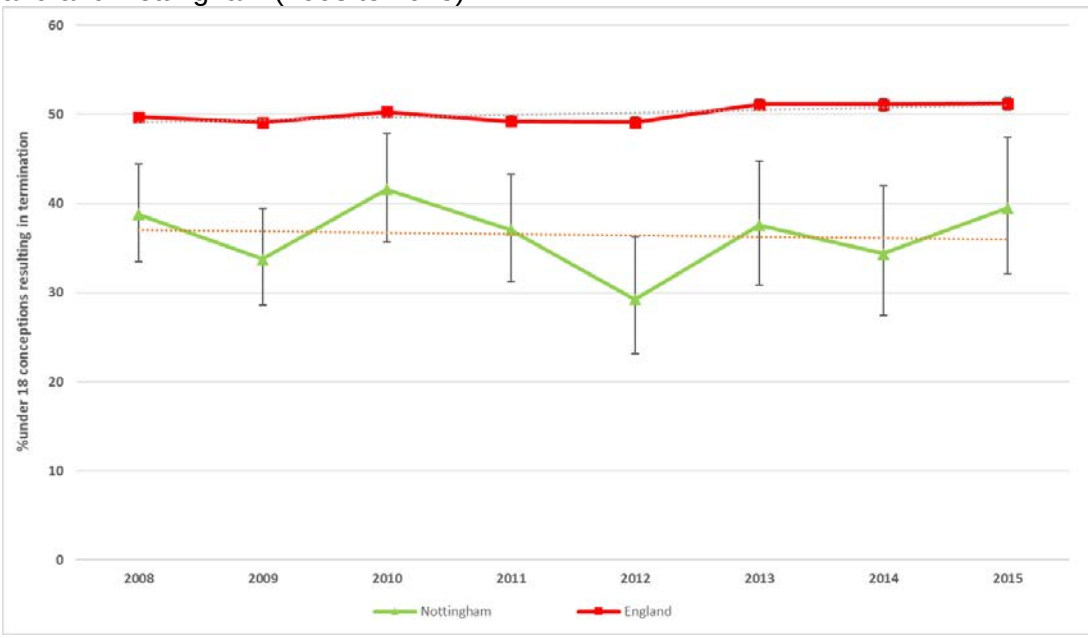
Figure 6: Trend in under-18 and under-16 teenage conception rates in Nottingham



Source: Office for National Statistics (2017) Dataset of conception statistics, England and Wales 2015

Of the 152 under-18 conceptions in Nottingham during 2015, 39.5% (CI 32% – 47.4%) led to a termination. This equated to the termination of 61 conceptions. As Figure 7 illustrates this is not a statistically significant change from 1998 when the under-18 termination rate in Nottingham was 28.4%. This proportion of conceptions resulting in termination is significantly lower than the 2015 England average under-18 termination rate of 51.1%.

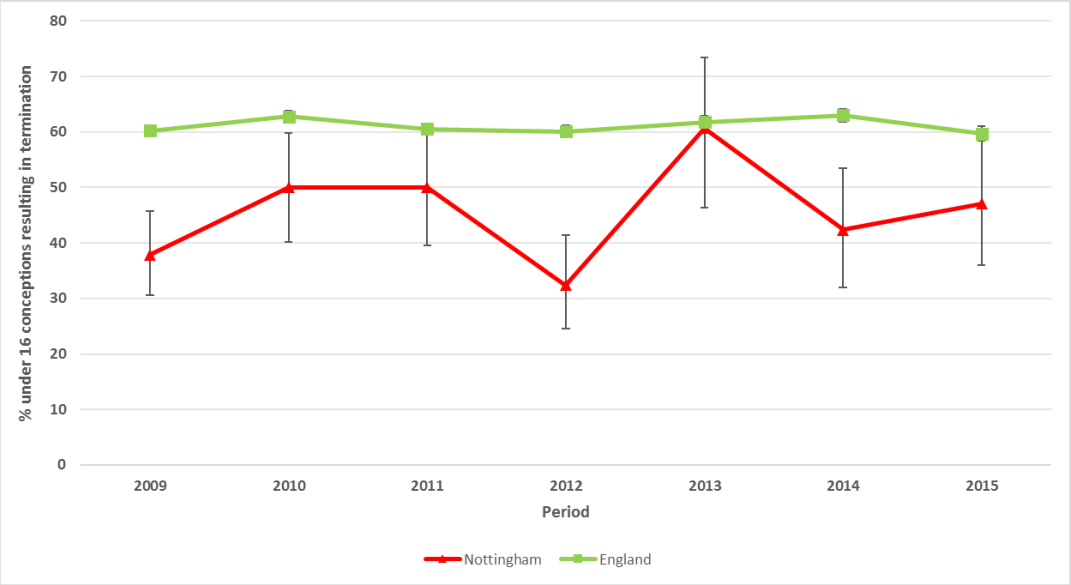
Figure 7: Trend in proportion of conceptions under-18 years resulting in termination in England and Nottingham (2008 to 2015)



Source: Office for National Statistics (2008 – 2015) Abortion statistics, England and Wales

Figure 8 shows that 47.1% of under-16 conceptions in Nottingham in 2015 led to a termination compared to the national average of 59.5%. Further investigation is necessary to establish any potential reasons for these variations in the under-16 conception and termination rates as under-16 year old conceptions are not reducing as rapidly as in the 15-17 year old cohort.

Figure 8: Trend in proportion of under-16 conceptions resulting in termination



Source: Office for National Statistics (2016) Dataset of conception statistics, England and Wales 2015

Nottingham City Council has a statutory duty under Section 19 of the Education Act 1996 to arrange suitable full time education for any pupils of compulsory school age that would not otherwise received such an education. This includes pupils of compulsory schools age who become pregnant or who are teenage parents. The Education Support Officer (Teenage Pregnancy) undertakes the statutory duty of the local authority, in line with national good practice, to support and track education access and outcomes for this cohort.

Education provision has been reformed following the closure of Nottingham's education centre for pregnant teenagers and teenage parents, due to dwindling numbers which made the centre financially unviable. Now, a model is in place to provide broad and balanced access to the curriculum for pregnant teenagers and teenage parents within mainstream schools settings.

In Nottingham, real time data for school-age teenage pregnancies is available via the EOTP. During 2015, there were 22 school-age conceptions that led to live births in Nottingham. Most referrals to the EOTP were from the wards of Berridge, Radford and Park, The Dales and Aspley; this does not correspond with the local picture of under-18 conceptions where most are found in Aspley, Arboretum and Bulwell. We

are not clear about the reasons for this variation. The data from the EOTP illustrates a wide variation in the number of teenage pregnancies across schools.

Whilst the majority of the school-age pregnancies are from a White British background, Nottingham is becoming a more diverse city with an increasing number of citizens from diverse backgrounds, culture and heritage and there has been a clear shift over the last two years in the ethnicities of under-16s who become pregnant. Within Nottingham the number of girls conceiving in the under-16 age group from groups other than 'White British' increased from 15% of the Education Officer for Teenage Pregnancy's caseload in the academic year 2012-13 to 52% of the caseload in the academic year 2014-15.

2.3 Contraception and sexual health services

In 2015-16, around 20,000 Nottingham city residents attended sexual health[4] services including outreach services. Approximately, 9% of attendees were aged 13-17. As can be expected some people attended more than once; there were 29,500 attendances in total. 1788 young people aged 13-17 attended 3,014 times (10% of attendances) and 675 young people attended more than once.

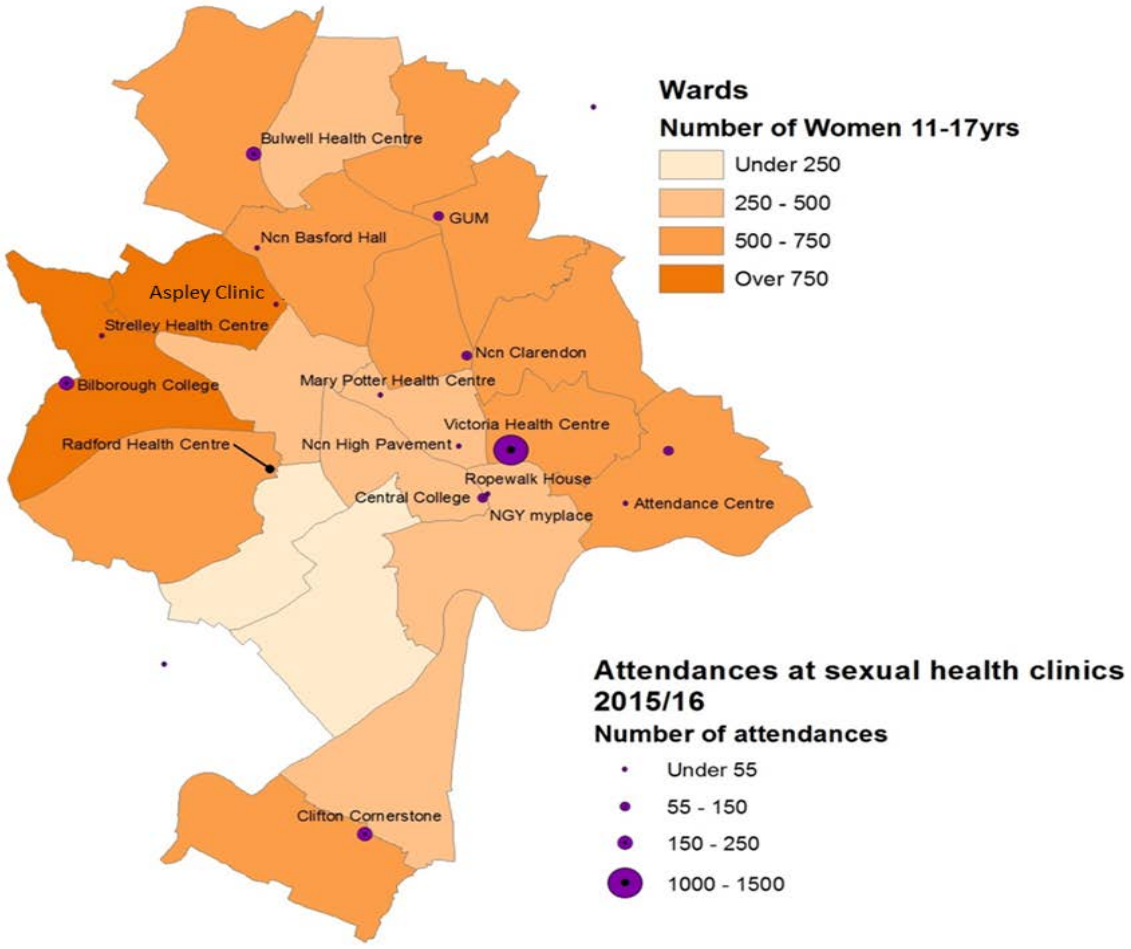
Around 73% of all clients were female with 79% of those aged 13-17 years being female. 80% of attendances in those aged 13-17 years were for contraceptive services from a sexual health services clinic. Some clients may also have received STI tests, advice and/or treatments. The majority of young people received a mixture of long and short term contraceptives including:

- Condoms (586 attendances).
- The contraceptive pill (712 attendances at clinics during 2015-16).
- Emergency hormonal contraception (155 attendances).
- IUD fitting/the coil.
- Implants (implants (295 attendances).
- Patches (48 attendances).
- Contraceptive injections (186 attendances).

[4] STI and contraception services

Clients received a range of other services including sexual health screening, pregnancy testing, termination of pregnancy counselling and other specialist counselling. Figure 9 shows the number of girls aged 11-17 years at ward level and the number of attendances at sexual health services. It should be noted that many girls choose to attend a clinic away from where they live to protect their anonymity.

Figure 9: Attendances at health clinics across Nottingham's wards.

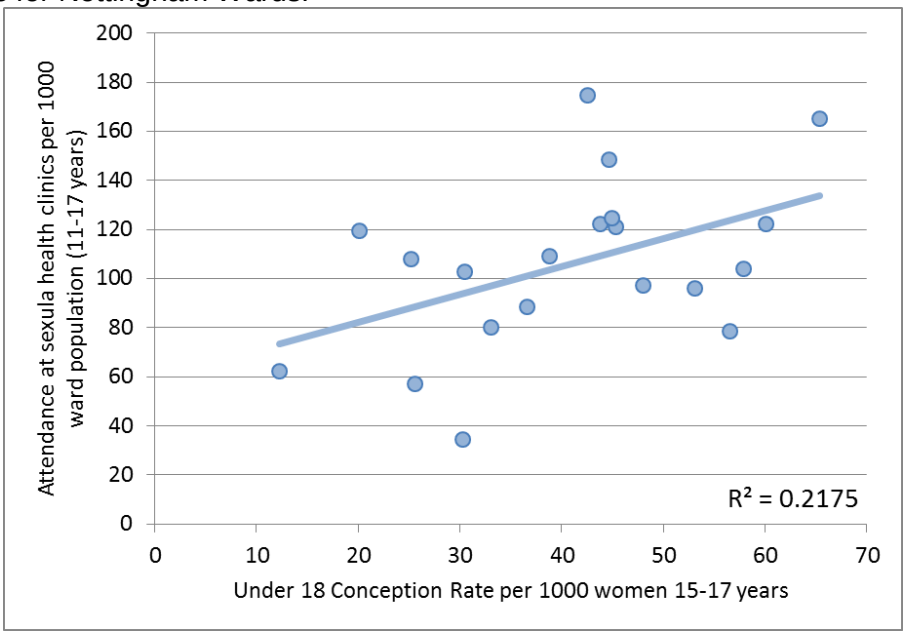


Source: Nottingham City Council Service monitoring data.

The sexual health services uptake rate in 2015 for those aged 11-17 years was 109 attendances per 1000 population. This varied at ward level between 34 per 1000 in Radford and Park and 174 per 1000 population in Clifton South. As Figure 10

illustrates there was a weak positive correlation between high service uptake and teenage pregnancy rate (r^2 =22%).

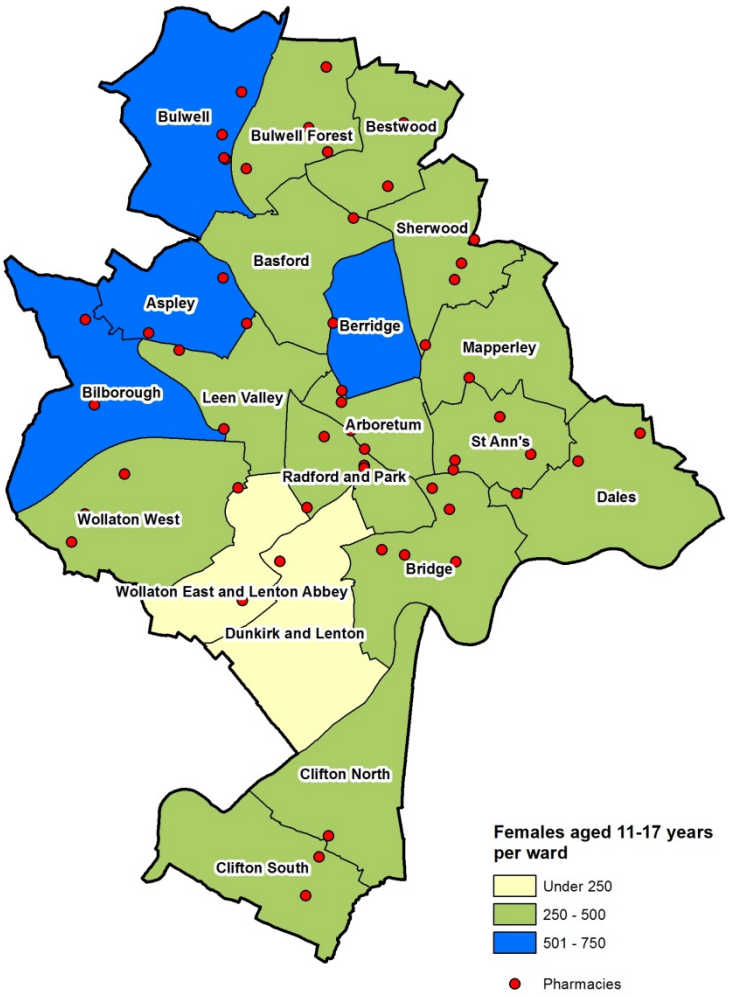
Figure 10: Relationship between attendance at sexual health clinics and teenage conceptions for Nottingham Wards.



Source: Nottingham City Council Service monitoring data.

In Nottingham, 56 out of 71 pharmacies provide emergency hormonal contraceptive (EHC) (Nottingham City Pharmaceutical Needs Assessment, 2015). Levonorgestrel Emergency Hormonal Contraceptive (EHC) is supplied free of charge to young people aged 13 years or older in order to reduce levels of unplanned pregnancy. Figure 11 shows the number of teenage girls per ward in Nottingham plotted alongside the location of pharmacies that provide EHC.

Figure 11: An illustration of the number of girls living in Nottingham Wards in relation to pharmacies offering Emergency Hormonal Contraception.



Source: Nottingham City Council.

3 Targets and performance

The Public Health Outcomes Framework contains the following relevant indicators relevant to the teenage pregnancy prevention agenda:

- **PHOF 2.04 - Under-18 conceptions and conceptions in those aged under-16** (the majority of under-16 and under-18 conceptions are unplanned).

- **PHOF 3.02 - Chlamydia detection rate (15-24 year olds)**
- **PHOF 1.03 - Pupil absence**. Teenage pregnancy is a key public health issue re educational inequalities and pupil absence is a risk factor in teenage pregnancy.
- **PHOF 1.05 - 16-18 year olds not in education, employment or training**. Nationally 11% of young people NEET are teenage mothers or pregnant teenagers.
- **PHOF 4.01 - Infant mortality.** 2012 statistics show that babies born to teenage mothers have a 44% higher risk of infant mortality (Hadley, Chandra-Mouli and Ingham, 2016).
- **PHOF 2.01 - Low birth weight of term babies.** Babies born to teenage mothers have a 21% higher risk of low birth weight compared to babies of mothers of all ages (Office for National Statistics, 2014 Table 10).
- **PHOF 2.03 - Smoking status at time of delivery.** Teenage parents are three times more likely to smoke throughout their pregnancy compared with mothers of all ages (Health and Social Care Information Centre, 2010 Table 11.11).
- **PHOF 2.02i and 2.02ii - Breastfeeding initiation and breastfeeding prevalence at 6-8 weeks after birth.** Nationally, teenage mothers have a 33% lower rate lower rate of breastfeeding than older mothers (Health and Social Care Information Centre).
- **PHOF 2.07i – Hospital admissions to hospital caused by unintentional and deliberate injuries in children (aged 0-4 years).** Babies born to teenage mothers have a higher rate of A&E attendance for falls and swallowing substances (Peckham, 1993).

The Framework for Sexual Health Improvement in England (Department of Health, 2013) has the ambition to ‘continue to reduce under-16 and under-18 conceptions’.

The Child Poverty Strategy (HM Government, 2014) has a target to ‘reduce the number of under-18 conceptions locally and nationally’ as children of teenage mothers have a 63% increased risk of experiencing child poverty).

Locally, local targets and priorities include:

- The Nottingham City Council Plan to 2020 includes a target to reduce teenage pregnancy by a further third between 2015 and 2019 as the target to half teenage pregnancy by 2020 had already been met by 2014.
- The Nottingham City Clinical Commissioning Group Strategy states that they "will work with public health and support the implementation of prevention and health promotion programmes including immunisations, vaccinations, sexual health and preventing unplanned teenage pregnancy".
- The Nottingham City Children and Young People's Plan refresh for 2015-16 describes reducing the teenage pregnancy rate as a key indicator of ensuring that young people have a positive, informed approach to risk-taking.
- The delivery of Teenage Pregnancy Plan 2014-16 is led and coordinated through the high level Teenage Pregnancy Taskforce and focuses on improving health outcomes, improving teenage pregnancy preventative and support services, improving contraception services and sexual health advice, improving sex and relationships education, increasing the number of teenage parents in education, employment or training alongside improving the evidence base through data collection and intelligence.

4 Current activity, service provision and assets

4.1 Primary prevention services

Nottingham City's Sexual Health Services for young people seek to deliver accessible and integrated sexual health services within the community, focusing on those that are aged 13-25 and at risk of poor sexual health. Sexual Health Services are available across many locations eg schools, health centres, colleges, Children's Centres etc. and offer advice and support on the full range of contraceptive services, and emergency contraception, making referrals as appropriate. The team work to key performance indicators that are designed to ensure equality of access to the services across all geographic and communities of interest in Nottingham.
Outreach Services are set up for young people (aged 13 –25) to get free confidential help and advice about sex and relationships, resisting peer pressure, sexuality, contraception and STIs.

All young people, including those under 16 have a right to private and confidential advice about their sexual health and relationships. There are a number of outreach clinics across Nottingham that make it easier for young people to get the support they need.

The **C-Card Scheme** provides free condoms young people aged between 13 and 24 in Nottingham City, providing free condoms, lube and dams, sexual health information alongside help and advice. There are 37 registration points for C-Card in the City as well as a further 50 pick-up points.

General Practitioners provide information and contraception including Long Acting Reversible Contraception (LARC).

Pharmacies across Nottingham provide a range of services including emergency contraception and pregnancy testing. During 2015-16, 56 pharmacies were contracted to provide emergency hormonal contraception; within these pharmacies there were 3709 consultations and 3643 prescriptions for Levonelle issued. During 2015-16, 53 pharmacies were contracted to provide the C-Card scheme for citizens aged 13-24; there were 4012 C-Card transactions issued and 11887 condoms collected. During 2015-16, there were 28 pharmacies contracted to provide pregnancy testing with 111 pregnancy consultations or tests carried out.

The **Public Health Nursing for school-aged children and young people service** (school nursing service) is central to supporting good sexual health outcomes and the reduction in teenage pregnancies by providing information and practical support and through the delivery of 'Clinic in a Bag'. The school nurse team comprises specialist public health nurses, registered nurses, HCAs and Nursery Nurses, working in teams across primary and secondary schools. The 'Clinic in a Bag' includes:

- C-Card registration and pick-up
- Chlamydia and Gonorrhoea screening
- Condoms (without C-Card)
- Pregnancy testing
- Emergency contraception

- Advice and support
- Signposting to services
- SRE

The Public Health Nursing team is divided into smaller teams, each which serve an area of schools. There is a website for further information and contact numbers for the team.

The delivery of effective **Sex and Relationship Education (SRE)** is encouraged in all schools as an evidence-based approach to reducing pregnancy rates by the Nottingham City Council PSHE Advisory Team. The recently launched Sex and Relationships Education Charter for Nottingham outlines the requirements of effective Sex and Relationships Education for all children and young people. Following the launch of the Charter in 2016, over a quarter of schools in Nottingham have signed up to it.

Family and Community Teams support activities for children, young people and families and are based in Children's Centres. The teams have staff trained to deliver sexual health, contraceptive and positive relationships advice as well as support to young people and adults aged 13-25. Each Children's Centre has dedicated support for teenage parents.

Universal and targeted youth provision carries out project work to raise aspirations and promote positive relationships.

4.2 Early intervention and support

Termination of pregnancy services include counselling and support whilst making a decision, counselling and support after a decision to terminate a pregnancy has taken place and further counselling and support about their decision when a young person has decided to have a termination. Depending on the number of weeks

pregnant the citizen is, the pregnancy is ended either by taking the medication *mifepristone* or by having a surgical procedure.

Two termination of pregnancy assessment clinics a week were provided by NUH Sexual Health services. Of the 1401 elective termination of pregnancy procedures accessed by Nottingham women in the year 2015/16, 93.2% were accessed in Nottingham City. Approximately 3% of those accessing the procedure were aged 13-16 and around 21% were aged 17-20.

4.3 Support for teenage parents

4.3.1 Supporting and developing the workforce

The membership of the Teenage Pregnancy Network membership stands at around 150 and information is disseminated thorough events and a quarterly news bulletin. The successful teenage pregnancy and sexual health training programme for the wider workforce is ongoing – courses include sexual health, diverse communities and sexual exploitation.

4.3.2 Support for pregnant teenagers and teenage parents

Accommodation services for vulnerable teenage parents have recently been re-commissioned and prioritise those with the highest need. The main accommodation provides twelve self-contained flats within a twelve unit hostel to house homeless pregnant teenagers, teenage mothers and their children. A further four units of dispersed accommodation to accommodate teenage fathers alongside their children and / or partners has also been commissioned.

The **Family Nurse Partnership** programme provides support and guidance for up to 200 pregnant girls and teenage mothers each year. It is a licensed, intensive home visiting programme working with teenage parents to improve pregnancy outcomes, child health and development as well as aspirations for parents and their baby.

The Family Nurse visits from early pregnancy until the child is two years old developing relationships with the mother, father and family to support and educate on parenting and any issues that concern the young woman. The programme aims

to enable young mums to have a health pregnancy, improve their child's health and development as well as plan their own futures and aspirations.

This complexity of need is also highlighted within the Family Nurse Partnership caseload. Figure 12 shows the levels of social care intervention present on their caseload between April 2015 and March 2016.

Figure 12: Levels of Social Care intervention on the caseloads of Nottingham Family Nurse Partnership.

FNP clients - child protection intervention	**% of clients (mothers)**
Clients who are on a Child In Need Plan	7.6%
Clients who are on a Child Protection Plan	1.1%
Clients with a pre-birth assessment (planned or completed)	12%
Clients with a multiagency plan	14.1%
Clients who are Looked After Children	3.3%

Source: *Family Nurse Partnership* Service monitoring data 2016.

The **Education Officer for Teenage Pregnancy** provides one-to-one support for pregnant teenagers and teenage parents to maximise engagement in education. The officer co-ordinates and monitors the participation and attainment of all pregnant teenagers and school-age parents, assisting them to overcome barriers to accessing education and prevent social exclusion.

The **Teenage Pregnancy Midwifery Service** is available to support all pregnant under-18s (and under-19s with additional needs) offering flexible, one to one care for young parents. The ultimate aim of the service is to empower teenage mothers,

increase their self-esteem, promote a sense of self-worth and ultimately boost their confidence as a parent.

Many of these girls will have a Family Nurse Partnership nurse and access the generic maternity service too. Alongside this, the generic midwifery and health visiting services support all young parents.

5 Evidence of what works

The National Institute for Clinical Excellence (NICE) compares the cost-effectiveness of medical interventions. NICE states that long Acting Reversible Contraceptive (LARC) methods (intrauterine devices, the intrauterine system, injectable contraceptives and implants) are more cost effective than the combined oral contraceptive pill particularly in client groups such as young people who are the least likely to comply effectively with oral contraception.

NICE guidance (2014) on NHS provision of contraceptive services for young people up to the age of 25 found strong effectiveness for the supply of Emergency Hormonal Contraception, the promotion of condoms, school-based provision, community outreach as well as tailoring services for socially disadvantaged young people. Moderate effectiveness was found for computer-based interventions. Weak effectiveness was found with social marketing and there was unclear effectiveness re home visiting to prevent repeat conceptions, generic programmes to prevent repeat conceptions and generic youth interventions.

A retrospective cohort study by the University of York, on behalf of the National Institute for Health Research found that, among patients with a mean age of 23.7, pregnancy was much more likely in the 493 participants taking oral contraceptives and the associated costs were higher than the 493 participants using the long-acting reversible contraceptive Implanon. For the group using oral contraceptives, there were 43 pregnancies across the three years of the study with an associated cost of £83.02 per patient per year for the contraceptives. This can be compared to the Implanon group where there were no pregnancies in the three years with an associated cost of £50.30 per patient per year (Lipetz, Phillips, and Fleming, 2009).

The Teenage Pregnancy Advisory Group Final Report states that every £1 invested in contraception saves the NHS £11 plus additional welfare costs for teenage parents. The report states that if local areas were to stop investing in teenage pregnancy prevention they would face much bigger costs within the same year and subsequent years.

The evidence-based Teenage Pregnancy Self-Assessment Toolkit supports local areas in performance managing their teenage pregnancy strategies based on ten key areas, all of which were adopted by Nottingham in the redevelopment of the Teenage Pregnancy Plan in 2014:

a) Strategic leadership of the teenage pregnancy strategy. In Nottingham this responsibility sits with the Teenage Pregnancy Taskforce which is chaired by the portfolio holder for health.
b) Detailed, accurate and up-to-date data and information. In Nottingham this is produced quarterly following the ONS data release and is disseminated to the Teenage Pregnancy Taskforce and the wider Network via a quarterly newsletter.
c) An effective media and communications strategy. All outward facing communications regarding teenage pregnancy are checked by the Council's Communications and Marketing Department.
d) Strong delivery of Sex and Relationships Education / Personal Social and Health Education. In Nottingham, schools are encouraged to sign up to the Nottingham Sex and Relationships Education Charter.
e) Provision of young people focused contraception and sexual health services. In Nottingham this is delivered through a hub and spoke model with core clinics and satellite clinics, condom registration and collection points.
f) Workforce training on teenage pregnancy and sex and relationship issues. Providers are commissioned to deliver training for the wider workforce on all aspects of sexual health and teenage pregnancy.
g) Targeted work with 'at risk' groups of young people. Sexual Health Services work with groups of 'at risk' young people (for example with the Youth Offending Team or with specific migrant communities) to reduce unplanned teenage pregnancy.

h) Work to raise aspirations including through schools.

i) Work with parents / carers on preventing teenage pregnancy. Sexual Health Services work with young people to provide advice on the options available to reduce unplanned pregnancies. The Family Nurse Partnership and Teenage Pregnancy Midwifery Team work with teenage parents to help prevent unplanned subsequent pregnancies.

j) Supporting teenage mothers and young fathers. The Teenage Pregnancy Midwifery Team, the Family Nurse Partnership and the Education Support Officer for Teenage Pregnancy all support teenage mothers and fathers to achieve positive outcomes.

Literature reviews led by the teenage pregnancy unit and others has yielded consistent evidence on what works:

- Provision of high quality, comprehensive SRE (Kirby 2007) and improved use of contraception (Kantor et al 2008) are the strongest areas where empirical evidence exists regarding impact on teenage pregnancy rates (see also the NATSAL 2010 survey).
- SRE and contraception provision for all, with more intensive support for young people at risk, combined with additional motivation to delay early pregnancy (see NICE Public Health Guidance 2014 and World Health Organisation guidance February 2014).
- Dedicated coordinated support for teenage parents with more intensive support for the most vulnerable – Sure Start pilot programme and Family Nurse Partnership. A teenage pregnancy prevention strategy that seeks to reduce conception rates by a substantial margin cannot concentrate on high risk groups alone.

In contrast there is no strong evidence for alternative approaches to reducing teenage conceptions, for example those that are abstinence-based (Kantor et al 2008).

6 What is on the horizon?

The population of Nottingham is increasing and is predicted to rise from 318 900 in 2015 to 332 700 in 2024. The population is also becoming more diverse. This increase in diversity has brought with it different cultural norms around sex and relationships. Most of the increase in population is made up from an increase in pupil numbers and migration from Eastern and Central Europe.

Previous modelling suggested that Nottingham could reduce under-18 conceptions by 37% by 2020 from the baseline year of 1998. Progress towards the target has been better than expected and the data for the year of 2015 shows that this target has already been surpassed; the reduction stands at 58.2%. The East Midlands Public Health Observatory produced a tool that forecasts under-18 conception rates. The tool forecasts that Nottingham's rate will go down to 25.7 in 2015, 22.2 in 2016, 19.3 in 2017, 16.7 in 2018, 14.4 in 2019 and 12.5 in 2020. As the risk factors teenagers becoming pregnant now are more complex now than they were five years ago it is unlikely that these dramatic reductions will occur, however there is currently a general downward trend.

Nottingham City Council's Education Officer for Teenage Pregnancy works with school-age pregnant teenagers and teenage parents and has reported an increasing complexity of need among her caseload; there are now more children who are 'looked after' or are classed as a 'child in need'**.**

7 Local Views

Several sets of consultation have taken place over the last three years including:

- For the school cluster group health profiles. Consultation resulted in a two page health profile for each of the 13 school cluster groups which includes teenage pregnancy indicators such as educational achievement, eligibility for free school meals, persistent school absence and pupil expected to get pregnant before the age of 18. The latest available profiles indicate that Areas 1, 2 and West in the North of the Nottingham have the highest rates with Areas 7 and 8 having the lowest.

- With pregnant teenagers and teenage parents during the supported accommodation teenage parent review. This consultation found that both teenagers and stakeholders valued the bespoke supported accommodation provided for pregnant teenagers and teenage parents although requested accommodation for fathers too and more independent 'move on' lighter touch supported accommodation. This was commissioned with the new service coming on line on 1 November 2016.
- Focus groups facilitated by Professor Yamamoto regarding sexual risk taking in Nottingham's secondary schools found that pupils did not see sexual relationships as red (dangerous) for either 13-15 year olds or for 16-18 year olds. For all focus groups, except one, having sex aged 16 or above was normative behaviour. Discussion around 13-15 years olds focused more on the difference between 13 and 15 (with 14 being seen as a transition point), the importance of consent and the importance of using protection. In most cases personal experience in the shape of positive evidence was the measure against which they made judgements (Yamamoto, B and Mawer, K 2016).
- Children's Society research in Nottingham captured views from young people about living in Nottingham; 3500 young people were surveyed and 470 young people were interviewed. The survey was carried out in 13 primary schools, eight secondary schools and one special school and found that young people in secondary school year groups are generally less happy about their lives and school experience compared to primary school, with further gender differences; secondary school girls are particularly less happy about their lives and school. Compared to national levels, children and young people in Nottingham City are more likely to have negative opinions about adults in their local areas, as well as safety and freedom in their local area (The Children's Society, 2016).

What does this tell us?

8 Unmet needs and service gaps

- Not all young people have access to comprehensive Sex and Relationships Education (SRE). Whilst the proportion of schools signing-up to the SRE Charter is encouraging some schools appear reluctant to sign-up; some of these schools are in areas of high teenage conceptions.

- Pupils at Nottingham schools don't have equitable access to sexual health services such as Emergency Hormonal Contraception (EHC) and pregnancy testing on the school site. This is due in part to whether schools find this provision acceptable but also to whether there are sufficient public health nurses to deliver the provision.

- Whilst the majority of the school-age pregnancies are from a White British background as Nottingham becomes increasingly diverse city there are more conceptions in pupils from Black and Minority Ethnic (BME) communities. Current services may need to adapt to meet their needs.

- There is insufficient data to assess the needs of migrants from Europe who increasingly feature in Nottingham's under-16 conception statistics. This is particularly true of Central and Eastern European Roma families who do not identify themselves as a single, homogenous community.

- With the 14-month time delay in reporting teenage conceptions, it is important to collect more timely local data to accurately inform commissioning decisions. Current systems do not enable the collection of real time data on the number of live births and terminations by ethnicity, age etc. This information would be useful when commissioning services as it would help ensure that services are responsive to need.

- Nottingham's high rate of teenage pregnancy is commensurate with Nottingham's over-representation of structural, demographic and psychosocial risk factors within the population. Long-term strategies are needed to increase the proportion of citizens in employment thus reducing the number of families living in poverty.

- Local intelligence suggests that the needs of teenage fathers are not always recognised. Changes in service delivery are required to better support the engagement of teenage fathers.

9 Knowledge gaps (from literature and local knowledge

Under-16 year old conceptions are not reducing as rapidly as the 15-17 year olds, the reasons for this are not clear.

Research suggests that, nationally, teenage conceptions may be reducing due to a fall in traditionally risky behaviours such as drinking and drug taking (Paton 2016). It is unclear whether this reduction in risky behaviours is reflected in Nottingham.

More information is needed about the girls for whom their pregnancy does not end in a live birth, including both terminations and miscarriages, as these girls are at more risk of going on and having further pregnancies. This information will enable schools and other providers to put services in place such as intensive SRE, sexual health services and ensure that, where they are statutory school age, the education support officer works intensively with them.

Further information is needed about the barriers to girls not using, or not effectively using contraception, following a termination. This will enable sexual health services and others to support girls to choose and use contraception that is right for them.

Sexually transmitted infection rates are high in Nottingham. It is unclear whether the increased use of long-acting reversible contraception is associated with a reduction in condom use in young people aged under-18.

It is not clear why many teenage parents choose not to return to education, training and/or employment. A better understanding of these reasons would enable schools and colleges to plan effectively to maximise the chances of this cohort of young people.

It is unclear why fewer girls who become pregnant as a teenager choose to have a termination. It is important that girls have the information that they need in order to make informed choices regarding termination.

What should we do next?

10 Recommendations for consideration by commissioners

- Encourage every school in Nottingham to sign-up to the SRE Charter; particularly those schools in areas of high teenage conceptions.

- Encourage all secondary schools to provide access to sexual health services such as EHC and pregnancy testing on the school site in addition to signposting pupils to other sexual health provision in the community.

- Ensure that all services working with children and young people adapt to meet the needs of an increasingly diverse city.

- Encourage services to collect data to assess the needs of migrants from different European communities who are increasingly featuring in Nottingham's under-16 conception statistics.

- Devise ways of collecting more timely local data to accurately inform commissioning decisions, including real time data on the number of live births and terminations by ethnicity, age etc.

- Increase the number of pregnant teenagers and teenage parents that are in education, employment or training.

- Encourage services working with pregnant teenagers and teenage parents to support the engagement of teenage fathers.

- Investigate the reasons why under-16 year old conceptions are not reducing as rapidly as those in the 15-17 year old age-group.

- Find out if teenage conceptions in Nottingham, as research suggests at a national level, are reducing due to a fall in traditionally risky behaviours such as drinking and drug taking.

- Find out more information about the girls for whom their pregnancy does not end in a live birth, including both terminations and miscarriages, as these girls are at more risk of going on and having further pregnancies. This information should be used to enable schools and other providers to put services in place.

- Investigate what the barriers are to girls not using, or not using effectively using contraception, following a termination. This will enable sexual health services and others to support girls to choose and use contraception that is right for them.

- Carry out research to establish if the increased use of long-acting reversible contraception is associated with a reduction in condom use in young people aged under-18.

- Establish the reasons why many teenage parents choose not to return to education, training and/or employment to enable schools and colleges to plan effectively to maximise the chances of this cohort of young people.

- Establish why, in Nottingham, fewer girls who become pregnant as a teenager choose to have a termination.

Key contacts

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