Nottinghamshire Health & Wellbeing Board

Topic information	
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Executive summary

Introduction

The previous Nottinghamshire Sexual JSNA Chapter was refreshed in 2015 and amended in July 2017. It has been two and a half years since the local authority commissioned sexual health services in 2016 and this chapter has been refreshed to look at the sexual health landscape to understand current and future demands, trends and pressures.

This JSNA chapter has been endorsed by the Nottinghamshire/Nottingham Sexual Health Strategic Advisory Group (SHSAG). The chapter will be used to refresh the Sexual Health Framework for Action which aims to provide a clear and ambitious plan for improving the sexual health and wellbeing of the people of Nottinghamshire.

Definitions and overall approach

Sexual health is defined by the World Health Organisation as: 'a state of physical, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled'.[1]

This JSNA chapter was produced in collaboration with Nottingham City Public Health. This chapter focuses on Nottinghamshire and considers the need, evidence of effective interventions and current service provision for:

- sexually transmitted infections, including HIV,
- contraception,
- terminations of pregnancy,

This chapter identifies unmet needs and knowledge gaps and reflects on potential future changes in sexual health. A series of recommendation are made for stakeholders across the sexual health system to consider.

This chapter does not focus on domestic abuse, teenage pregnancy, sexual violence or gynaecology as they are covered in other published documents. Further information can be found on the Nottinghamshire Insight website. A summary of the responses to the preceding assessment can be found in appendix 1.

Nottinghamshire County is similar to the rest of the country when considering key sexual health outcomes. In Nottinghamshire there has been a slight increase in new diagnoses of STIs, similar to the rise seen nationally. The chlamydia detection remains low compared to the rest of the country although the most up to date data indicates that Nottinghamshire is beginning to improve. Nottinghamshire is performing well in relation to the rate of Longer Action Reversible Contraception (LARC) prescribed but there are local differences in demand and provision.

Unmet needs and service gaps

The following unmet needs and service gaps have been identified:

- There are differences in sexually transmitted infection patterns in terms of gender, age and locality.
- Men, especially young white men, are less likely to access sexual health services.
- Variation in chlamydia detection rates across the district suggests that there is a need to improve access to testing in different localities.
- Access to and effective use of contraception,

These are explored in more detail in section 8 of this JSNA chapter.

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Recommendations for consideration by commissioners

The recommendations below are summarised from section 10 and identify key changes needed to address the sexual health needs of people in Nottinghamshire County.

	Recommendation	Lead organisation			
		SHSAG	Local Authority	Providers	Others
Sexual Health Promotion					
1.	Consider more robust planning and evaluation around communications for sexual health campaigns.	/	/	/	/
2.	Consult with the community to understand the views of citizens and barriers for those who use (and do not use) sexual health services, especially those from identified at risk groups.	/	/		
3.	Consider further assessments/audits including engagement with specific sexual health needs of some at risk groups such as young offenders, sex workers, MSM and LGBT Q+ communities.	/	/		
4.	Support stakeholders to prepare Nottinghamshire schools for the implementation of statutory RSE in September 2020.		/		
Prevention of poor sexual health outcomes					
5.	Work with a range of partners and stakeholders from within the health care system with the aim of addressing the pressures in the sexual health system in order for citizens to continue to receive the right care in the right place at the right time.	/	/	/	/
6.	Develop a further understanding of factors contributing to reinfections and how behaviour change can be encouraged via sexual health services and health promotion routes.			/	
7.	Investigate the differences in sexual health outcomes within the districts of Nottinghamshire to understand the potential causes and implement interventions where appropriate.	/	/	/	/
8.	Continue efforts to improve Nottinghamshire's chlamydia detection rate to regional and national averages, with the aspiration of achieving the PHOF target.	/	/	/	/
9.	Investigate what is driving the drop in HIV testing coverage and uptake within Nottinghamshire.	/	/	/	/
10.	Consider auditing Locally Commissioned Public Health Services (LARC/EHC) across Nottinghamshire to enhance understanding of demand, provision and potential unmet needs.		/		
Sexual health treatment					
11.	Consider reviewing and refining service user satisfaction data collection methods to understand how people use sexual health services and what services people want.		/	/	
12.	Consider a service evaluation of the online chlamydia testing service to understand who is using it, the cost effectiveness of the service and anticipated future demand.		/		
13.	Understand and plan for issues on the sexual health horizon such as testing for M. Gen, roll out of PrEP and increased service demand.	/	/	/	/
14.	Ensure that MSM are tested regularly and in line with the current guidance			/	

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Full JSNA report

What do we know?

1. Who is at risk and why?

1.1 Defining sexual health

Good sexual health is an important aspect of health and wellbeing, and it is vital that people have the information, the confidence and the means to make choices that are right for them, regardless of their age, gender, ethnicity, sexual orientation, religion, belief or disability. It helps people to develop positive relationships and enables them to protect themselves and their partners from infections and unintended pregnancy.

STIs are infections that are transferred from person to person predominantly by sexual contact but also through non-sexual means such as via blood or blood products and from mother to child during pregnancy and childbirth[2]. Examples of STIs include chlamydia, gonorrhoea, primarily hepatitis B, HIV, and syphilis.

In 2017, there were 422,147 new STI diagnoses made at sexual health services in England. Of these, the most commonly diagnosed STIs were chlamydia (48% of all new STI diagnoses), first episode genital warts 1(4%), gonorrhoea (11%), and non-specific genital infections (8%). Compared to 2016 the total number of new STIs diagnosed in 2017 remained relatively stable (0.3% decrease from 423,352 to 422,147)[3]. Better uptake of testing and frequent asymptomatic testing of those at risk is likely to have played a part in early diagnosis and treatment thus reducing the risk of onward transmission.[4]

1.2 Why is Sexual Health a Public Health issue?

Sexual health is an important and wide-ranging area of public health. Sexual health is a broader topic than sexually transmitted infections and includes areas such as contraception, abortion, sexual assault, healthy relationships and the wider reproductive health of men and women. Promoting good sexual and reproductive health, exploring healthy relationships, encouraging self-management and having the correct sexual health interventions can all have a positive effect on population health and wellbeing.

1.3 Inequalities within sexual health

Some groups within the population are at higher risk of poor sexual health. The highest burden of sexually related ill-health is borne by groups who often experience other inequalities in health, including men who have sex with men, young people, black and minority ethnic groups, and people living in socio-economically deprived areas. They often experience additional stigma, discrimination and obstacles in accessing services which can further impact their sexual health.

The following table seeks to outline identified risk groups in respect of securing good sexual health.

Figure 1.1: Table to describe at risk groups and associated sexual health risk factors

At risk group	Rationale
Young people under 25 years old	Most people become sexually active between the ages of 16 and 24.[5]Young people in these age groups have significantly higher rates of poor sexual health, including the highest diagnosis rates of the most common STIs[6], are more likely to access emergency contraception[7] and termination of pregnancy.[8]
People with a mental health problem	People with a mental illness, especially those with a serious mental illness are at increased risk of sexual violence, domestic abuse and may also suffer from side effects of antipsychotic medication which can affect libido or sexual function.[9]
People with a learning disability and/or autism	Coping with puberty, sexual identity and sexual feelings can be more difficult for people with learning disabilities who might be struggling to understand their emotions and body. People with learning disabilities often do not have good access to sexual health services, and may face exclusion, stigma and discrimination.[10]
People with non-traditional gender identity such as transgender and non-binary identity	Sexual health needs of people will vary according to their gender, particularly in respect of the provision of contraception and termination of pregnancy services. Conversely, some people may not attend services due to stigma and embarrassment. However people of all genders, including transgender people, can be affected by STIs.
People who belong to ethnic minorities	Rates of STI diagnosis vary considerably between different ethnic groups, according to cultural factors, deprivation and common sexual norms. Stigma and language barriers may prevent members of some ethnic minority groups from easily accessing sexual health services.[11]
Sexual Orientation	Lesbian, gay, bisexual and transgender people experience a number of health inequalities which can be unrecognised in health and social care settings. Men who have sex with men remain one of the highest risk groups for HIV transmission in the UK.
People Who Inject Drugs (PWID)	PWID are vulnerable to infection through their injecting practices and also frequently-associated sexual behaviour. There is a high prevalence of Hepatitis C amongst PWID and late diagnosis of HIV. PWID have low rates of consistent condom use; frequently report having multiple sexual partners and can face barriers to accessing HIV/STI testing and treatment service.[12]
People who are homeless	Homeless people are at an increased risk of STIs and unwanted pregnancies and can come under pressure to exchange sex for food, shelter, drugs and money.
People in the criminal justice system	People convicted of a crime who are accommodated in prison have a higher risk of STIs and HIV because of injecting drug use and high risk sexual behaviour.[13]
People involved in sex work	People involved in sex work are at higher risk of STIs. They are also more likely to experience violence, rape and sexual assault, homelessness, and drug and alcohol problems which multiply their risk of poor sexual health outcomes.[14]

Social inequality	Inequality is often a predictor of sexual health outcomes. Poor sexual & reproductive health is much more common among people who already experience inequality associated with their age, gender, ethnicity, sexuality, or economic status.[15] For example teenage pregnancy is both a cause and consequence of health and education inequalities.[16]

Source: (Adapted from: Department of Health, A Framework for Sexual Health Improvement in England, 2013)

2. Size of the issue locally

This section considers the evidence of local sexual health need in Nottinghamshire County. This includes sexually transmitted infections, HIV, access to and use of contraception, termination of pregnancy, sexual health by socio-economic deprivation, age and gender and sexual orientation. Issues such as pregnancy teenage, sexual abuse and child sexual exploitation are covered in other chapters which can be found on Nottinghamshire Insight. Key points for the local assessment of sexual health need are included in this chapter, but further detail is available via the Sexual and Reproductive Health Profiles and Local Authority Dashboards produced by Public Health England.

2.1 Sexually transmitted infections (STIs)

Across the East Midlands, the highest rates of STI diagnosis are seen in urbanised areas. In Nottinghamshire County there has been a slight increase in new diagnoses of STIs, similar to the rise seen nationally. Table 2.1 provides details of total number of diagnoses for the most common STIs in Nottinghamshire during the past three years. No significant change can be seen in the figures for all new STIs (exc chlamydia) in the last three years. However, when broken down by STI a steady decline in genital warts and genital herpes can be seen. Chlamydia DRI rates have been creeping up slowly during the same period. A RAG-rated breakdown by districts for 2017 is appended (appendix 2).

Table 2.1 Numbers and rates of diagnoses in Nottinghamshire for common sexually transmitted infections, 2015- 2017 (including chlamydia in 15-24 year olds)

	Number of diagnoses			Rate of diagnosis per 100,000 population			% change 2015-2017
	2015	2016	2017	2015	2016	2017	
All new STIs	4520	4283	4474	506.6	527.8	551.3	-1.7
Syphilis	31	36	38	3.8	4.4	4.7	21.8
Gonorrhea	372	276	328	46.2	34.0	40.4	-12.4
Chlamydia (aged 15-24)	1420	1402	1557	1563.8	1575.9	1750.1	11.9

Genital Warts	898	775	724	111.4	95.5	89.2	-19.9
Genital Herpes	434	393	399	53.8	48.4	49.2	-8.7

Compared with England	Better	Similar	Worse	Not compared

Source: Sexual and Reproductive Health Profiles, Fingertips, 2018

In 2017, Nottinghamshire had the second highest STI testing rate (exc. chlamydia in under 25s) (13,562 per 100,000) amongst its statistical neighbours and was ranked 82nd out of 152 counties and local authorities. The rate was higher than the preceding two years (2015 and 2016) where there had been a continued downward trend since 2014. The Nottinghamshire STI testing rate was also lower than England year on year since 2012.

For more detailed information on how Nottinghamshire compares to similar local authorities, visit the Local Authority Public health dashboards.

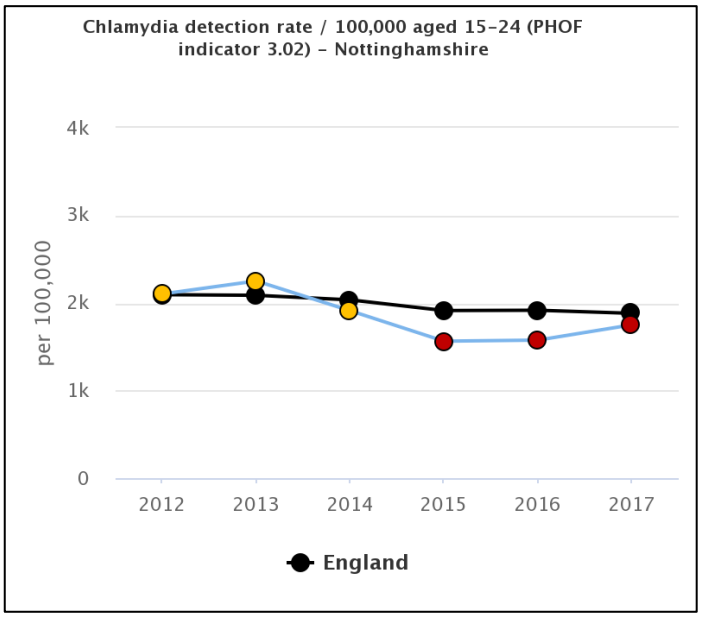
2.1.1 Chlamydia

Chlamydia is the most commonly diagnosed STI in the UK. It is caused by a bacterial infection and the majority of people who are infected will not have symptoms. It is easy to diagnose and treat, but if left untreated, infections can persist for years and cause serious complications including pelvic inflammatory disease (PID), ectopic pregnancy and infertility in women.

Due to the asymptomatic nature of chlamydia, a high detection rate (which is not to be taken as an indicator of prevalence) reflects success at identifying infections. A higher detection rate is expected to produce a decrease in chlamydia prevalence. Public Health England recommends that local authorities should be working towards achieving detection rates of at least 2,300 per 100,000 population aged 15-24, although the current England average is 1,882.

The detection rate in Nottinghamshire has generally been below the target of 2,300 per 100,000 and the England average (figure 2.1). In 2017, the Nottinghamshire chlamydia detection rate began to recover at 1,750 per 100,000 after dropping from 2,082 per 100,000 in 2013. Table 2.2 shows where screens are being performed and the positivity rate. It indicates that the combination of increased screening and positivity has led to an increased chlamydia detection rate. This means that screening is being targeted at the people most at risk of contracting chlamydia. The majority of testing is done within ISHS (56%) and GP surgeries (29%) but increasingly more testing is being provided online[17].

Figure 2.1: Chlamydia detection rate in Nottinghamshire.



Source: Sexual and Reproductive Health Profiles, Fingertips

Table 2.2: Location of chlamydia testing and positivity rate.

Year	Number of chlamydia tests in GUM	Number of chlamydia tests in non-GUM settings	Total number of tests	Positivity rate
2015	6567	7141	13708	10.4%
2016	6268	5955	12223	11.5%
2017	6969	5540	12509	12.4%

Source: GUMCAD

There are large variations in detection rates across the districts (table 2.3). In 2017, the chlamydia detection rate has been high in Mansfield and Ashfield but has performed least well in Rushcliffe, Gedling and Broxtowe. Understanding the reasons for these variations is important to improve the overall Nottinghamshire detection rate.

Table 2.3: Chlamydia detection rates in Nottinghamshire Districts, compared to England.

Chlamydia detection rate (% of 15-24 years old)	England	Nottinghamshire	Ashfield	Bassetlaw	Broxtowe	Gedling	Mansfield	Newark and Sherwood	Rushcliffe
2015	1914	1564	1687	1861	1169	1336	2859	1334	761
2016	1917	1576	1980	1622	1222	1410	2447	1393	954
2017	1882	1750	1994	1765	1239	1612	2765	1584	1308

Source: Sexual and Reproductive Health Profiles, Fingertips

Table 2.4 shows the chlamydia proportion 15-24 years old screened (%) and mirrors the good performance in Mansfield and Ashfield but has performed least well in Rushcliffe, Gedling and Broxtowe.

Table 2.4: Chlamydia testing rates in Nottinghamshire Districts, compared to England.

Chlamydia proportion 15-24 years old screened (%)	England	Nottinghamshire	Ashfield	Bassetlaw	Broxtowe	Gedling	Mansfield	Newark and Sherwood	Rushcliffe
2015	22.7	15.1	14.8	18.3	13.2	13.8	22.0	13.4	10.5
2016	21.0	13.7	16.6	18.2	12.0	12.4	17.3	12.0	9.8
2017	19.3	14.1	16.3	16.3	11.8	12.8	17.5	13.9	10.9

Source: Sexual and Reproductive Health Profiles, Fingertips

In November 2017, Public Health commissioned an online chlamydia testing service. Awareness and uptake of this service is growing, and as of August 2018 1,443 Nottinghamshire residents have been tested (table 2.5). It is not known whether people accessing this online service would have normally sought a chlamydia test via a clinic or whether this service is reaching new populations. Further analysis is required to measure and assess the impact of this service.

Table 2.5: Online chlamydia testing in Nottinghamshire by service provide.

Sexual Health Provider	Number of chlamydia kit requested	Number of actual tests completed	Return rate %	Positivity
Doncaster and Bassetlaw Hospital Trust	272	166	59.0%	10.8%
Sherwood Forest Hospital Trust	806	547	67.5%	11.0%
Nottingham University Hospital Trust	993	730	73.6%	8.8%
Nottinghamshire Total	2071	1443	66.7%	10.2%

Source: Preventx online management service.

2.1.2 Gonorrhoea

Gonorrhoea is the second most common bacterial STI in England and Wales, and like chlamydia can lead to serious long term health issues if untreated. Gonorrhoea infection is asymptomatic in around 10% of men and half of women. It is also a cause for public health concern due to developing antimicrobial resistance which is resulting in a growing number of difficult-to-treat infections. High rates of gonorrhoea and syphilis in a particular group can be an indicator of high levels of risky sexual behaviour. In addition, re-infection represents a significant proportion of STI clinic visits for gonorrhoea.[18]

In England, there were 44,676 diagnoses of gonorrhoea reported in 2017, a 22% increase relative to the year prior[19]. In Nottinghamshire, the Gonorrhoea diagnostic rate (per 100,000) is 40.4 which is lower than England (78.8) and the lowest amongst similar local authorities.

2.1.3 Syphilis

Syphilis is a relatively uncommon STI, but can have a devastating effect if left untreated. There were 7,137 diagnoses of syphilis reported in 2017 in England, a 20% increase relative to the year prior and a 148% increase relative to 2008[20]. Syphilis, like gonorrhoea, is an important sexual health consideration for MSM, as the significant majority of diagnoses nationally are made in this group. In Nottinghamshire, the syphilis diagnostic rate is 4.7 which remains below the England average.

2.1.4 Genital Warts and Genital Herpes

Nottinghamshire County rates for genital warts and genital herpes are lower than the England average (figure 2.4). Decreases in genital warts, as well as cervical cancer in the longer term, are expected in the future as a result of the national Human Papilloma Virus (HPV) immunisation programme in all girls aged 12–18 years.

2.1.5 Viral hepatitis

Further information on Hepatitis B and C in Nottinghamshire can be found in the JSNA chapter on Viral Hepatitis.

2.1.6 Pelvic Inflammatory Disease (PID)

PID is a clinical syndrome referring to infection and inflammation of the upper female genital tract which may lead to serious complications such as ectopic pregnancy, infertility and chronic pelvic pain. There are a variety of causes for PID, but research has estimated that gonorrhoea or chlamydia infection is a factor in around one quarter of cases in the UK.[21]

In 2016/17 Nottinghamshire County had a rate of 235/100,000 population for PID related hospital admissions amongst females aged 15-44 years. This was lower than the England rate (242/100,000). However, the rates recorded in Ashfield and Mansfield districts were amongst the highest in England. A recent clinical audit suggested that these high rates may be due to data issues. A more in depth audit is currently being undertaken.

2.1.7 Reinfection of STIs

Reinfection with an STI is an indicator of risky sexual behaviours, therefore, preventing STI reinfection continues to be a priority. In Nottinghamshire, during the period 2012-16, Ashfield and Mansfield had the highest proportion of reinfections within a 12-month period, higher than the national proportion (table 2.6).

Gonorrhoea is particularly an indicator of risky sexual behaviours[22] and reinfection represents a significant proportion of STI clinic visits for gonorrhoea.[23] It is also the most commonly diagnosed STI amongst MSM. During the period 2012-16, gonorrhoea reinfections within 12 months occurred most frequently in males in Ashfield and females in Newark and Sherwood. In many districts, figures were close to or higher than the national average.

Data on reinfections is challenging to obtain and further investigation is needed to understand what is driving higher rates of reinfection and how behaviour change can be encouraged via sexual health services and health promotion routes.

Table 2.6: Proportions of those with an acute STI presenting with a reinfection with 12 months in Nottinghamshire County Districts 2012-26 pooled.

	Percentage presenting with a new STI at a Sexual Health clinic from 2012 - 2016 who became reinfected within 12 months		Percentage presenting with Gonorrhoea at a Sexual Health clinic from 2012 - 2016 who became reinfected within 12 months	
	Male	**Female**	**Male**	**Female**
England	9.4	7.0	10.7	3.9
Ashfield	10.3	11.5	14.3	7.7
Bassetlaw	6.4	8.4	5.9	0.0
Broxtowe	6.7	7.1	0.0	3.5
Gedling	9.1	7.4	7.4	5.6
Mansfield	11.1	11.7	10.1	11.7
Newark and Sherwood	8.2	8.4	10.7	18.0
Rushcliffe	6.7	4.7	1.8	0.0

Source: PHE Laser Report 2016

2.1.7 Human Immunodeficiency Virus (HIV)

Antiretroviral therapy (ART), improved HIV testing uptake at STI clinics and repeat testing in the UK has led to a reduction in new HIV diagnoses amongst MSM for the first time. HIV has now become a long term condition rather than a fatal infection meaning that timely diagnosis can enable those with HIV to live disability free and for longer.

The prevalence amongst Nottinghamshire residents aged 15-59 years living with HIV is lower than the national rate (Figure 2.11). The count of those living with HIV in the county increased steadily from 289 in 2013 to 380 in 2017. Across the county, the percentage of HIV late diagnosis is similar to the England percentage but there is variance across the county. Bassetlaw, Broxtowe, Mansfield and Rushcliffe have higher percentages of HIV late diagnosis. This could be due to the small numbers of people with HIV.

HIV testing coverage in Nottinghamshire dropped significantly from 76.4% in 2013 to 52.0% in 2017. This rate is significantly under the national average (77%).There is significant variance between the districts from a testing coverage in Rushcliffe of 82.2% to Mansfield of 34.8% (table 2.7). This variance is also reflected in the HIV testing uptake and requires further investigation. Testing amongst MSM was consistent across districts in the county and with the England rate. National reporting indicates MSM are not being tested for HIV

every three months as per guidance. Although we do not have figures for Nottinghamshire, increased testing will prevent further transmission of HIV.

Table 2.7: HIV data in Nottinghamshire, breakdown by district (numbers in brackets show actual numbers of HIV cases).

	England	*Nottinghamshire*	*Ashfield*	*Bassetlaw*	*Broxtowe*	*Gedling*	*Mansfield*	*Newark & Sherwood*	*Rushcliffe*
HIV Prevalence per 1,000 people aged 15-59 2017	2.32 (75,444)	0.82 (380)	1.02 (74)*	0.81 (52)	0.77 (50)	0.82 (54)	0.98 (61)	0.66 (44)	0.69 (45)
HIV new diagnosis per 100,000 people aged 15+ 2017	8.7 (3,948)	4.4 (30)	2.9 (3)*	6.2 (6)	7.4 (7)	3.1 (3)	2.2 (2)	2.0 (2)	7.3 (7)
HIV Late diagnosis % 2015-17	41.1 (4,461)	48.3 (43)	22.2 (4)	64.3 (9)	50.0 (5)	40.0 (4)	70.0 (7)	46.2 (6)	57.1 (8)
HIV testing uptake total % 2017	77.0	47.8	44.0	34.7	82.1	78.8	34.8	49.5	82.2
HIV testing uptake MSM % 2017	94.8	94.5	94.3	94.5	95.2	94.3	94.9	92.7	95.7
HIV testing uptake men % 2017	86.8	80.9	77.5	74.0	88.0	86.3	81.1	77.3	86.4
HIV testing uptake women % 2017	69.2	35.0	33.4	24.9	75.7	72.2	23.8	38.5	77.3
HIV testing coverage men % 2017	78.9	77.4	74.1	72.5	83.1	83.1	78.0	74.8	79.6
HIV testing coverage women % 2017	56.8	40.2	37.6	32.1	64.9	61.4	30.0	43.2	67.8
HIV testing coverage total % 2017	65.7	52.0	47.7	42.2	74.1	70.9	41.4	53.3	73.9
HIV testing coverage MSM % 2017	89.0	88.3	86.5	87.9	90.8	93.2	86.9	84.5	87.5

Source: Sexual and Reproductive Profiles. Fingertips.

2.2 Termination of pregnancy and contraception

2.2.1 Abortions

Conceptions that are not planned may continue and/or become wanted, however many end in termination. Unplanned births can contribute to a number of lifestyle and wellbeing difficulties. Open access to a choice of contraception can prevent financial and social costs associated with unplanned births and terminations of pregnancy.

The following are indicators of unmet need and inequalities in access to comprehensive contraception and sexual health advice:

- total abortion rate
- under 25 years repeat abortion rate
- under 25 years abortions after a birth
- over 25 years abortion rates

Women are offered a choice of method of abortion depending on factors such as gestation and access to services. Generally early medical abortions are more efficient and less complex, however women may not present or access services at an early stage or simply choose not to have a medical abortion. Depending on the method and complexity of the procedure a woman may be treated within NHS services or by a commissioned independent provider such as BPAS.

In 2017, a total of 189,859 abortions were performed in England with 2,057 carried out within Nottinghamshire County CCGs (table 2.8).

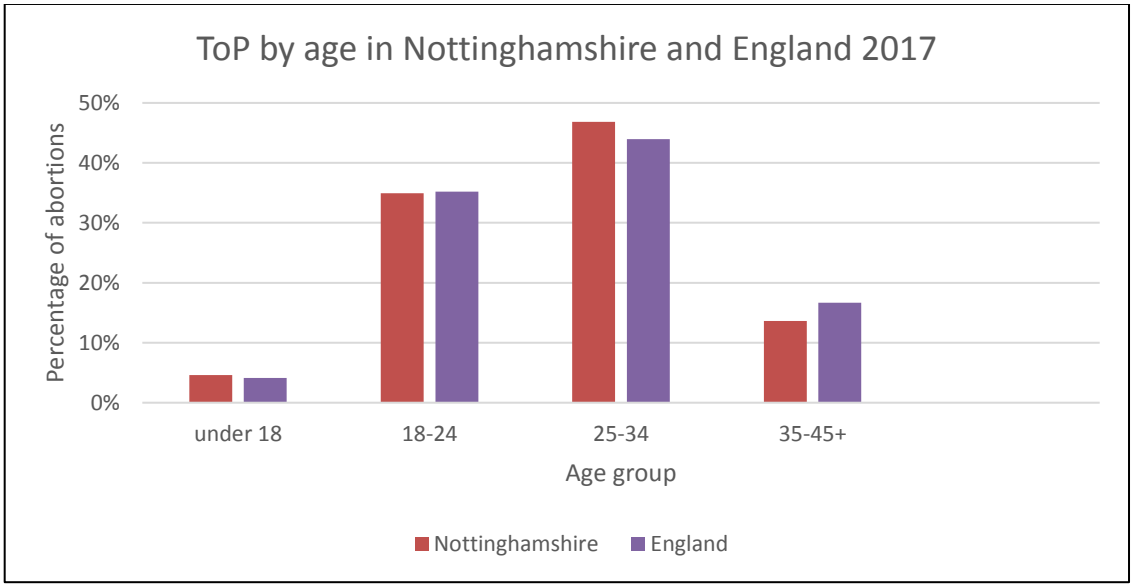
Table 2.8: Nottinghamshire County Abortions by CCG 2015

CCG	Total no of abortions 2015	Total no of abortions 2016	Total no of abortions 2017
Nottinghamshire	1,844	1,965	2,057
NHS Bassetlaw CCG	218	238	273
NHS Mansfield and Ashfield CCG	518	619	594
NHS Newark and Sherwood CCG	263	272	299
NHS Nottingham North and East CCG	414	387	444
NHS Nottingham West CCG	246	236	242
NHS Rushcliffe CCG	185	213	205

Source: Department of Health and Social Care, 2017[24]

In Nottinghamshire in 2017, 5% of abortions were to women under the age of 18. This figure is similar to the England average of 4.1% (figure 2.2). Other age bands are broadly similar to the England averages.

Figure 2.2: Crude abortion rate per 1,000 women, 2017.

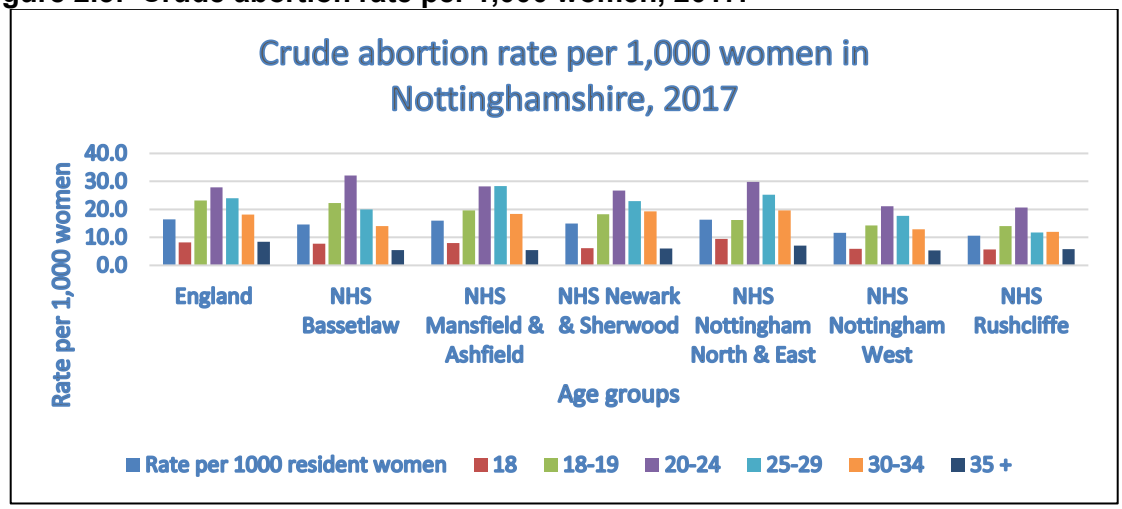


Source: Department of Health and Social Care - Abortion Statistics England and Wales 2017

Figure 2.3 shows crude abortion rates for each Nottinghamshire CCG footprint along with the county and national rates by age. Due to small numbers, these rates must be treated with caution. Generally, although lower than the national rate across the board, abortions rates were highest in the 20-24 year age group in all CCGs.

When using crude rates, the rate of terminations in 2017, Nottinghamshire North & East CCG (9.5) was the only CCG above the England average for under 18 year old abortions and Rushcliffe CCG (5.7) and the lowest rate. Bassetlaw CCG had the highest rate with the 20-24 age category and Mansfield and Ashfield CCG had the highest rate in the 25-29 age category.

Figure 2.3: Crude abortion rate per 1,000 women, 2017.



Source: Department of Health and Social Care - Abortion Statistics England and Wales 2017

Abortion statistics for Nottinghamshire in 2017 show that the majority of abortions are carried out by the independent sector. In 2017, 90.5% of abortions carried out in Nottinghamshire were carried out by the independent (although still funded by NHS) sector compared to 72.1% across England.

The majority of procedures across the county were conducted within 10 weeks of gestation with a significant proportion of the remainder being completed before 12 weeks (table 2.9). In 2017, there was an increase to 79.2% from the 2015 proportion of 70% of all abortions being conducted under 10 weeks, this was above the England figure (76.6%). In 2017, across the county 36.2% of abortions of all ages were repeat abortions compared to 38.8% across England. There were higher levels of repeat abortions in the Nottingham West CCG.

Table 2.9: Number of abortions, procedures and report abortions across Nottinghamshire

		Method of abortion		Percentages			Numbers	
	Total number of abortions	Medical (%)	Surgical (%)	Repeat abortion all ages	Repeat abortions for women aged under 25	Repeat abortions for women aged 25 and over	Number of abortions for women aged under 19	Number of repeat abortions for women aged under 19
England	181,281	64.6	35.4	38.8	26.7	46.7	14,018	1,359
Nottinghamshire	2,057	*73.3*	*26.7*	*36.2*	*22.2*	*45.4*	161	12
NHS Bassetlaw	273	79.1	20.9	29.3	16.4	41.7	21	0
NHS Mansfield & Ashfield	594	76.9	23.1	37.2	22.8	45.9	43	5
NHS Newark & Sherwood	299	74.2	25.8	36.5	26.9	42.8	25	4
NHS Nottingham North & East	444	66.9	33.1	39.2	22.1	49.1	33	0
NHS Nottingham West	242	69.4	30.6	43.8	26.1	54.7	20	..
NHS Rushcliffe	205	72.2	27.8	26.3	19.3	31.6	19	0

Source: Department of Health - Abortion Statistics England and Wales 2017

2.2.2 Contraception

The government and the Faculty of Sexual and Reproductive Healthcare (FSRH) both highlight the importance of knowledge, access and choice for all women and men to all methods of contraception to help avoid unplanned pregnancies and planning families. Contraception is a highly cost-effective intervention, which plays an important public health role in improving the lives of individuals, families and communities.[25]

A number of different contraceptive options are available, including short acting method such as pills, patches and rings, long acting reversible contraceptives (LARC, these include the implant, injectables and intrauterine devices), barrier methods such as male and female condoms and diaphragms, and emergency contraception.

The rate of LARCS (excluding injections) prescribed in GP and sexual health services in Nottinghamshire was 55.6 per 1000 in 2016 this was a significant increase since 2014 (52.5/100,000). Nottinghamshire was significantly higher than the England rate of 46.4 per 100,000.

In 2017 ISHS prescribed LARC was much higher than GP prescribed LARC in Bassetlaw, Mansfield and Ashfield, Newark and Sherwood CCG areas with ISHS prescribing lower in Nottingham West CCG and Rushcliffe CCG (table 2.10).

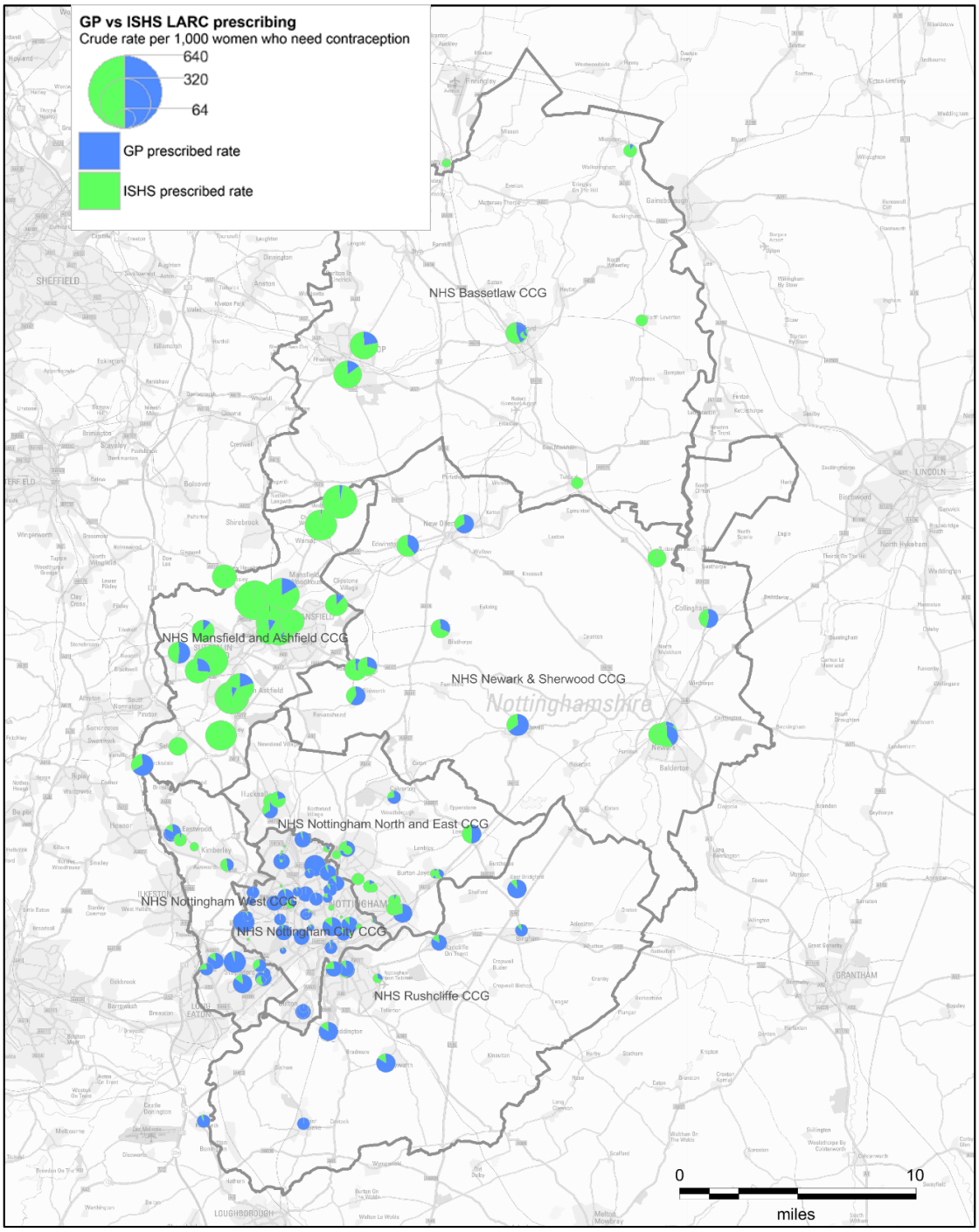
Table 2.10: ISHS vs GP LARC prescribing across Provider areas

Population	Females needing contraception	GP prescribed LARC	ISHS prescribed LARC	All LARC
Nottinghamshire	100,196	2,891	6,375	9,266
NHS Bassetlaw CCG	13,886	324	1,225	1,549
NHS Mansfield & Ashfield CCG	24,295	422	3,363	3,785
NHS Newark & Sherwood CCG	15,976	580	968	1,548
NHS Nottinghamshire North and East CCG	18,904	347	539	886
NHS Nottingham West CCG	11,763	509	125	634
NHS Rushcliffe CCG	15,372	709	155	864

Source: Sexual and Reproductive Health Activity Dataset (SRHAD) – NHS Digital

The map in figure 2.4 illustrates proportion and rate of LARCS provided by GP and ISHS Services in 2017 for women who require contraception. It can be seen that women in Bassetlaw and Mid Nottinghamshire rely on ISHS services for LARCs than those in the west and south of Nottinghamshire.

Figure 2.4: Proportion and rate of LARCS provided by GP and ISHS Services



Source: Sexual and Reproductive Health Activity Dataset (SRHAD) – NHS Digital

GPs have the option to provide LARC under a Locally Commissioned Public Health Service (LCPHS) contract with the local authority. Table 2.11 shows the number of GPs providing this service in Nottinghamshire as of August 2018. It appears that there is lower GP provision of LARC services in Mansfield and Ashfield and Newark and Sherwood CCG areas. This data is slightly skewed as it shows GPs that offer intrauterine contraceptive devices (IUCD) only, contraceptive implant only or both. Service users may therefore not be able to access both options because their GP may not offer both contraceptive options. This

may explain why people may attend ISHS more in this areas but further analysis is required. Some small scale qualitative research has been carried in with service users into their use of ISHS LARC services. More detail about this research can be found in section 7.

Table 2.11: Total Number of GP Practices in NCC Provider area providing at least one LARC service under LCPHS (as of August 2018)

CCG	Total number of GP Practices	Number providing LARCS as at August 2018 (LCPHS Data)	% Number providing LARCS as at August 2018 (LCPHS Data)
Mansfield and Ashfield CCG	28	19	68%
Newark and Sherwood CCG	13	10	77%
Bassetlaw CCG	9	8	88%
Nottinghamshire North and East N&E CCG	19	9	47%
Nottingham West CCG	12	12	100%
Rushcliffe CCG	12	11	92%
Total Number of Practices	93	69	79%

Source: LCPHS local data

2.2.3 Emergency Hormone Contraception (EHC)

EHC can prevent pregnancy after unprotected sex or if the contraception people have been using fails. EHC can be provided via ISHS, GPs and some pharmacies free of charge. In 2017/18 there were 84 active pharmacies (103 accredited) within Nottinghamshire that provided emergency hormonal contraception (EHC). Contraceptive and Sexual Health Services also provide EHC (refer to Section 4).

In 2017/18, data from pharmacy EHC services showed the key reasons reported for use of EHC were failed condom (38%), no contraception (30%) and missed oral contraceptive pill (12%)[26]. The majority of service users were aged between 20-29 years but there was also a significant amount of service users over 30 years old. This indicates an ongoing need for effective regular contraceptive methods over the reproductive years.

2.3 Teenage Conceptions

This topic is covered under a separate JSNA chapter on Teenage Pregnancy.

2.4 Local understanding of risk groups

Sexual health is not equally distributed within the population. Strong links exist between deprivation and sexually transmitted infections (STIs), teenage conceptions and abortions, with the highest burden borne by women, men who have sex with men (MSM), members of the Trans community, teenagers, young adults and black and minority ethnic groups. Similarly HIV infection in the UK disproportionately affects MSM and Black African

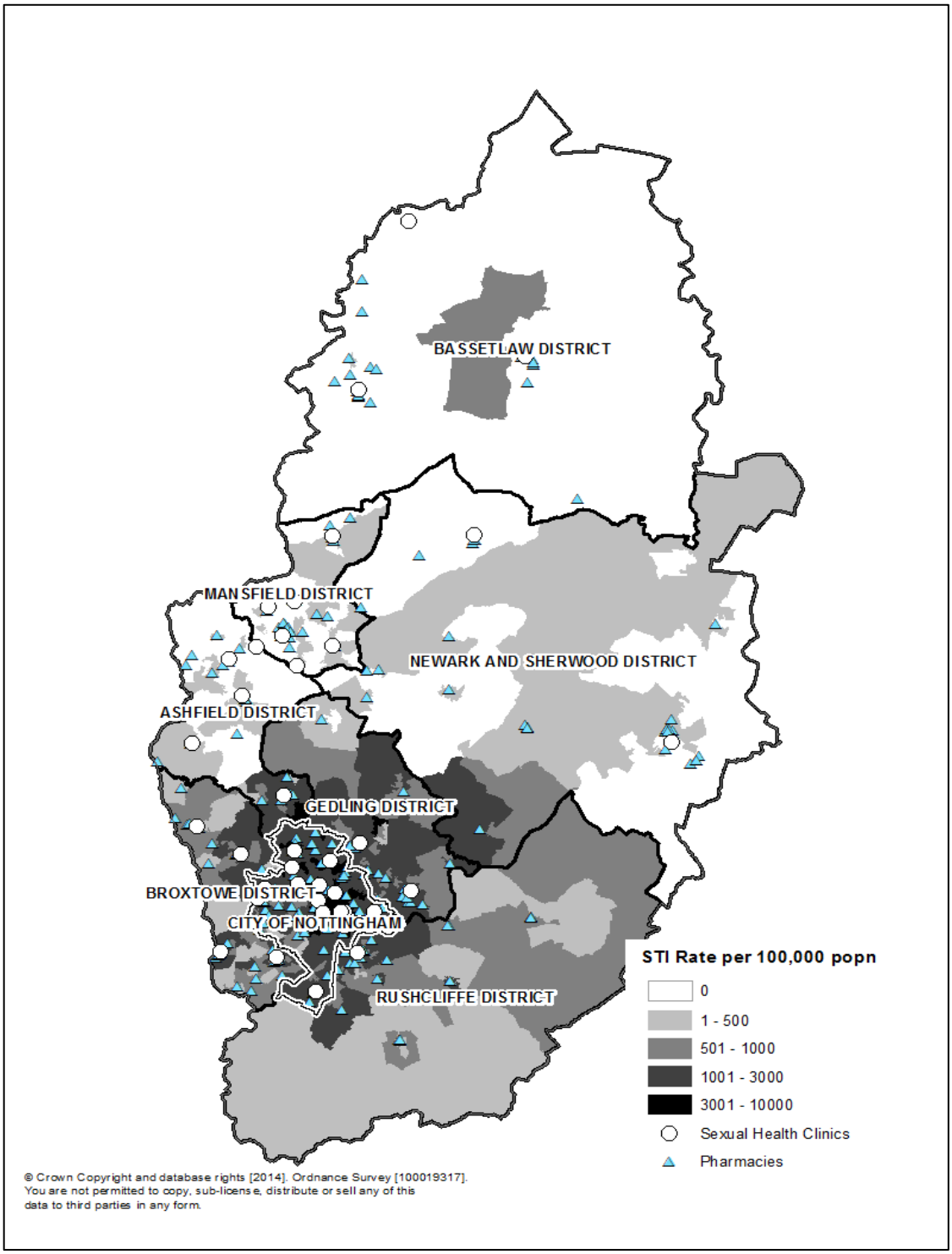
populations. Some groups at higher risk of poor sexual health face stigma and discrimination, which can influence their ability to access services.

2.4.1 Socio-economic deprivation

There is a strong relationship between socio-economic deprivation (SED) between rates of new STIs and the index of multiple deprivation across England. Higher rates of diagnosis broadly follow patterns of deprivation within the county.

Figure 2.5 shows STI rate per 100,000 population by LSOA, it also provides an indication of SH clinics and pharmacies where services could be accessed. This is not by any means a full picture of all services available as there are a number of outreach clinics running in areas where they can be more accessible for higher risk groups.

Figure 2.5: Rate per 100,000 population of all new STIs diagnosed in GUM and non-GUM services by LSOA of residence within Nottinghamshire Upper Tier Local Authority, all ages, 2017.

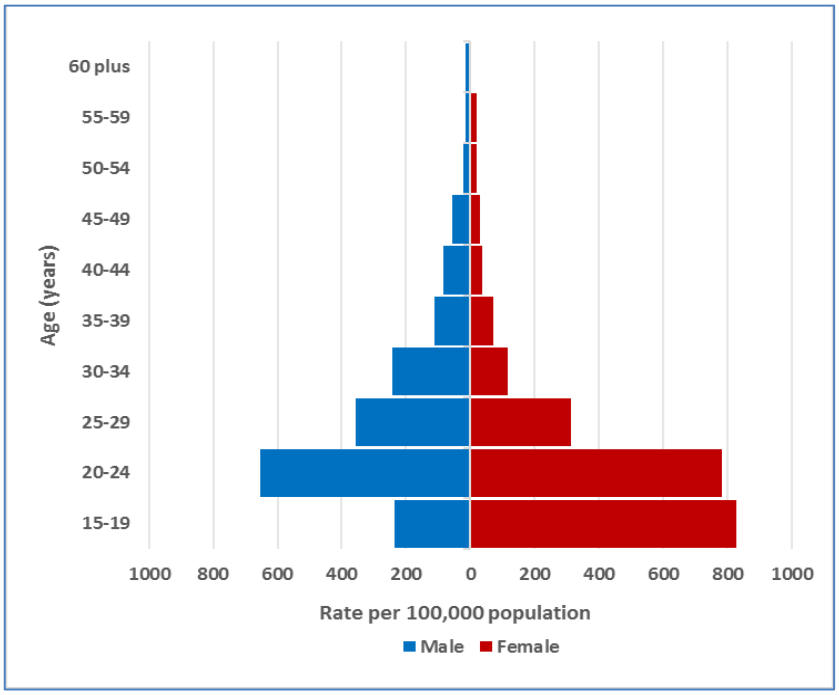


Source: Nottinghamshire LASER report

2.4.2 Age and Gender

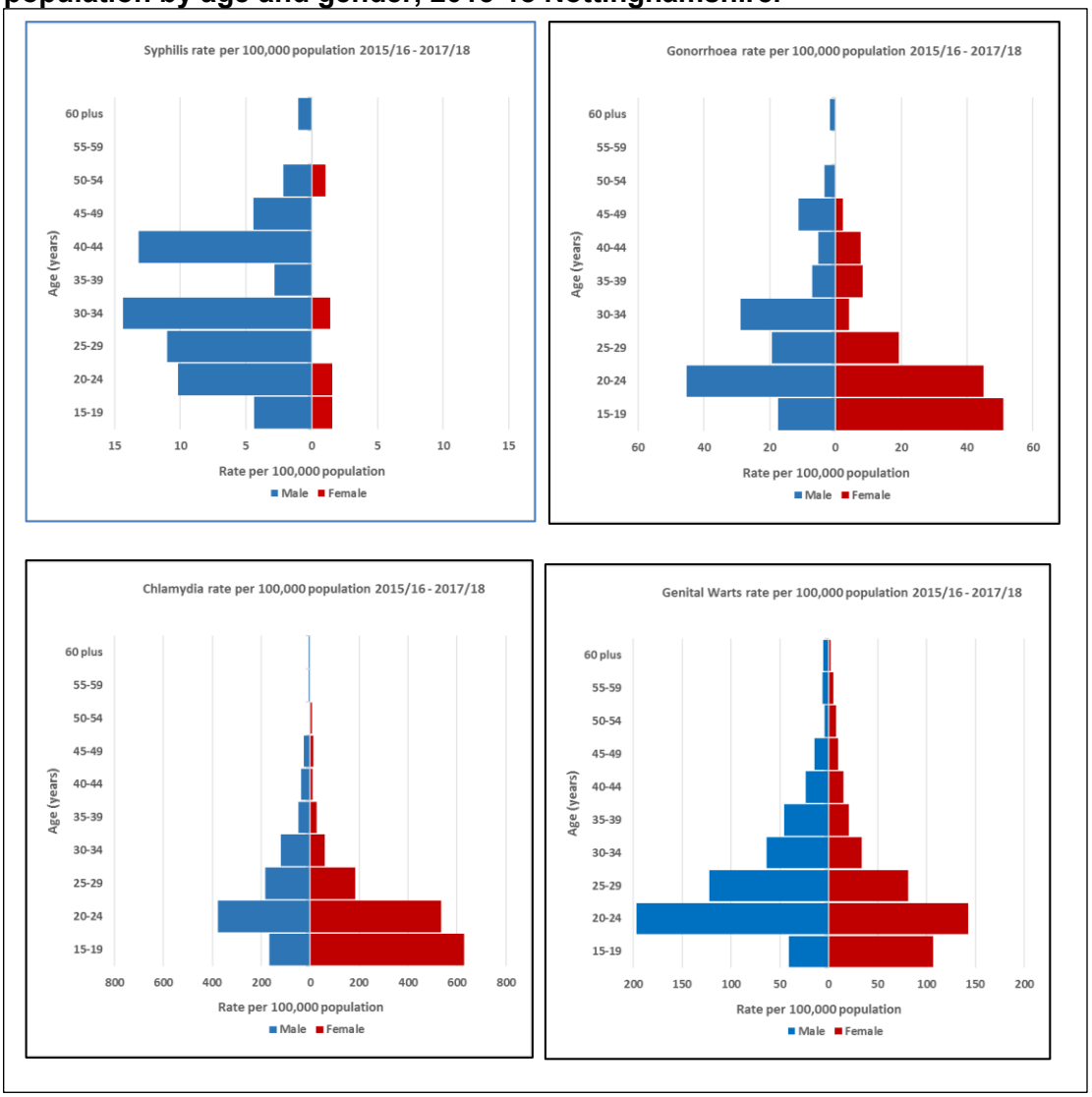
In the three year period 2015-18 (financial years) STIs occurred more amongst the 20-24 year olds than any other age group in both men and women. However, in the younger (15-19) age group, STI diagnosis in women was far more common. As age increased beyond 24 years, the level of STIs diagnosed in both sexes decreased (figure 2.6). This pattern is broadly in line with national age distributions, where peak rates of diagnoses are in the 20 to 24 year age group. However, when broken down by type of STI, variations can be seen by age and gender (figure 2.7). In the three years between 2015 and 2018, syphilis was far more prevalent in males in all age groups than females. With Gonorrhoea, the risk in females aged 15-19 years is higher but then this shifts in the 30-34 year age group where the prevalence in males is higher. Chlamydia remains more prevalent in females of all ages than males while genital warts in females aged 15-19 years is far more prevalent than males and then becomes more equally distributed across both genders after that.

Figure 2.6: All STIs per 100,000 population by age and gender, 2015-18 Nottinghamshire.



Source: GUMCAD dataset

Figure 2.7: Syphilis, Gonorrhoea, Chlamydia and genital warts per 100,000 population by age and gender, 2015-18 Nottinghamshire.

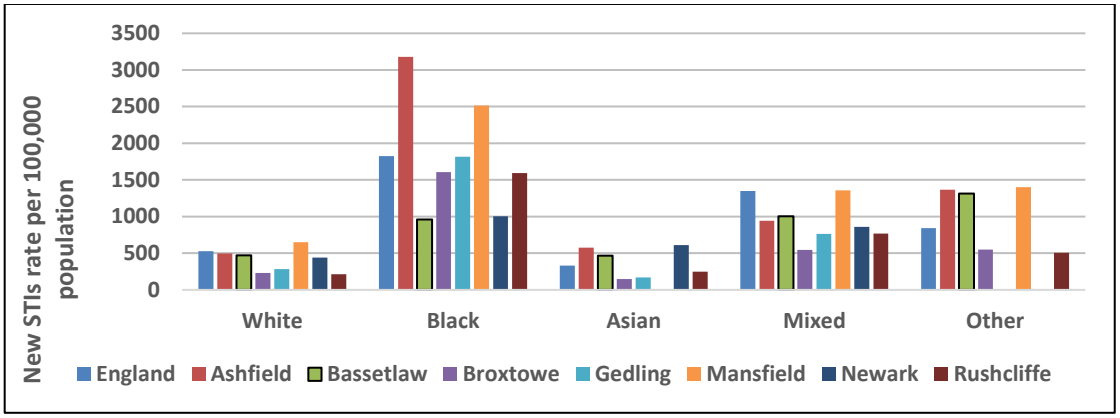


Source: GUMCAD dataset

2.4.3 Ethnicity

The quality and completeness of information on service provision and outcomes by ethnic group is variable, between different sexual health services and over time. Therefore, current data does not provide a complete picture of the burden of STIs within ethnic groups. However, in 2016, STIs were more common in Black (African and Caribbean) than any other ethnic group and the lowest in Asians (figure 2.8). Targeting of districts such as Ashfield and Mansfield which have a higher rate of STIs amongst black people.

Figure 2.8: Rates per 100,000 population of new STIs by ethnic group (SHS diagnoses only): 2016.



Source: PHE LASER reports 2016

2.4.4 Sexual Orientation

The number of all STI diagnoses has increased by gender and sexual orientation. There has been an increased number of STIs attributed to MSM. However, there are generally high number of 'not stated' recorded. This makes the data somewhat unreliable, although the situation is improving. Nationally, new STIs has been increasing. This increasing trend may be due to better detection, an increase in the number of condomless sexual interactions, the use of HIV sero-adaptive behaviours, group sex facilitated by geosocial networking applications, and 'chemsex'[27].

Table 2.12: STI diagnosis by sexual orientation (females and males) Nottinghamshire

		Chlamydia			Gonorrhoea			Herpes			Syphilis			Warts		
Gender	**Sexual Orientation**	**2015**	**2016**	**2017**	**2015**	**2016**	**2017**	**2015**	**2016**	**2017**	**2015**	**2016**	**2017**	**2015**	**2016**	**2017**
Male	Heterosexual	547	780	770	85	81	89	86	105	110	2	3	7	314	392	401
	Gay	40	80	104	90	72	90	11	7	10	19	24	22	24	13	17
	Bisexual	4	15	5	9	5	3	0	2	2	1	5	3	1	7	3
	Not stated	151	33	34	44	5	6	42	6	4	7	0	2	153	14	17
	Total	742	908	913	228	163	188	139	120	126	29	32	34	492	426	438
Female	Heterosexual	666	1004	1131	104	106	132	186	262	267	1	3	3	276	332	271
	Gay	2	4	0	1	0	0	5	0	1	0	1	1	2	4	1
	Bisexual	3	11	4	0	2	1	0	2	0	0	0	0	2	2	4
	Not stated	260	55	30	38	5	7	103	9	5	1	0	0	124	11	10
	Total	931	1074	143	143	113	140	294	273	273	2	4	4		349	286
Total	Heterosexual	1213	1784	1901	189	187	221	272	367	377	3	6	10	590	724	672
	Gay	42	84	104	91	72	90	16	7	11	19	25	23	26	17	18
	Bisexual	7	26	9	9	7	4	0	4	2	1	5	3	3	9	7
	Not stated	413	88	64	83	10	13	146	15	9	8	0	2	277	25	27
	Total	1675	1982	2078	372	276	328	434	393	399	31	36	38	896	775	724

Source: GUMCAD dataset

2.5 Sexual Abuse and Child Sexual Exploitation

The topic of sexual abuse and sexual violence is covered in detail under a separate JSNA chapter on Sexual Abuse and Child Sexual Exploitation is covered in Section 5 of the Children and Young People JSNA 2013.

3. Targets and performance

3.1 Public Health Outcomes Framework Indicators

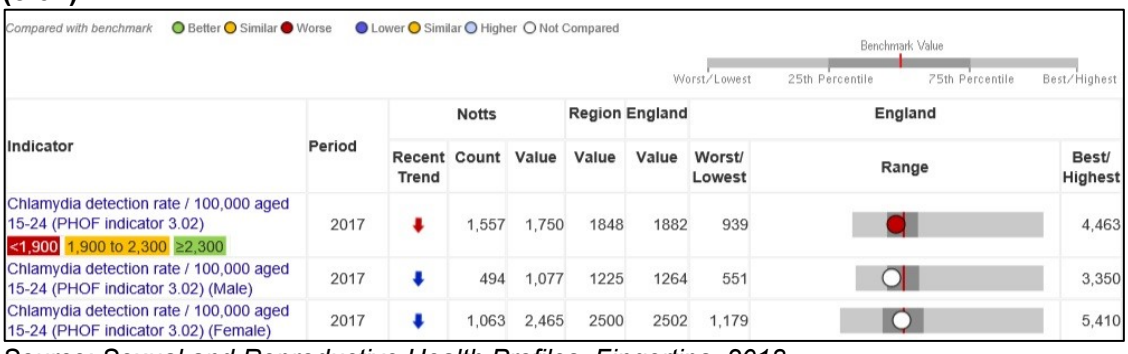
The importance of improving sexual health is acknowledged by the inclusion of three indicators in the Public Health Outcomes Framework (PHOF). These outline key ambitions for improving sexual health outcomes across the sexual health system. The indicators are:

- Achieve a diagnostic rate of 2,300 per 100,000 for chlamydia diagnoses (15–24-year-olds).
- A reduction in people presenting with HIV at a late stage of infection.
- A reduction in under-18 conceptions.

3.1.1 Crude rate of chlamydia detection per 100,000 young adults aged 15-24 based on their area of residence (3.02)

The chlamydia detection rate amongst under 25 year olds is a measure of chlamydia control activity. PHE recommends achieving a detection rate of at least 2,300/100,000 population aged 15-24. The county of Nottinghamshire underperformed at a rate of 1,750/100,000 in 2017, and was surpassed by regional and national rates (1,848 & 1,882 per 100,000 respectively). This is an increase in detection rate (1,576/100,000) from year previous. 2017 detection rates in females far exceeded males (2465 & 1077 per 100,000 respectively) (figure 3.1).

Figure 3.1: People presenting with HIV at late stage of infection – the percentage of adults (aged 15+) newly diagnosed with HIV with a CD4 count <350 cells per mm3 (3.04)



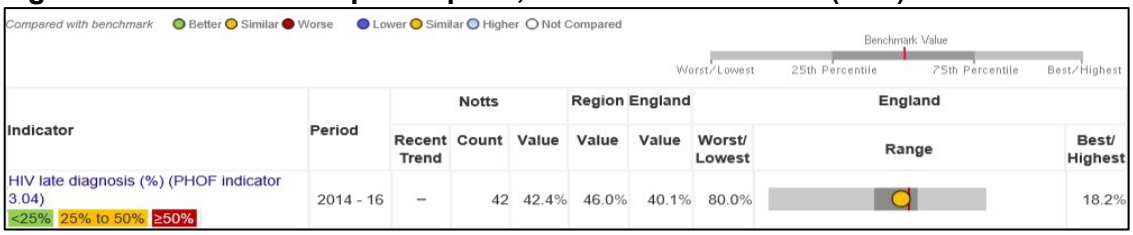
Indicator	Period	Notts			Region England	England	England		
		Recent Trend	Count	Value	Value	Value	Worst/ Lowest	Range	Best/ Highest
Chlamydia detection rate / 100,000 aged 15-24 (PHOF indicator 3.02) <1,900 1,900 to 2,300 ≥2,300	2017	↓	1,557	1,750	1848	1882	939		4,463
Chlamydia detection rate / 100,000 aged 15-24 (PHOF indicator 3.02) (Male)	2017	↓	494	1,077	1225	1264	551		3,350
Chlamydia detection rate / 100,000 aged 15-24 (PHOF indicator 3.02) (Female)	2017	↓	1,063	2,465	2500	2502	1,179		5,410

Source: Sexual and Reproductive Health Profiles, Fingertips, 2018

3.1.2 A reduction in people presenting with HIV at a late stage of infection

Late diagnosis is the most important predictor of morbidity and mortality among those with HIV infection and is essential to evaluating success of expanded HIV testing. This indicator directly measures late diagnoses measuring percentage of adults, aged 15+, newly diagnosed with HIV with a CD4 cell count <350/mm^2. 42.4% of those diagnosed in Nottinghamshire County between 2014 and 2016 were diagnosed late. This is similar to the national figure (40.1%). This performance is better than that achieved in previous reporting period (50.8%, 2011-2013) (figure 3.2).

Figure 3.2: Rate of conceptions per 1,000 females under 18 (2.04)



Indicator	Period	Notts			Region England	England	England		
		Recent Trend	Count	Value	Value	Value	Worst/ Lowest	Range	Best/ Highest
HIV late diagnosis (%) (PHOF indicator 3.04) <25% 25% to 50% ≥50%	2014 - 16	–	42	42.4%	46.0%	40.1%	80.0%		18.2%

Source: Sexual and Reproductive Health Profiles, Fingertips, 2018

3.1.3 A reduction in under-18 conceptions

Most teenage pregnancies are unplanned and avoidable with around half ending in abortion. They are associated with high risk sexual health behavioural such as STIs. The conception rate in Nottinghamshire (18.3/1,000) between 2014-16 in 15-17 year olds is under regional and national rates (19.4 & 18.8 per 1,000 respectively). This is in contrast to conception rate (3.5/1,000) in 13-15 year olds where the rate surpasses that of regional and national rates (3.3 & 3 per 1,000 respectively) (figure 3.3). This is an indication of further risky sexual behaviour and suggests a need for good quality RSE in schools. Targets and performance for teenage conceptions are explored further in the JSNA chapter on Teenage Pregnancy

3.2 Sexual and Reproductive Health Profiles

The Sexual and Reproductive Health Profiles have been developed by Public Health England (PHE) to support local authorities, public health leads and other interested parties to monitor the sexual and reproductive health of their population and the contribution of local public health related systems.

The profiles provide detailed publically available information on sexual and reproductive health outcomes, which has been used in the development of this needs assessment. The Sexual and Reproductive Health Profiles can be found here.

3.3 Local Service Key Performance Indicators

All commissioned sexual health service providers within Nottinghamshire have substantive, detailed activity and performance reporting embedded within existing contracts. Monitoring includes quality, activity and productivity metrics which are intended to achieve key outcomes:

- Achieve high levels of service user satisfaction
- Provide positive test results within 10 working days
- Timely treatment for positive cases
- Increase offer and uptake of HIV testing.
- Increase partner notification for diagnosed STIs.
- Increase offer and uptake of chlamydia screening
- Increase number and percentage of LARCs fitted as a proportion of all contraceptives
- Reduce teenage conceptions
- Increase provision of sexual and reproductive education.
- Increase availability and effective use of contraceptives
- Improve access to emergency contraception

Full details of performance metrics and targets are available in the individual service specifications. Regular monthly, quarterly and annual reporting mechanisms for provider performance are in place and can be found in Public Health performance reports for the Adult Social Care and Public Health Committee reports.

4. Current activity, service provision and assets

Under the provisions of the Health and Social Care Act (2012), from April 2013 Local Authorities, Clinical Commissioning Groups (CCGs) and NHS England each have a legal responsibility for commissioning a range of sexual health services. Appendix 3 provides a summary of organisational commissioning responsibility.

Nottinghamshire County Council has a statutory responsibility to provide, or secure the provision of, open access sexual health services for its population including:

- Preventing the spread of sexually transmitted infections (STIs)
- Treating, testing and caring for people with STIs and partner notification
- Contraceptive services including advice on preventing unintended pregnancy
- Sexual health promotion

As part of this duty, Nottinghamshire County Council commissions a range of sexual health services.

4.1 Local Authority Commissioned Sexual Health Services

Since April 2016, there are three Integrated Sexual Health Services (ISHS) providing sexual and reproductive healthcare in community and hospital settings across Nottinghamshire. TriHealth Bassetlaw provides services in Bassetlaw district, My Sexual Health provide services across Mansfield, Ashfield and Newark and Sherwood districts, Nottingham University Hospital NHS Trust provides services across Rushcliffe, Broxtowe, Gedling districts as well as Nottingham City (appendix 4).

The ISHS provide open access for contraception, STI testing and treatment services. The service aims to provide easy access to services on one site, usually under the care of one health professional. Services are located within accessible locations, offer extended opening hours and be delivered in a way that are accessible to people disproportionately affected by sexual ill health. The service is provided by be healthcare professionals who are trained in the provision of both contraception and management of STIs (dual trained).

4.1.1 Clinics

The service provides a ranges of level 1, 2, and 3 services and operates out of:

- Hub clinics
- Spoke clinics
- A range of community based outreach clinics to meet the needs of higher risk groups.

Please refer to appendix 5 for a detailed illustration of the service model. Please visit the service websites as provided above for details of the full range of clinics and how to access them.

In 2017/18 there were a total of 47,728 attendances in sexual health clinics across Nottinghamshire, this was a slight decrease from 2016/17. The number of appointments could include residents outside of Nottinghamshire attending Nottinghamshire based clinics. More detailed and accurate data of patient flow is needed to fully understand the demands and pressures on local clinics as well as an understanding of the types of interventions people are attending for.

Table 3.1: Number of appointments per sexual health provider, 2016/17 – 2017/18

	Total number of filled appointments	
Service provider	**2016/17**	**2017/18**
TriHealth (DBH)	9263	8130
My Sexual Health (SFHT)	23543	23381
Nottingham University Trust (NUH)	15387	16217
Total appointments	**48193**	**47728**

Source: service provider performance data.



4.1.2 Health Promotion

The ISHS provides a health promotion service which includes:

- Delivery of brief intervention that promotes the ethos that, 'it's not being tested that keeps you safe, it's practising safer sex that keeps you safe'.
- The provision and advertising of free condoms and lubricant.
- Targeted health promotion including effective STI & HIV prevention activity with vulnerable groups.
- Participation in the delivery of local multi-agency training for the young people's workforce in partnership with local sexual health promotion practitioners.
- A programme of health promotion training for relevant staff in organisations delivering.

Between April 2017 and March 2018, approximately 284 early intervention sessions were delivered across Nottinghamshire.

4.1.3 Counselling

The service provides psycho-sexual counselling in the form of one-to-one support for individuals requiring advice and support about their sexual well-being. The aim is to reduce risk taking sexual behaviour, manage sexual and gender identity enabling them to make safer, informed choices and improve psychological wellbeing.

4.1.4 Training

Under the ISHS, providers deliver training to equip practitioners and staff from other providers (including primary care services) with the competencies to deliver sexual health services across Nottinghamshire. Training is also available to the voluntary and community sector (VCS) and will include training relating to safeguarding, child protection and child sexual exploitation (CSE).

4.2 Locally Commissioned Public Health Services (LCPHS)

General Practitioners and community pharmacies are important providers of demand led community based primary care services. LCPHS enable front line providers to help reduce unplanned pregnancy. LCPHS complement the ISHS by ensuring easy access within local communities with the additional benefit of building on well-established and trusted relationships between citizens and their local GP and community pharmacists. However not all GPs or pharmacies provide LCPHs services.

4.2.1 LCPHS in GP Practices

- Fitting & Removal of Intrauterine Contraceptive Device (IUCD) – for both registered and non-registered patients

- Fitting & Removal of Sub-Dermal Implants (SDI) for Contraceptive Purposes – for both registered and non-registered patients

4.2.2 LCPHS in Pharmacies

- Emergency hormonal contraception (EHC)
- Condom pick up points

4.3 HIV Home Sampling

Preventx market and provide a HIV remote self-sampling service to the most at risk adult sexually active individuals aged 16 years and over. The service targets two high risk groups, MSM and black African populations (and other black communities at increased risk of HIV). HIV home sampling kits are ordered via the Preventx Test. HIV website and posted back once samples have been collected by the service user.

In the calendar year 2017, 447 self-sampling kits were ordered online, 68% of these were returned this was a slight decrease from the previous year when 470 kits were ordered with a return rate of 59%. 0.7% of tests were reactive and referred for onward testing.

4.4 Online Chlamydia Testing

Preventx also provides an online service where young people aged 15-24 years old can access to request a 'chlamydia screening self-testing kit'. Kits are delivered in the post to the user and then returned to the provider who undertakes all appropriate diagnostic testing and reports the findings back to the user as well as notifying the results to ISHS providers for treatment and contact tracing.

4.5 C-card Condom Distribution Scheme

Sexual health advice, support and condom distribution services for young people to increase the availability, accessibility and acceptability of condoms to young people aged 13-24 years, to risk assess young people into mainstream sexual health services and increase the number of workers within the community who have sexual health knowledge, skills and understanding. There are multiple 'registration' and 'pick up' sites across Nottinghamshire linked to wards with high rates of teenage pregnancy which are accessible to young people. This also provides a safeguarding opportunity for young people aged between 13 and 18 when they register, as they have to re-register every year until 18.

4.6 School Health

The Tackling Emerging Threats to Children Team in partnership with the Schools' Health Hub Coordinators are commissioned by Public Health to support schools with the safeguarding and health and well-being agendas and focus on developing best practice in response to new and existing "threats". The team's remit includes a wide range of sensitive

issues including: child sexual exploitation, female genital mutilation, forced marriage and honour based abuse, online safety and sexual health.

The Healthy Families Team (HFT) has been commissioned to provide to provide regular sexual health drop in clinics in secondary schools across Nottinghamshire, focusing on teenage pregnancy hotspots. Despite best efforts to encourage schools to take up this offer, few schools have allowed this drop in sessions.

4.7 Termination of Pregnancy

Women in Nottinghamshire County have access to a comprehensive TOP service delivered by BPAS. This includes access to a full pre-assessment (including scan), onward referral to a choice of provider for either a medical or surgical TOP and follow up counselling sessions.

4.8 Sexual Assault Referral Centre (SARC)

There are two SARCs, one for children and young people aged 0-17 years and The Topaz Centre assisting adults. Paediatric SARC has been set up for anybody under the age of 18, who has experienced sexual abuse. The Nottinghamshire branch of the East Midland's Children and Young People's Sexual Assault Service (EMCYPSAS) is based in the Queens Medical Centre. This specialist provision is commissioned to attend to the medical care and holistic support needs of children and young people, as well as young adults up to the age of 24 who have a learning disability.

These services provide a specialist medical and forensic examination resource for victims of alleged rape and sexual assault/abuse, accessible twenty four hours a day either in person or by phone. The services are available to all, regardless of whether the victim chooses to engage with the Criminal Justice Process.

4.9 Assets

4.9.1 LGBT+ Service Nottinghamshire

Provides information and support for LGBTQ+ (lesbian, gay, bisexual, Trans, Questioning and other groups) people by phone, text, e-mail, letter or Instant Messaging. The information provided is free and includes the following areas: Social groups: groups relating to various sports; book groups; writers' groups; walking groups; LGBT history; youth groups; Religious groups, Trans groups; women's groups; general social groups. The service also signposts to sexual health and counselling services.

5. Evidence of what works

Since April 2013 responsibilities for commissioning comprehensive sexual health, reproductive health and HIV services have been divided across Local Authorities, Clinical Commissioning Groups (CCGs) and NHS England (NHSE) (See Appendix 3).

In order to maintain and improve sexual health the Department of Health issued 'A Framework for Sexual Health Improvement in England' (2013) which sets out the core elements that will improve sexual health outcomes. These are as follows:

- accurate, high-quality and timely information that helps people to make informed decisions about relationships, sex and sexual health
- preventative interventions that build personal resilience and self-esteem and promote healthy choices
- rapid access to confidential, open-access, integrated sexual health services in a range of settings, accessible at convenient times
- early, accurate and effective diagnosis and treatment of STIs, including HIV, combine with the notification of partners who may be at risk
- joined-up provision that enables seamless patient journeys across a range of sexual health and other services

The evidence presented within this section is not exhaustive but seeks to reflect some of the key areas identified within the most recent national strategic documents. The evidence is divided into sexual health promotion, prevention and treatment evidence.

5.1 Guidelines

Listed in Figure 5.1 is the evidence of what works mapped against sexual health promotion, prevention of poor sexual health outcomes and sexual health treatment. The evidence includes;

- NICE Public Health Evidence
- NICE Quality Standards (QS)
- NICE Clinical Guidelines (CG)
- Strategies and policies
-

Figure 5.1 Sexual Health standards and guidelines

Evidence of what works	Sexual Health Promotion	Sexual Health Prevention	Sexual Health Treatment
Public Health Evidence			
Sexually transmitted infections: condom distribution schemes (NG68) 2017	/	/	
One to one interventions to reduce the transmission of sexually transmitted infections (STIs) including HIV, and to reduce the rate of under 18 conceptions, especially among vulnerable and at risk groups (PH3) 2007		/	
HIV testing: increasing uptake among people who may have undiagnosed HIV (NG60) 2016		/	

Hepatitis B and C: Hepatitis B and C testing: people at risk of infection. (PH 43) March		/	
Behaviour change: individual approaches. (PH49) 2014	/	/	
Contraceptive services with a focus on young people up to the age of 25 (PH51) 2014		/	
Harmful sexual behaviour among children and young people (NG55) 2016		/	/
Hepatitis B and C: Ways to promote and offer testing to people at increased risk of infection (PH43) 2013	/	/	
Domestic violence & abuse, how services can response effectively (PH50) 2014	/	/	/
NICE Quality Standards			
Sexual Health (In development, expected February 2019)			/
Contraception (QS129) 2016		/	
HIV testing: encouraging uptake (QS157) 2017		/	
Guidance for Ectopic Pregnancy and Miscarriage (QS 69) 2016			/
NICE Clinical Guidelines			
Long−acting reversible contraception (CG30) 2014		/	
Heavy Menstrual Bleeding: assessment and management, (CG88) 2014			/
Termination of Pregnancy (In development – expected September 2019)			/
Clinical Guidelines (See Appendix 6)			
Faculty of Sexual and Reproductive Healthcare	/	/	/
The British Association for Sexual Health and HIV	/	/	/
British HIV Association	/	/	/
Strategies and Polices			
A Framework for Sexual Health Improvement in England (2013)	/	/	/
Integrated Sexual Health Services: A suggested national service specification (2018)	/	/	/
Making it work: A guide to whole system commissioning for sexual health, reproductive health and HIV (2015)	/	/	/
Sexual Health, Reproductive Health and HIV: A Review of Commissioning (2017)	/	/	/
Health promotion for sexual and reproductive health and HIV: Strategic action plan, 2016 to 2019 (2015)	/	/	

5.2 Sexual Health Promotion

The responsibility for promoting good sexual health lies across many different organisations, including NHS services, primary care, education and other Local Authority commissioned services. Health promotion activity can vary from intensive 1:1 or group interventions to universal health promotion marketing campaigns.

5.2.1 Social marketing

Sexual health campaigns aim to convey simple tailored messages to mass but targeted audiences. Although there is promising evidence of the effectiveness of social marketing, especially social media, research is limited[28]. Consideration needs to be taken into account of the messages being promoted and the reach of the messages.

5.2.2 Relationship and Sex Education

There is international evidence that suggests relationships and sex education can have a positive impact on young people's knowledge and attitudes, delay sexual activity and/or reduce pregnancy rates.[29] However there are few high-quality studies on how RSE affects prevalence of sexually transmitted infections (STIs). Available evidence suggests that RSE does not reduce STI rates among young people but can increase young people's knowledge about, and change attitudes towards, sexual abuse and partner violence.[30]

5.2.3 Sexual Health Outreach

Outreach sexual health services usually target populations disproportionately at risk of poor sexual health and traditionally do not access mainstream services. Research into the effectiveness of outreach programmes is limited. Interventions are often small scale and resource intensive but target so called hard to reach people. The targeted nature means that infection detection rates are often higher amongst this population than clinic based services.[31]

5.3 Prevention of poor sexual health outcomes

5.3.1 Screening

Clinical guidelines suggest that when service users visit a sexual health clinic, they are offered a range of sexual health tests depending on their presentation, sexual behaviour and whether they are from an at risk group. Screening can be both provided asymptomatic and symptomatic either in clinics, in the community or online. Increasingly research is suggesting that online testing can make access to screening easier, especially for at risk groups, and break down potential barriers such as embarrassment and stigma related to visiting physical clinic based services.[32]

5.3.2 Contraception

Methods of contraception generally fall into two groups: those that are user dependent such as condoms, the pill or patch, and those that are long acting such an implant, injection, IU device or IU system. It is estimated that about 30% of pregnancies are unplanned. The effectiveness of the barrier method and oral contraceptive pills depends on their correct and consistent use[33]. By contrast, the effectiveness of long-acting reversible contraceptive (LARC) methods does not depend on daily concordance and are the most effective reversible methods of contraception, and have the additional advantages of being long-lasting and convenient[34].

5.3.3 Pre-exposure prophylaxis (PrEP) and HIV treatment

NICE advises that recent trials signal Pre-exposure prophylaxis (PrEP) is a highly effective preventative measure against HIV in certain high risk adult groups when given in addition to a comprehensive package of prevention services including HIV testing, risk-reduction counselling, condoms and STI management[35]. There are, however, issues relating to uptake, adherence, sexual behaviour, safety, prioritisation for prophylaxis and cost to consider[36].

5.3.4 Condom distribution schemes

Condom schemes, such as C-Card, aim to ensure easy access to sexual health advice and free condoms for young people. Evidence suggests schemes that increase the availability of and accessibility to condoms are successful in increasing condom use behaviours and preventing pregnancy and transmission of STIs and HIV[37]. But the quality of the research is generally low and has to put in the context of reducing public health budgets.

5.3.5 Vaccination

Vaccination is an evidence based protections against some STIs. For example, HPV is one of the most common sexually transmitted infections in the UK and vaccination offers protection against cervical lesions in young women, particularly in those who are vaccinated between the ages of 15 and 26[38].

5.4 Sexual Health Treatment

5.4.1 STI diagnosis and treatment and partner management

Central to preventing onward transmission of STI's is early diagnosis through increased testing and screening as well as the promotion of safe sex, especially condom use.[39] Open access services in which people can be tested and treated for STIs quickly and confidentially encourage people to come forward for testing, treatment and partner notification, ensure that infections are diagnosed rapidly and prevent onward infection[2].

In terms of chlamydia, the chlamydia care pathway (Figure 5.2) describes the individual steps which; taken together, represent comprehensive case management for an episode of chlamydia testing, diagnosis and treatment.[40]

5.4.2 HIV Diagnosis and treatment

The earlier HIV is diagnosed, the sooner a person can get access to treatment and improve their individual prognosis and prevent onward transmission. Increasing the number of tests in non-specialist healthcare settings in line with existing good practice will play a key role in tackling HIV. HIV treatment is currently provided in accordance with guidelines produced by the British HIV Association (BHIVA), and treatment outcomes are excellent. Currently, most treatment is provided in specialised service settings.

5.5 Effectiveness, cost-effectiveness and social return on investment

Investing in effective sexual health services and interventions reduces sexual ill health and brings wider benefits to individuals and society. The examples in Figure 5.2 illustrate the interdependency of the benefits for different commissioning organisations.[41] Investment in one area may benefit more than one commissioning organisation across the system.

Figure 5.2 Benefits of investment in effective services and interventions for individuals, the public and commissioners

Sexual health improvement objective	Benefits at the individual level	Benefits at the population level	Benefits to commissioners across the health and social care system
Continue to reduce the rate of under 16 and under 18 conceptions	Control over fertility through increased use of contraception Greater ability to pursue educational and employment opportunities Improved self-esteem Improved economic status/reduction in family and child poverty	Fewer unwanted pregnancies Improved health outcomes for mothers and babies Better educational attainment Better employment and economic prospects	Improved infant mortality rates Decrease in abortions Reduced use of mental health services Reduced use of social services Fewer young people not in education, employment or training Reduction in family and child poverty
Reduce rates of STIs among people of all ages	Treatment of STIs Reduced risk of other health consequences (e.g. pelvic inflammatory disease, tubal-factor infertility, ectopic pregnancy)	Reduction in prevalence and transmission of infection Opportunities to test for other STIs/HIV in those diagnosed with chlamydia Reaching young people with broader sexual health messages	Reduced use of gynaecology services Increased uptake of sexual health services by young people Increase in chlamydia diagnoses enabling more treatment and consequent reduction in prevalence

		Increased uptake of condom use	

Across the population, open access to good quality contraceptive services improves sexual health (especially in women over the age of 20), reduces unwanted conceptions, teenage pregnancies and inequalities. Furthermore, access to such services delivers a high financial return on investment. There is evidence to suggest that £1 invested in contraception over £11.09 is saved, whilst that rises to £13.42 for every £1 invested in LARC methods of contraception.[42]

A literature review into the control of Chlamydia suggested that having at least one chlamydia screening strategy would be cost-effective at nationally accepted thresholds, although this is based on the assumptions that there would be high chlamydia screening uptake, high baseline chlamydia prevalence and high estimates of the percentage of women experiencing complications of chlamydia[43]. More information about the cost effectiveness of sexual health services can be found on the PHE website.

6. What is on the horizon?

6.1 Population trends

Nottinghamshire County has a slightly older population with more older and fewer young people than the England average[44]. The older population is expected to increase at a higher rate over the next 10 years. There is consistent evidence that many older adults are sexually active and find sex both pleasurable and rewarding[45]. In 2016, 60% of men and 37% of women over 65 were still sexually active, and at least 1 in 4 men and 1 in 10 women aged 85+ were still sexually active[46]. This would suggest that as the population ages, there is going to be an increase need for services to address the sexual health needs of older age groups.

No major Government or administrative surveys collect data by including a question where transgender people can choose to identify themselves. The Gender Identity Research and Education Society (GIRES) estimate that around 1% of the population is 'gender variant' to some degree and the number of people seeking treatment is increasing by around 11% each year[47]. It is difficult to estimate future demands for sexual health services from the transgender population but monitoring of this group is important.

6.3 Digitalisation of services

Since the previous JSNA, there has been an increase in the commissioning and use of online sexual health services. Digitalisation offers the potential to increase access to populations who do not, for whatever reason, access local clinics. As technology improves, online services are able to offer new services such as online consultations and the

prescription of contraception. Nottinghamshire has commissioned online chlamydia and HIV testing services. Evaluation of these services is necessary to inform future service provision.

6.4 Antimicrobial resistance

Internationally, there has been increasing attention given to antimicrobial resistance. In March 2018, PHE reported the first case of multi-drug-resistant gonorrhoea in the UK[48]. Although most STIs can be effectively treated with antibiotics, there is a concern that in the future most infections could become resistant. BASHH guidelines changed in September 2018 and have removed the single dose Azithromycin as the first line treatment for chlamydia (due to antimicrobial resistance chlamydia and Mycoplasma genitalium).

6.5 Emerging STIs

Since the previous JSNA, concerns have been raised about a relatively new sexually transmitted disease, Mycoplasma genitalium. This STI is currently rarely diagnosed and tested for. It is unclear as to the prevalence of this STI. Some studies suggest it to be as prevalent as chlamydia[49] whilst others suggest it to be much lower[50]. If left untreated, it can lead to PID in women, an infection of the reproductive organs that can cause infertility. It is especially prevalent in people who have chlamydia. BASHH have issued draft national guidelines for the management of Mycoplasma genitalium which will have commissioning implications around the resourcing of testing and treatment.[51]

6.6 Relationships and sex education (RSE)

From September 2020, there is a requirement that all secondary schools in England will teach RSE and the introduction of the new subject of 'relationships education' in primary school as part of compulsory health education[52]. Currently only pupils attending local authority schools, not academies, receive some form of RSE. This is an opportunity for all children and young people to receive high quality teaching on consent, resilience, age-appropriate relationships and sex education, and keeping safe online. Intelligence from the Healthy School Hub team suggests that, in Nottinghamshire, there is currently inconsistent delivery and quality of RSE.

6.7 PrEP (pre-exposure prophylaxis)

PrEP is a drug taken by HIV negative people before sex that reduced the risk of getting HIV. PrEP has been made available to 10,000 people in England as part of the IMPACT trial but can also be purchased privately. PrEP has the potential to significant reduce HIV infection in people who are at high risk. Future consideration will be needed as to the financing and availability of PrEP once the IMPACT has concluded. Furthermore, there are worries that increased PrEP use could see a reduction in the use of condoms, thus a rise in other STIs.[53] Further national monitoring and research is required to see if this will become a trend.

6.8 Pressures on the sexual health system

There are a number of pressures facing the sexual health system. It is anticipated that demand for services and treatment will increase and there is uncertainty over future public health funding. Stakeholders will required to work collaboratively to support the delivery of positive sexual health outcomes in an uncertain economic environment.

6.10 Human papillomavirus (HPV)

HPV is one of the most common sexually transmitted infections in the UK. HPV infections are acquired primarily by sexual contact with an infected partner. A HPV vaccine is commonly offered to girls over 12 years old. The vaccine is now to be extended to the MSM population up to and including the age of 45 years through opportunistic vaccination at Sexual Health Services. Consideration will be required to how this programme will be rolled out and how men will be encouraged to take up the vaccine.

6.11 Changing sexual behaviours

Sexting refers to the sharing of sexual, naked or semi-naked images or sending of sexually explicit messages[54]. This has emerged as a growing phenomenon in recent years, facilitated by the advent of near universal smart phone ownership. Police report that during 2016/17 there were over 6,200 reported incidents of inappropriate sexting, in England, a 131 percent increase from 2014/15 and these are just those incidents reported[55].

Dating apps allow users to easily connect with others. Although the use of dating apps is mostly harmless and a simple way for people to find a date, they do highlight the need for the continued awareness raising of safe sex practices. Locally, health promotion teams are reporting their use access to casual sex and more sexual partners which can result in increasing rates of STIs.

Chemsex is a commonly used term to describe sex under the influence of drugs taken immediately before and/or during sexual contact to enhance sexual activity. As well as the dangers related to drug use including harm to health, risk of overdose, and possibility of addiction, chemsex that takes place between people who do not know each other are putting themselves at increased risk of sexual violence and contracting a sexually transmitted infection.

7. Local Views

It is a requirement for the three ISHS providers to complete bi-annual service user survey to monitor satisfaction with sexual health services and collect feedback. During 2017-18, a total number of 1293 surveys were completed. On average 95% of service users would recommend the service to a friend and of the 2 providers who asked about service users overall experience, 93% rated their experience as excellent. Positive feedback focuses on the polite, friendly and approachability of clinical and non-clinical staff. The sexual health providers reported few complaints but when complaints or negative feedback were received, they tended to focus on attitudes of staff, clinical issues, availability of parking and waiting times.

In September 2017, Mansfield and Ashfield CCG held a Citizen Reference Panel event at Vision West Nottinghamshire. Feedback from the event focused on increasing the access and promotion of sexual health services and increased provision of sexual health promotion for young people within education.

A consultation with health promotion teams within the sexual health services highlighted a number of common issues and emerging trends from their outreach and health promotion work.

Figure 5.4: Sexual Health themes from sexual health promotion providers

Sexting and use of dating apps The sending and receiving of inappropriate material is still a cause for concern. There is an increasing trend of young people being sent inappropriate material from unknown adults via social media. Dating apps are also being used to meet people for casual sex.	**Consent** Whilst young people may have an increased understanding of the term 'consent', sexual behaviour and expectation does not always reflect this. Young people need the skills and confidence to develop the ability to ask for consent.	**Child Sexual Exploitation (CSE)** CSE is a major theme reported by health promotion teams. There appears to be a trend of boys, young men, and young people being used to groom other young people. It is also being reported that Young people who identify as LGBT and who look for support and information online and could unknowingly put themselves at risk of exploitation.	**Lack of basic knowledge relating to sexual health and contraception** Clinicians report that young people often have a poor understanding of their bodies and sexual health. Their understanding of contraceptive choices and infection risk is also limited. Some of the most vulnerable young people often miss out on RSE and sexual health messages because of missing out on significant time at school.
LGBT+ Clinicians report a significant increase in young people who identify as LGBT+. This can be problematic for the young person due to limited awareness within both educational and medical environments around LGBT+ issues, stigma and access to appropriate services. Homophobic and transgender bullying is still a major issue especially within certain geographical areas.	**Low self-esteem and mental health issues** Clinicians report that mental health issues are becoming more visible in the young people that they work with. Poor mental health can impact sexual health and risk taking behaviour including: unplanned pregnancy and termination, unhealthy and abusive relationships, sexting and child sexual exploitation (CSE)	**Emergency Hormone Contraception (EHC)** The Sexions team report a localised issue of young people reporting difficulties in accessing free EHC particularly in the Mansfield area.	**Pornography** The ease of access to online pornography is giving some young people unhealthy expectations and sexual behaviours. Issues around pornography are not always talked about and further exploration is required.

A service user survey was conducted within the ISHS from November 2017 to February 2018, with a total of 326 responses. The aim of the survey was to gain an insight into the increased demand on ISHS to provide routine contraceptive services.

The survey found that:

- The majority of service users had accessed contraception from their GP in the past.
- Most service users wanted to access sexual health services to get their contraception.
- Respondents felt that sexual health services were a specialist service that could meet their needs whereas they could not always get what they needed from GP practices. They liked the convenience of the opening hours and location of the services. Another important factor was that respondents felt comfortable and thought that the staff were friendly and helpful.
- A number of the respondents preferred the sexual health services as they had always gone there and could get appointments at short notice and at convenient times.

In addition to the above survey, a smaller number of service users from My Sexual Health at Sherwood Forest Hospitals were asked by the reception team which GP practice they were registered at, and if they had tried to get an appointment with their GP first. They were also asked for reasons why they could not get a GP appointment. Service users generally gave three broad reasons for not being able to get a GP appointment for routine contraception;

- No or limited availability at GP
- Lack of trained practitioner to conduct the intervention
- GP no longer offers the service
- GP referred service users to ISHS

This small scale survey gives an insight into women's reasons for accessing different services for their contraceptive needs. This insight suggests that service users prefer using sexual health services but this preference could be influenced by wider issues within primary care. It is important that there are a range of options for services users to access that are convenient and accessible.

As the integrated model of sexual health services has become more embedded within Nottinghamshire, there is an increased need to engage with local service users to understand how sexual health provision within Nottinghamshire could be improved.



What does this tell us?

8. Unmet needs and service gaps

Nottinghamshire County is similar to the rest of the country when considering key sexual health outcomes. There is a clear evidence base, as laid out earlier in this document, for effective interventions to address population sexual health need. Actions to tackle the need identified in this section are included in the recommendations for commissioners.

There is significant unmet need in the following areas:

8.1 Sexual Health Promotion

1. The delivery of high quality RSE in primary and secondary schools is inconsistent across Nottinghamshire. This is a concern particularly where schools have a significant proportion of students from more vulnerable backgrounds. These schools will need support in preparing for RSE becoming a statutory subject in 2020 in order to provide quality and evidence based content.
2. There is unequal distribution of sexual health drop in sessions for secondary school pupils in schools across Nottinghamshire. The Healthy Families Team is currently struggling to engage with a number of schools to provide this service.
3. Engagement with Nottinghamshire young people suggests there are gaps in the promotion of sexual health services and provision of sexual health education especially in higher education.

8.2 Prevention of poor sexual health outcomes

4. The majority of diagnoses occur in those aged 15 to 24 years. This indicates unmet need for effective sex and relationships education, and health promotion initiatives to reduce risky sexual behaviour and increase effective and consistent condom use.
5. Data shows that men, especially young white men, are less likely to access sexual health services. Specific targeted work may be required to raise awareness of issues relating to sexual health within the male population.
6. The variation in chlamydia detection rates across the district suggests that there is a need to improve access to testing in different localities. A review of the previous chlamydia action plan is needed to identify successes and challenges and a potential targeted sexual health campaign in areas where the detection rate is low.
7. There is variance across the districts in STI reinfection rates, this suggests a need to improve safe sex messaging and practice.
8. The majority of chlamydia testing happens within the ISHS and GP surgeries. This may mean that there needs to be increased targeted opportunistic screening for those people at increased risk of contracting chlamydia.
9. There are unusual high rates of syphilis and gonorrhoea in males aged between 40 and 49. This suggests that they may not be practicing safe sexual behaviour and not using condoms. There is an ongoing need for prevention, diagnosis and treatment across all age groups.

10. Whilst there is good coverage and access to EHC, feedback suggests that service users cannot always get access to free EHC when required.

8.3 Sexual Health Treatment

11. In 2018, the contract for ToP services (previously delivered by the same provider that delivered sexual health services) was awarded to another provider. This has reduced opportunities for women accessing ToP services to have access to sexual health services 'under the same roof'.

9. Knowledge gaps

There are some gaps in current knowledge, arising from both the scope and complexity of sexual health services and the lack of availability of data in some areas.

9.1 Sexual Health Promotion

1. Whilst sexual health services have effective communication plans, there is little known about whether this is reaching at risk populations or having the desired effect.

9.2 Prevention of poor sexual health outcomes

2. There is a gap in understanding the views of Nottinghamshire who do and do not access sexual health services. Engagement work will provide some insight into local needs.
3. HIV testing uptake and coverage in Nottinghamshire has dropped significantly. Initial enquiries into this suggests that there is an issue with quality recording but further investigation is required.
4. Across the county, there are differences in HIV late diagnosis rates. This could be due to the small numbers of people with HIV but further investigation is required.
5. There is no clear picture of LARC demand and provision across Nottinghamshire. There could be areas of unmet need for LARC and opportunities to encourage primary care to deliver this service.
6. Data on STI reinfections is challenging to obtain and analyse. Further investigation is needed to understand what is driving higher rates of reinfection and how behaviour change can be encouraged via sexual health services and health promotion routes.
7. There is very little information available locally about specific sexual health needs of some at risk groups such as young offenders, sex workers, MSM and LGBT communities. Engagement work is required with key groups in the county to provide some insight into local needs.

9.3 Sexual Health Treatment

8. Sexual health services are required to collect service user satisfaction data but the JSNA has revealed inconsistencies in how feedback in collected and reported. This

makes it difficult to gain an overall picture of service user satisfaction across providers across Nottinghamshire.

9. There are significant issues with managing demand and expectations between ISHS and primary care. Further work is required to establish clear pathways between primary and secondary care services to ensure commissioners and providers keep up with changes and pressures in the health care system in order for citizens to continue to receive the right care in the right place at the right time.
10. Little is known about the effectiveness and impact of online chlamydia testing service. A service evaluation is required to monitor this service.
11. There is little reliable data available about sexual orientation in relation to sexual health outcomes and service provision.
12. As identified in section 6, there are a number of issues on the sexual health horizon such as testing for M. Gen, the roll of out PrEP and increased service demand. Further investigation is required to understand the financial impact of these potential demands of sexual health budgets and services.

What should we do next?

10. Recommendations for consideration by commissioners

The recommendations identify key changes needed to address the sexual health needs of people in Nottinghamshire County. In most cases they represent measures that should be taken alongside or in addition to current arrangements and levels of investment. Erosion of investment required to sustain current arrangements is likely to increase the level of unmet need amongst residents.

	Recommendation	Lead organisation			
		SHSAG	Local Authority	Providers	Others
Sexual Health Promotion					
1.	Consider more robust planning and evaluation around communications for sexual health campaigns.	/	/	/	/
2.	Consult with the community to understand the views of citizens and barriers for those who use (and do not use) sexual health services, especially those from identified at risk groups.	/	/		
3.	Consider further assessments/audits including engagement with specific sexual health needs of some at risk groups such as young offenders, sex workers, MSM and LGBT Q+ communities.	/	/		
4.	Support stakeholders to prepare Nottinghamshire schools for the implementation of statutory RSE in September 2020.		/		
Prevention of poor sexual health outcomes					
5.	Work with a range of partners and stakeholders from within the health care system with the aim of addressing the pressures in the sexual health system in order for citizens to continue to receive the right care in the right place at the right time.	/	/	/	/

6.	Develop a further understanding of factors contributing to reinfections and how behaviour change can be encouraged via sexual health services and health promotion routes.			/	
7.	Investigate the differences in sexual health outcomes within the districts of Nottinghamshire to understand the potential causes and implement interventions where appropriate.	/	/	/	/
8.	Continue efforts to improve Nottinghamshire's chlamydia detection rate to regional and national averages, with the aspiration of achieving the PHOF target.	/	/	/	/
9.	Investigate what is driving the drop in HIV testing coverage and uptake within Nottinghamshire.	/	/	/	/
10.	Consider auditing Locally Commissioned Public Health Services (LARC/EHC) across Nottinghamshire to enhance understanding of demand, provision and potential unmet needs.		/		
Sexual health treatment					
11.	Consider reviewing and refining service user satisfaction data collection methods to understand how people use sexual health services and what services people want.		/	/	
12.	Consider a service evaluation of the online chlamydia testing service to understand who is using it, the cost effectiveness of the service and anticipated future demand.		/		
13.	Understand and plan for issues on the sexual health horizon such as testing for M. Gen, roll out of PrEP and increased service demand.	/	/	/	/
14.	Ensure that MSM are tested regularly and in line with the current guidance.			/	

Glossary

ART – Antiretroviral Therapy
BASHH - The British Association for Sexual Health and HIV
BHIVA – British HIV Association
BAME – Black, Asian and Ethnic Minority
CaSH – Contraception and Sexual Health
CSE – Child Sexual Exploitation
CTAD – Chlamydia Testing Activity Dataset
DBH – Doncaster and Bassetlaw Teaching Hospitals NHS Foundation Trust
DHSC – Department of Health and Social Care
EHC – Emergency Hormone Contraceptive
FSRH – Faculty of Sexual and Reproductive Health
GUM – Genitourinary Medicine
HFT – Healthy Families Team
HIV - Human Immunodeficiency Virus
HPV - Human Papillomavirus
LARC – Long Acting Reversible Contraception
LCPHS – Locally Commissioned Public Health Service
LASER – STI and HIV Epidemiology Report
LGBTQ+ – Lesbian, Gay, Bisexual, Transgender, Questioning and other groups
ISHS – Integrated Sexual Health Service
NICE – National Institute of Clinical Excellence
MSM – Men who have sex with men
NUH – Nottingham University Hospitals NHS Trust
ONS – Office for National Statistics
PHE – Public Health England
PHOF – Public Health Outcomes Framework
PrEP - Pre-exposure prophylaxis
PSE – Public Sex Environment
PWID – People who inject drugs
RAG rating – Red, Amber, and Green rating
RSE – Relationships and Sex Education
SARC - Sexual Assault Referral Centre
SED – Socio-economic deprivation
SFHT – Sherwood Forest Hospitals NHS Trust
SHSAG - Sexual Health Strategic Advisory Group
SRHAD – Sexual and Reproductive Health Activity Dataset
STI – Sexually Transmitted Infection
SW – Sex Worker
ToP – Termination of Pregnancy
VCS – Voluntary and community sector

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Appendix 1

2015 JSNA recommendations for consideration by commissioners with 2018 updates on responses

Summary Recommendations		Response
1	Promote system alignment of sexual health commissioning priorities.	Work is being untaken to engage with other sexual health commissioning organisations.
2	Evaluate (following shadowing) the integrated sexual health tariff.	The integrated sexual health tariff has been used for over two years and is constantly reviewed.
3	Work collaboratively to implement the interdependent priorities identified across key strategies.	Work is being untaken to engage with other sexual health commissioning organisations.
4	Improve access to up-to-date information about sexual health service provision.	All ISHS providers have up-to-date information on their websites regarding their service.
5	Review and improve the provision of Sex and Relationships Education (SRE) in schools.	New statutory RSE is planned to be implemented in 2020. The authority has commissioned a service to support schools.
6	Ensure sexual health needs are addressed in the new school health model.	Drop in sexual health clinics are established in a number of schools across Nottinghamshire but there are a number of barriers and challenges.
7	Review and improve the promotion of information about the full range of contraception and Sexual Health services by mainstream youth services and the Youth Offending Service (YOS)	
8	Review and improve access and coverage to increase STI testing and uptake of LARC.	An online chlamydia testing service has been commissioned and
9	Review the effectiveness of the service model for Chlamydia screening.	Increased chlamydia detection rate
10	Improve the promotion of preventative messages to high risk groups and young people concerning reinfection of STIs	All ISHS providers have health promotion plans to coordinate preventative messages
11	Work with secondary care provider to offer additional HIV training and awareness within primary care.	
12	Implement a rolling programme of engagement with local people.	
13	Work with providers to complete a health equity audit of all sexual health services.	The health equity audit has been completed as findings shared with the SHSAG.

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Summary Recommendations		Response
14	Implement 'You're Welcome' accreditation in all secondary care services to improve quality and access for young people	ISHS providers are either accredited or working towards reaccreditation. A series of inspections are planned.
15	Work with providers to improve integration of pathways for young people accessing Sexual Health services	
16	Review sexual health pathways to increase access for young offenders and develop accordingly to ensure need is met.	
17	Continue and develop, access to specialist services for prostitutes/sex workers to meet specific sexual health needs.	This work is being undertaken by ISHS provider health promotion teams.
18	Ensure sexual health services are accessible and meet the needs of MSM and LGBT communities across the county.	
19	Ensure that monitoring data reported by all Local Authority commissioned sexual health services meets commissioning needs.	Reviewed during contract review meetings with service providers.
20	Implement integrated pathways for sexual and reproductive health that reflect evidence based practice and deliver an improved patient journey that is equitable, accessible, high quality and reflects value for money	
21	Establish the causes of the apparently high recorded rates of admission for pelvic inflammatory disease in Nottinghamshire.	A clinical audit suggested that these high rates may be due to data issues. A more in depth audit is currently being undertaken.
22	Review the Termination of Pregnancy (TOP) pathway to identify any areas for improvement and ensure best practice.	
23	Consider approaches to reduce the proportion of women undergoing repeat terminations.	
24	Ensure best practice in HIV treatment completion by agreeing and communicating coherent patient pathways with commissioners in NHSE and CCGs	
25	Promote earlier diagnosis of HIV by working with primary care.	
26	Work collaboratively with NHSE Area Teams to ensure best practice, in	Work is being untaken to engage with other sexual health commissioning organisations.

Summary Recommendations		Response
	effective and coordinated HIV treatment and care.	

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Appendix 2

RAG rated STI diagnoses by district 2017

Diagnostic rates per 100,000 population for main STIs 2017

source: PHOF sexual and reproductive health profiles - https://fingertips.phe.org.uk/profile/sexualhealth/data#page/0

2017 data

Compared with England -	Better	Similar	Worse
Not compared -	Lower	Similar	Higher

	All new STIs	Syphilis	Gonorrhoea	Chlamydia	Genital Warts	Genital Herpes
England	743.1	12.5	78.8	361.3	103.9	56.7
Nottinghamshire County	551.3	4.7	40.4	**297.8**	89.2	49.2
Ashfield	662.6	4.0	49.0	**345.3**	104.4	61.8
Bassetlaw	554.6	4.3	19.1	**298.6**	94.6	66
Broxtowe	445.1	7.1	41.0	**236.4**	86.5	33.0
Gedling	519.9	4.3	66.0	**286.1**	71.1	34.3
Mansfield	756.4	4.6	46.3	**426.4**	92.7	77.9
Newark & Sherwood	528.2	4.2	30.9	**277.9**	99.3	42.6
Rushcliffe	395.1	4.3	30.4	**217.9**	74.7	29.5

Diagnosis numbers for main STIs 2017

	All new STIs	Syphilis	Gonorrhoea	Chlamydia	Genital Warts	Genital Herpes
England	410703	6898	43547	199677	57399	31314
Nottinghamshire County	4474	38	328	2417	724	399
Ashfield	825	5	61	430	130	77
Bassetlaw	639	5	22	344	109	76
Broxtowe	499	8	46	265	97	37
Gedling	607	5	77	334	83	40
Mansfield	816	5	50	460	100	84
Newark & Sherwood	633	5	37	333	119	51
Rushcliffe	455	5	35	251	86	34

source: PHOF sexual and reproductive health profiles - https://fingertips.phe.org.uk/profile/sexualhealth/data#page/0

2017 data

Numbers between 1 and 4 rounded up to 5 for non-disclosure purposes.

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Appendix 3

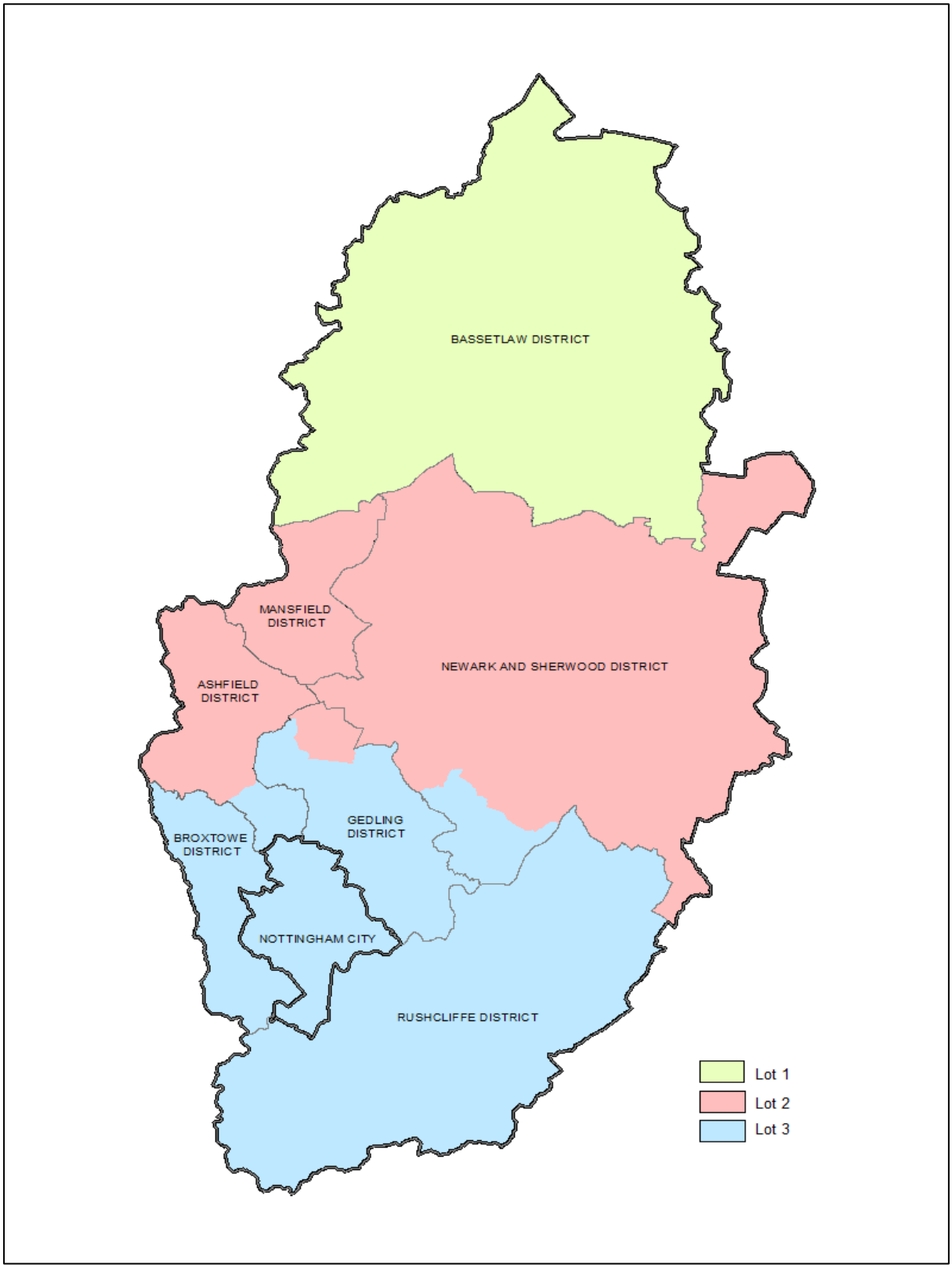
Summary of Commissioning Responsibilities for Sexual Health Services

Local Authorities	CCGs	NHS England
• Contraception • STI testing and treatment • Chlamydia testing as part of the National Chlamydia Screening Programme • HIV testing • Sexual health aspects of psychosexual counselling • Sexual services including young people's sexual health, teenage pregnancy services, outreach, HIV prevention and sexual health promotion work, services in schools, colleges and pharmacies	• Termination services • Vasectomy • Non sexual health elements of psychosexual health services • Gynaecology including use of contraception for non-contraception purposes	• Contraception provided as an additional service under the GP contract • HIV treatment and care including post-exposure prophylaxis after sexual exposure • Promotion of opportunistic testing and treatment for STIs • Sexual health elements of prison health services • Sexual Assault Referral Centres • Cervical screening • Specialist foetal medicine
Original Source: Department of Health Commissioning Sexual Health services and interventions: Best Practice guidance for local authorities, 2013		

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Appendix 4

Map of provider areas



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Appendix 5

Description of services delivered at the three levels within an Integrated Sexual Health Service Model

a) Level 1 Provision

Level 1 refers to contraception and sexual health services that can be offered in primary care and community settings.

Level 1 services include; the provision of emergency hormonal contraception, screening for common sexually transmitted infections, pregnancy testing, and referral to specialist services, sexual health promotion, disease prevention and targeted outreach.

Nottingham City and Nottinghamshire County Public Health Departments would like to broaden and strengthen the range of contraception and sexual health services available in primary care and other venues and community settings. Third sector organisations also have an important role in delivering sexual health promotion and disease prevention campaigns and interventions.

b) Level 2 Provision

Level 2 refers to enhanced contraception and sexual health services. Level 2 services includes the provision of long-acting reversible contraception (e.g. sub-dermal implants and IUCDs) and the testing and treatment of uncomplicated sexually transmitted infections.

Level 2 services are often delivered in community contraception and sexual health clinics including community clinics (spokes) and it is our intention that this position should be developed. Community clinics will be expected to further extend their role in STI screening and the management of uncomplicated STIs, freeing up GUM clinics to concentrate on delivering relevant Level 3 provision.

c) Level 3 Provision

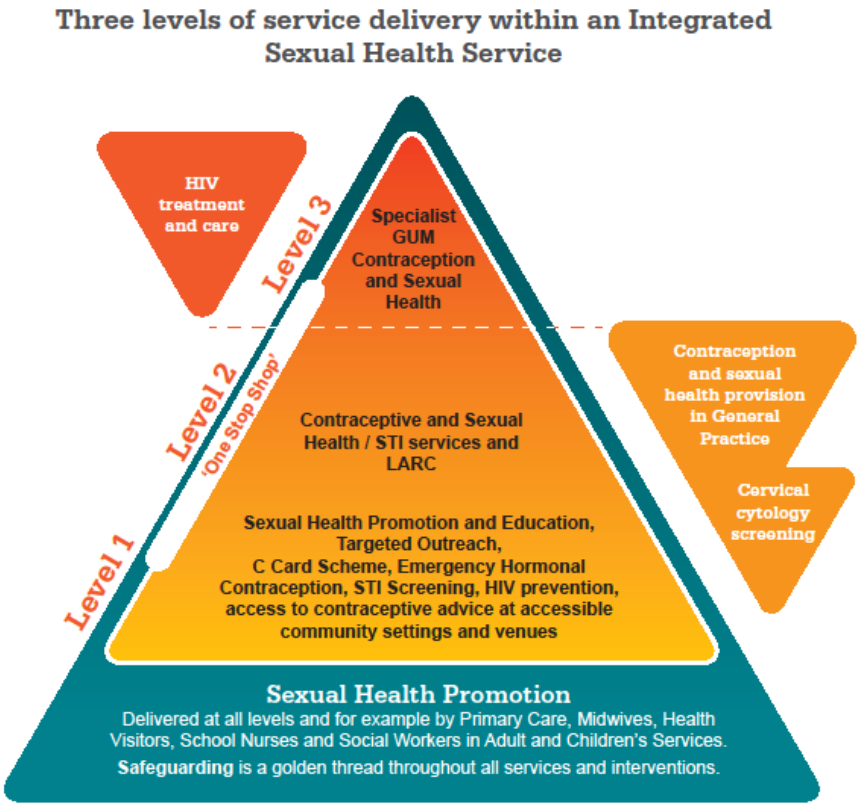
Level 3 refers to specialist contraception and sexual health services. Level 3 services include treating complicated sexually transmitted infections, complex contraception, and termination of pregnancy (Termination of pregnancy is the commissioning responsibility of CCGs).

Our intention is that specialist clinical teams located at GUM clinics (except provision for termination of pregnancy) will provide most Level 3 services as part of an integrated sexual health service. GUM clinics will focus on patients with complex, chronic or intensive needs, particularly in relation to treating clients with HIV (HIV treatment is currently the commissioning responsibility of NHS England Specialist Commissioning Teams) and complex STIs.

Level 3 services, and will continue to provide specialised contraception and the coordination, teaching and training of Level 2 providers.

Figure 1 below provides a visual illustration of the services delivered in the three levels within the ISHS within Nottingham City and Nottinghamshire County

Figure 1



Notes about Figure 1

- Servcies described in Level 1, 2 and 3 in the central triangle are principally part of an ISHS provision
- The inverted triangles to the left and right of the central triangle describe a number of sexual health services that are part of an integrated sexual health pathway of careare subject to sepearate commissioning arrangements

Figure 2 provides an illustration of the ISHS model. The model includes Locally Commissioned Public Health Services (LCPHS) from General Practice who are contracted to deliver LARC and Community Pharmacists delivering Emergency Hormonal Contraceptive

(EHC, Chlamydia Screening and C Card in the city and EHC in the county). The LCPHS, whilst being integral to the ISHS are contracted by each council.

Figure 2


Integrated Sexual Health Service delivery within Nottingham City and Nottinghamshire County
Level 1 Targeted Outreach, Sexual Health Promotion and HIV Prevention
Level 1 & 2 Contraceptive and Sexual Health / STI services and LARC
Spoke(s)
Level 1, 2 & 3 Specialist GUM, Contraception and Sexual Health
Hub
County Level l and 2 LARC
Local Authority Contracts with GP Practices
City Level 1
A range of services Local Authority Contracts with Community Pharmacists
County Level 1 EHC
Local Authority Contracts with Community Pharmacists
City Level 1 & 2
LARC & STI Testing Local Authority Contracts with GP Practices
Colour Key
County Only
City Only
Spoke (s)
Hub
Targeted Outreach

Appendix 6

Clinical Guidance

- BASHH/Brook (April 2014) Spotting the Signs. A national proforma for identifying risk of child sexual exploitation in sexual health services
- British HIV Association Standards of Care for People Living with HIV (BHIVA 2013)
- BASHH Standards for Outreach
- BASHH-BHIVA Position Statement on PrEP in UK (May 2016)
- BHIVA: UK National Guidelines on Safer Sex Advice (2012)
- BHIVA: Standards For Psychological Support (2011)
- COSRT Code of Ethics (COSRT 2013)
- FSRH Service Standards for Sexual and Reproductive Healthcare - September 2016
- FSRH Standards for Emergency Contraception 2017
- FSRH Standards Service Standards on Confidentiality 2015
- FSRH Service Standards Consultations in SRH 2015
- FSRH Quality Standard for Contraceptive Services 2014
- FSRH Clinical Standards Medicine Management Feb 2014
- FSRH Service Standards for Workload in Sexual and Reproductive Health 2017
- FSRH Service Standards for Record Keeping in Contraception in Sexual and Reproductive Healthcare Services 2014
- Female genital mutilation: Safeguarding women and girls at risk of FGM (DH 2016)
- GMC Projection Children and Young People (2012)
- Hepatitis A, Green Book, Chapter 17 (PHE 2013)
- Hepatitis B, Green Book, chapter 18. (PHE 2013 revised 2017)
- Hepatitis B and C testing: people at risk of infection Ways to promote and offer testing to people at increased risk of infection. NICE Public Health Guidance 43 (NICE 2012) updated 2013;
- Institute of Psychosexual Medicine
- MEDFASH; Progress and Priorities, for high quality sexual health (2008)
- MEDFASH. Recommended Standards for Sexual Health Services (2005)
- National Chlamydia Screening Programme Guidelines for Outreach

References

[1]Department of Health. (2013) *A Framework for Sexual Health Improvement in England*. Available at: https://www.gov.uk/government/publications/a-framework-for-sexual-health-improvement-in-england [Accessed 16.07.18]

[2]WHO (2016) Sexual Transmitted Infections. Available at: http://www.who.int/news-room/fact-sheets/detail/sexually-transmitted-infections-(stis) [Accessed 15.11.18].

[3]Public Health England. (2018) *Sexually transmitted infections and screening for chlamydia in England, 2017*.Health Protection Report, Volume 12 Number 20 (8) Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/713944/hpr2018_AA-STIs_v5.pdf [Accessed 14.09.18].

[4]Public Health England (2017) *Nottingham 2016 Laser Report*

[5]Mercer C H, Tanton C, Prah P, Erens B, Sonnenberg P, Clifton, S Johnson. (2013). Changes in sexual attitudes and lifestyles in Britain through the life course and over time: findings from the National Surveys of Sexual Attitudes and Lifestyles (Natsal). *Lancet*, *382*(9907), 1781–1794. Available at: https://ac.els-cdn.com/S0140673613620358/1-s2.0-S0140673613620358-main.pdf?_tid=29b2431e-9f34-4070-9819-4b6d985b2e55&acdnat=1531734780_1fe443f4cbbb75ca6f61e625a7e635cf [Accessed 14.09.18]

[6]Public Health England. (2018) *Sexually transmitted infections and screening for chlamydia in England, 2017*.Health Protection Report, Volume 12 Number 20 (8) Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/713944/hpr2018_AA-STIs_v5.pdf [Accessed 14.09.18].

[7]NHS Digital. (2017) Statistics on Sexual and Reproductive Health Services England: 2016/17. Available at:https://files.digital.nhs.uk/pdf/d/5/srh-serv-eng-16-17-rep.pdf [Accessed 14.09.18].

[8]Department of Health and Social Care. (2018) *Abortion Statistics, England and Wales: 2017*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/714183/2017_Abortion_Statistics_Commentary.pdf [Accessed 14.09.18].

[9] Hughes E, Bassi S, Gilbody S, Bland M and Martin F. (2016) Prevalence of HIV, hepatitis B, and hepatitis C in people with severe mental illness: a systematic review and meta-analysis. *Lancet Psychiatry* 3: 40–48.

[10]Cambridge P. (2003) The sexual health needs of people with learning disabilities. *Nursing Times,* 99 (35), 48-49 Available at: https://www.nursingtimes.net/Journals/2012/11/16/z/o/f/030902The-sexual-health-needs-of-people-with-learning-disabilities.pdf [Accessed 14.09.18].

[11]Wayal S, Hughes G, Sonnenberg P, Mohammed H, Copas AJ, Gerressu M, et al. Examining ethnic variations in sexual behaviours and sexual health markers: evidence from a British national probability sample survey. The Lancet Public Health 2017; 2(10): e458-e472.

[12]Public Health England. (2017) Shooting Up: Infections among people who inject drugs in the UK, 2016 An update, Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/663003/Shooting_Up_2017_report.pdf [Accessed 14.09.18].

[13]WHO Europe. (2014) *Prisons and Health*. Available at: http://www.euro.who.int/__data/assets/pdf_file/0005/249188/Prisons-and-Health.pdf [Accessed 14.09.18].

[14]McGrath-Lone L, Marsh K, Hughes G, et al. (2014)The sexual health of female sex workers compared with other women in England: analysis of cross-sectional data from genitourinary medicine clinics. *Sexually Transmitted Infection*; 90:344–350.

[15]The Association of Directors of Public Health. (2017) *Policy Position: Sexual Health*. Available at: http://www.adph.org.uk/wp-content/uploads/2017/11/ADPH-Policy-Position-Sexual-Health-1.pdf [30.07.18]

[16]Imamura M, Tucker J, Hannaford P, Oliveira da Silva M, Astin M, Wyness L, Bloemenkamp KWL, Jahn A, Karro H, Olsen J and Temmerman M (2007), Factors associated with teenage pregnancy in the European Union countries: a systematic review, *European Journal of Public Health*, Volume 17, Issue 6, 1 December 2007, Pages 630–636.

[17] GUMCAD data

[18]Mehta S D, Erbelding E J, Zenilman J M, *et al.* (2003) Gonorrhoea reinfection in heterosexual STD clinic attendees: longitudinal analysis of risks for first reinfection, *Sexually Transmitted Infections* 2003; 79:124-128 Available at https://sti.bmj.com/content/79/2/124 [14.09.18].
[19]Public Health England. (2018) *Sexually transmitted infections and screening for chlamydia in England, 2017*.Health Protection Report, Volume 12 Number 20 (8) Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/713944/hpr2018_AA-STIs_v5.pdf [Accessed 14.09.18].
[20]Public Health England. (2018) *Sexually transmitted infections and screening for chlamydia in England, 2017*.Health Protection Report, Volume 12 Number 20 (8) Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/713944/hpr2018_AA-STIs_v5.pdf [Accessed 14.09.18].
[21]British Association for Sexual Health and HIV (2011) *UK National Guideline for the Management of Pelvic Inflammatory Disease*, Available at: http://www.bashh.org/documents/3572.pdf [Accessed 14.09.18].
[22]Public Health England (2017) *Nottinghamshire 2016 Laser Report*
[23]Mehta S D, Erbelding E J, Zenilman J M, *et al.* (2003) Gonorrhoea reinfection in heterosexual STD clinic attendees: longitudinal analysis of risks for first reinfection, *Sexually Transmitted Infections* 2003; 79:124-128 Available at https://sti.bmj.com/content/79/2/124 [Accessed 14.09.18].
[24]Department of Health and Social Care. (2018) *Abortion Statistics, England and Wales: 2017*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/714183/2017_Abortion_Statistics_Commentary.pdf [Accessed 14.09.18].
[25]The Faculty of Sexual and Reproductive Healthcare. (2014) *A Quality Standard for Contraceptive Services* 2014, Available at: http://www.fsrh.org/pdfs/FSRHQualityStandardContraceptiveServices.pdf [Accessed 14.09.18].
[26]Data for Pharmoutcomes
[27]Public Health England. (2018) *Sexually transmitted infections and screening for chlamydia in England, 2017*.Health Protection Report, Volume 12 Number 20 (8) Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/713944/hpr2018_AA-STIs_v5.pdf [Accessed 15.11.18].
[28]Gabarron E and Wynn R (2016) Use of social media for sexual health promotion: a scoping review. *Global Health Action*, 2016, 9: 32193, Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5030258/pdf/GHA-9-32193.pdf [Accessed 23.07.18]
[29]Douglas Kirby PhD (2001) Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy (*Summary*), *American Journal of Health Education*, 32:6, 348-355, Available at: https://www.tandfonline.com/doi/abs/10.1080/19325037.2001.10603497[Accessed 23.07.18].
[30]Picot J, Shepherd J, Kavanagh J, Cooper K, Harden A, Barnett-Page E, Jones J, Clegg A, Hartwell D & Frampton G. (2012). Behavioural interventions for the prevention of sexually transmitted infections in young people aged 13–19 years: a systematic review. *Health Education Research*, Volume 27, Issue 3, 495–512, Available at: https://academic.oup.com/her/article-abstract/27/3/495/609859?redirectedFrom=fulltext [Accessed 23.07.18].
[31]Lampejo T, Turner R, Roberts C, Allen K, Watson L, Caverley-Frost L, Scott P, Ostridge E, Cooney G, Hardy J, Nulty K and Day S. (2018) Novel outreach settings to enhance sexually transmitted infection/HIV awareness, diagnosis and treatment in hard-to-reach populations. *International Journal of STD and AIDS*, vol. 29 (no. 3); p. 266-272.
[32]Wilson E, Free C, Morris TP, Syred J, Ahamed I, Menon-Johansson AS, et al. (2017) Internet-accessed sexually transmitted infection (eSTI) testing and results service: A randomised, single-blind, controlled trial. *PLoS Med*, 14(12): Available at: https://doi.org/10.1371/journal. pmed.1002479 [Accessed 23.07.18].
[33] NICE CG39 (2014) *Long-acting reversible contraception*. Available at: https://www.nice.org.uk/guidance/cg30 [Accessed 30.07.18].
[34]Stoddard A, McNicholas C & Peipert J. F (2011). Efficacy and safety of long-acting reversible contraception. *Drugs*, *71*(8), 969-80.
[35]National Institute for Health and Care Excellence. (2018) *Pre-exposure prophylaxis of HIV in adults at high risk*. Available from: https://www.nice.org.uk/advice/esnm78/chapter/Key-points-from-the-evidence [Accessed 30.07.18].
[36]British HIV Association. (2018) BHIVA/BASHH guidelines on the use of HIV pre-exposure prophylaxis (PrEP). 2017. [Cited 25th July 2018]. Available at:

http://www.bhiva.org/documents/Guidelines/PrEP/Consultation/PrEP-guidelines-consultation-2017.pdf [Accessed 30.07.18].
[37]NICE (2017) Sexually transmitted infections: condom distribution schemes. Available at: www.nice.org.uk/guidance/ng68 [Accessed 15.11.18].
[38]Arbyn M, Xu L, Simoens C, Martin-Hirsch PPL (2018) Prophylactic vaccination against human papillomaviruses to prevent cervical cancer and its precursors. *Cochrane Database of Systematic Reviews* Issue 5. Available at: https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD009069.pub3/epdf/standard [Accessed 15.11.18].
[39]Public Health England (2015) *Health promotion for sexual and reproductive health and HIV; Strategic action plan, 2016 to 2019*. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/488090/SRHandHIVStrategicPlan_211215.pdf [Accessed 27.07.18]
[40]PHE (2016) *National Chlamydia Screening Programme (NCSP) Chlamydia Care Pathway* https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/523377/NCSP_Chlamydia_Care_Pathway_version_7_final.pdf [Accessed 27.07.18]
[41]PHE (2015) *Making it work A guide to whole system commissioning for sexual health, reproductive health and HIV*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/408357/Making_it_work_revised_March_2015.pdf [Accessed 25.07.18]
[42]Bayer (2013) Bayer Healthcare Contraception Atlas, 2013. Available at: http://theagc.org.uk/wp-content/uploads/2013/08/Contraception-Atlas-2013-FINAL.pdf [Accessed 27.07.18]
[43]European Centre for Disease Prevention and Control (2014) *Chlamydia control in Europe: Literature review.* Available at: https://ecdc.europa.eu/sites/portal/files/media/en/publications/Publications/chlamydia-control-europe.pdf [Accessed 27.07.18]
[44]The People of Nottinghamshire JSNA. Available at: http://www.nottinghamshireinsight.org.uk/people/key-population-facts/ [Accessed 19.07.18]
[45]Hinchliff S, Tetley J, Lee D and Nazroo J. (2018) Older adults' experiences of sexual difficulties: qualitative findings from the English longitudinal study on ageing (ELSA). T*he Journal of Sex Research*, 55:2, 152-163,
[46] Lee D, Tetley J. (2017) How long will I love you? Sex and intimacy in later life. Available online: https://www.researchgate.net/publication/315165295_How_long_will_I_love_you_Sex_and_intimacy_in_later_life [Accessed 19.07.18]
[47]Gender Identity Research and Education Society. (2011) The Number of Gender Variant People in the UK - Update 2011. Available at:https://www.gires.org.uk/wp-content/uploads/2014/10/Prevalence2011.pdf [Accessed 14.09.18]
[48]Public Health England. (2018) *Update on investigation of UK case of Neisseria gonorrhoeae with high-level resistance to azithromycin and resistance to ceftriaxone acquired abroad*, Health Protection Report: Volume 12 Number 14. Available at: https://www.gov.uk/government/publications/multi-drug-resistant-gonorrhoea-in-england-2018 [Accessed 19.07.18]
[49]Sonnenberg P. et al. (2015) Epidemiology of Mycoplasma genitalium in British men and women 26 aged 16-44 years: evidence from the third National Survey of Sexual Attitudes and Lifestyles 27 (Natsal-3). *International Journal of Epidemiology*, 44(6) p. 1982-94.
[50]Baumann L., Cina M., Egli-Gany D., Goutaki M., Halbeisen F. S., Lohrer G. R., Ali H., Scott P., Low N. (2018). Prevalence of Mycoplasma genitalium in different population groups: systematic review and meta-analysis. *Sexually transmitted infections*, *94*(4), 255-262.
[51]BASHH (2018) *UK national guideline for the management of infection with Mycoplasma genitalium. July 2017*. Available online at: https://www.bashhguidelines.org/media/1182/bashh-mgen-guideline-2018_draft-for-consultation.pdf [Accessed 19.07.18]
[52]Department of Education (2018) New relationships and health education in schools. Available at: https://www.gov.uk/government/news/new-relationships-and-health-education-in-schools [Accessed 19.07.18]
[53]Holt M, Lea T, Mao L, et al. (2018) Community level changes in condom use and uptake of HIV pre-exposure prophylaxis by gay and bisexual men in Melbourne and Sydney, Australia: results of repeated behavioural surveillance in 2013-2017. *Lancet HIV*, 5 (8) Available at:

https://www.thelancet.com/journals/lanhiv/article/PIIS2352-3018(18)30072-9/abstract [Accessed 19.07.18]

[54]Sexting definition by the NSPCC. Available at https://www.nspcc.org.uk/preventing-abuse/keeping-children-safe/sexting/ [Accessed 08.10.18]

[55]The Police Foundation (2018) *A sexting surge or a conceptual muddle? The challenges of analogue law and ambiguous crime recording*. Available at: http://www.police-foundation.org.uk/2017/wp-content/uploads/2010/10/perspectives_on_policing_sexting_FINAL.pdf [Accessed 30.07.18]