Grampian Sexual Health Care Needs Assessment

Sexual Health Services for Young People in Grampian

Author: Jenni Strachan, Training Fellow (Public Health)
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Glossary

Abbreviation	Description
BBV	Blood-borne virus
COC	Combined oral contraceptive
EHC	Emergency hormonal contraception
F2F	Face to face
GBMSM	Gay, bisexual and other men who have sex with men
HIV	Human immunodeficiency virus
HCNA	Health care needs assessment
IUD	Intrauterine device
IUS	Intrauterine system
LA	Local Authority
LARC	Long-acting reversible contraception
MCN	Managed care network
MSM	Men who have sex with men
POP	Progestogen-only pill
PrEP	Pre exposure prophylaxis for HIV
RSHP	Relationships, sexual health and parenthood
SIMD	Scottish Index of Multiple Deprivation
STI	Sexually transmitted infection

Introduction

Sexual Health and Wellbeing

The World Health Organisation (WHO) defines sexual health as:

> *"…a state of physical, emotional, 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."*

(World Health Organisation (WHO), 2006)

Achieving good sexual health requires a range of different factors such as education and reliable information, access to high quality sexual health services and contraception, supportive environments, and positive sexual health and relationship cultures. Without these, poor sexual health can result and it can have a range of negative consequences for both individuals and society. These can include; sexually transmitted infections (STI's), unintended pregnancies, sexual violence, stigma, shame and poor mental health. In addition to these, poor sexual health results in significant cost to the NHS and society. It also feeds into wider health inequalities as we know poor sexual health is not experienced equally across the population. Therefore, it is important that we try to create environments conducive to good sexual health and wellbeing in our local population, with a focus on prevention being key.

Young People & Sexual Health in Scotland

Young people under the age of 25 are one of the most at risk groups from poor sexual health outcomes (Scottish Government , 2023). Between 2019 and 2022, cases of gonorrhoea in Scotland doubled in those under the age of 25 and continued to increase during 2023 (Public Health Scotland, 2024d). Chlamydia diagnosis in this age group have also been rising but are yet to reach pre-pandemic levels, as are testing rates (Public Health Scotland, 2024c). For the first time in a decade, teenage pregnancy rates in Scotland also showed an increase, mainly in those aged 17 to 19 years old. Rates increased across all Scottish Index of Multiple Deprivation (SIMD) zones, however in 2022 they were three times higher for those living in the most deprived areas compared to those in the least deprived areas (Public Health Scotland, 2024b). Abortion rates also rose by almost a tenth between 2022 & 2023 (Public Health Scotland, 2024). The highest rates overall were seen in the 20 to 24 age group, showing that young people are a key group requiring support. Like teenage pregnancy, abortion shows a strong correlation with deprivation, with rates in the least

deprived areas double that in the most deprived areas. This is also evident for repeat abortion, which are also increasing each year (Public Health Scotland, 2024).

About this Health Care Needs Assessment

Rationale & Scope

This health care needs assessment (HCNA) will address some of the findings and recommendations made by David Watkin in his population based *Health Care Needs Assessment: Sexual Health Services for NHS Grampian 2023* which highlighted the following:

- There is a reduction in the use of long-acting reversible contraception (LARC) in Grampian. The report recommended to examine wider contraception uptake and trends, and to explore effective methods of patient information, education and advertising in relation to contraception, especially in young people.
- There is a high incidence of both chlamydia and gonorrhoea in 15-24 year olds in Grampian and a need to focus on preventing, diagnosing and treating these infections.
- Like the rest of Scotland, Grampian is seeing an increase in abortion rates. This was not analysed by age in the previous HCNA but is available to service and MCN teams.
- There was a recommendation to consider outreach services for young people and to gather service user perspectives.

The above HCNA did not provide in depth analysis of issues specific to young people so there remain gaps in knowledge and understanding around this. It also didn't involve community engagement but did provide valuable corporate views which identified issues such as service access, service demand and staffing. Given the current national context regarding sexual health outcomes for young people under the age of 25, and some of the local issues identified in the 2023 HCNA, further work is needed to understand the specific issues young people face and how we can address these.

The scope of this health care needs assessment (HCNA) is the sexual health needs and sexual health services for young people under the age of 25 years old in Grampian. In particular, the document will focus on the following areas:

- Evidence relating to sexual health services & young people
- Sexually transmitted infections (STIs)
- Teenage pregnancy
- Teenage abortion
- Contraception

This document comprises of a literature review, epidemiological data, contraception data and NHS Grampian Sexual Health Service data. The report primarily focuses on specialist sexual health services and apart from contraceptive data, it does not reflect other sexual

health services that are available in Grampian. For example, those provided in pharmacies, GP's or other non-NHS organisations including charities. Due to availability of data, this HCNA will not report on STI's other than gonorrhoea and chlamydia and does not cover Blood Borne Viruses (BBV's).

Engagement work with young people regarding sexual health services had been planned as part of this HCNA but due to information governance issues, so far this has not been possible.

Aims and Objectives

The aim of the report is to identify the sexual health needs of people under the age of 25 years old in Grampian with regards to sexual health services. This information will then be used to identify areas for local sexual health service improvement.

The objectives of the report are to:

1. Review the current evidence in relation to sexual health service needs of young people through a literature review.
2. Describe the epidemiological data of sexual health in young people within NHS Grampian (noting the exclusions above).
3. Describe the current service provision of specialist sexual health services for young people in Grampian.
4. Identify any changes in need or demand for sexual health services in this population, particularly pre and post COVID-19 pandemic.
5. Identify any gaps between service need and service provision.
6. Make recommendations regarding any unmet need that is identified and future service delivery.

Methodology

This document provides an analysis of the available information regarding the current sexual health needs of the population, how service provision is meeting those needs, and what gaps exist. Throughout the analysis, the impact of the COVID-19 pandemic will be taken into consideration, acknowledging that some of these impacts may yet to be seen.

Both local and national data sources were used and where possible, national data was utilised for benchmarking purposes. Demographic data was taken from the National Records of Scotland and Scotland's Census 2022 data. Local epidemiological data was gathered from Illuminate Tableau, which includes TrakCare PMS, Apex Laboratory System, and Pharmacy Information System. This was supplemented with and benchmarked against national epidemiological data which was obtained from Public Health Scotland reports. Sexual health

service data was provided by NHS Grampian Sexual Health Service via NaSH, a national clinical electronic records system.

The methodology for the literature review can be found in Appendix 1.

Background

National Policy

High quality sexual health services play a key role in providing information, resources and support to young people so they can make informed choices about their sexual health. The Scottish Government has several strategic plans that emphasise the role of sexual health services and young people. *The Sexual Health and Blood Borne Virus Action Plan: 2023 to* 2026 highlights the need to ensure young people have access to clear and accurate sexual health and contraception advice. It also focuses on access to services as a priority area. Many of these themes are mirrored in the *Women's Health Plan.* In addition to these, Health Improvement Scotland have drafted 10 standards specifically for sexual health with the aim of:

- Improving access to sexual health care
- Reducing inequalities in sexual health outcomes
- Helping services to identify areas for improvement
- Helping services benchmark sexual health care

Standard 7 relates directly to young people and is as follows:

- Young people can access safe, high-quality and person-centred sexual health care which upholds their rights.

This is further broken down into 10 criteria covering areas such as access to contraception, partnership working, staff training and tailored support for vulnerable groups (Healthcare Improvement Scotland, 2022).

Local Policy

Sexual health and young people has been highlighted as a strategic priority for NHS Grampian and our partners in a number of plans. These local plans communicate how we will implement national plans at a Grampian level. NHS Grampian's Public Health Three Year Delivery Plan (2024-2027) focuses on People, Places and Pathways and notes implementation of *The Sexual Health and Blood Borne Virus Action Plan: 2023 to* 2026 across Grampian as part of this. Meanwhile, NHS Grampian Five Year Health Equity Plan (2024-2029) emphasises the significant health inequalities present in our local population and how we plan to overcome these. Both plans state a desire for greater citizen engagement and collaboration, as well as a focus on prevention and improving access to services.

NHS Grampian Sexual Health Service

NHS Grampian Sexual Health Service is the specialist sexual health service in Grampian and is based at the Health Village in Aberdeen City, with a further four satellite locations in Elgin (Moray), Banff (Aberdeenshire), Fraserburgh (Aberdeenshire) and Peterhead (Aberdeenshire). In addition to this, they also run outreach services in HMP Grampian and the Exchange service for Gay, Bisexual and other men who have sex with men (GBMSM). These satellite services are available on various days depending on need and staff availability.

A range of services are offered by the sexual health service including:

- Emergency contraception
- Abortion care
- Contraception including long acting reversible contraception (LARC)
- Community gynaecology
- Investigation of genital symptoms
- Testing, treatment and partner notification for STIs and BBVs including HIV, hepatitis B and hepatitis C
- HIV care
- Pre Exposure Prophylaxis for HIV (PrEP)
- Vaccinations for Hepatitis A, B, HPV and Mpox
- Specialist clinic for young people under 18
- Specialist clinic for GBMSM
- Service for sex industry workers
- Support, testing and care post sexual assault
- Outreach service for HMP Grampian residents
- Free condoms

At present, services are offered on an appointment basis only except for the young person's service which is for those under the age of 18 and Exchange clinic for GBMSM. The young person's service is available on a Tuesday and Thursday between 3:30 and 5:30pm on an appointment or drop-in basis.

As with most services during the COVID-19 pandemic, NHS Grampian Sexual Health Service had to adapt. All satellite clinics were closed and the service in Aberdeen City moved locations, with most appointments transitioning to virtual, Near Me appointments. Understandably, this had an impact on service access and engagement, particularly amongst young people. In a local survey aimed at young people during this time, only 16% of respondents would consider using a virtual appointment, with the main barrier against it being that they don't like being on video with someone they don't know. Instead, an in-person service was much preferred, followed by a telephone appointment (Cook, et al., 2021). All services have now resumed but there remain disparities between locations.

Between September 2022 & August 2023, 95% of face-to-face appointments took place at the Aberdeen Health Village, with only 4% in Moray and 1% in Aberdeenshire (Watkin, et al., 2023). Although telephone and virtual appointments have become mainstream following the pandemic and may be helpful for those in rural locations, there remain questions as to whether this is effectively meeting the needs of young people. Over the last 10 years the number of young people attending the dedicated young person's drop-in has reduced by more than half, a trend mirrored throughout most of Scotland (Hallwood, 2023). Therefore, there is a need to re-establish what local young people want from a sexual health service and how we can meet their needs.

Literature Review

Sexual Health Services and Young People

A systematic literature review was completed during March and April 2024. The search for the literature review was conducted by Lyn Mair, Clinical Liaison Librarian for NHS Grampian with the aim of informing this HCNA. Lyn also completed a title and abstract screening process based on the eligibility criteria, followed by a further screening of full text by myself (Jenni Strachan). The review focussed on increasing sexual health service uptake and improving sexual health outcomes in young people. It did this by appraising the evidence on sexual health service models for young people, barriers to accessing sexual health services for young people and advertising sexual health services for young people. Prior to this, Lyn had previously completed a literature search regarding influences on contraception use and non-use, on behalf of NHS Grampian's Public Health Manager. This has also been used as part of the evidence to inform this HCNA but is not part of the systematic literature review described below.

Methodology

The Population Intervention Comparator Outcomes (PICO) framework was used to help determine the key concepts and consequently the search terms for the literature. The literature methodology, including the use of PICO, the search strategy, eligibility criteria and data analysis and synthesis can be found in Appendix 1.

Following several rounds of review and analysis, a total of 63 studies were identified for inclusion in the review. All were published in English and most took place within the UK but some from America, Australia and other High Income Countries were included. The review comprised of 26 qualitative studies, 17 descriptive studies, 7 systematic reviews, 3 randomised controlled trials, 2 cluster randomised controlled trials, 2 scoping reviews, 2 mixed method studies, 1 integrative review, 1 realistic evaluation, 1 cross sectional study and 1 literature review. These were all published between January 2019 and March 2024, with studies conducted pre and post COVID-19 pandemic. This timeframe was selected due to the changing nature of services during this time and a need to review the evidence moving forward. Studies were conducted before, during and post COVID-19 pandemic.

Although three specific literature searches were performed using the key terms of 'models', 'barriers' and 'advertising', many studies covered elements of more than one search term and have therefore been presented together.

Sexual Health Service Models

During the COVID-19 pandemic, many sexual health services were forced to move to a virtual service delivery model, incorporating digital methods of contact with service users. However, this was done due to necessity and not necessarily evidence-based practice. Whilst many services have since reinstated post pandemic ways of working, there remains a need to understand what young people want from sexual health services going forward and if some of the adaptions made during the pandemic should remain in place.

In a systematic review exploring what young people in high income countries want from STI testing services, it was found that in-person services in settings such as sexual health clinics, GP clinics and specialty clinics were acceptable to young people (Gan, et al., 2021). Five studies in the review also concluded that online STI/HIV testing using home-based testing was viewed positively. In contrast, three studies observed that pharmacy based STI testing was not favoured by young people, possibly due to issues of confidentiality. The review found that young people wanted to have multiple options for service delivery depending on their preferences and situation. Gan et al also highlighted the importance of understanding the local context and particularly the differences in preference among subpopulations who may have differing needs. They concluded that further research was required to determine the preferences in subpopulations of young people such as those from sexual and ethnic minorities.

Whilst online home-based self-sampling had already been found to be acceptable to service users, their use greatly increased during the pandemic. Spence et al conducted a qualitative study looking at service users' perspectives of online postal self-sampling (OPSS) in England. This is where an STI testing kit is requested online and posted to a user's home address for self-testing. Once completed, the kit is then posted back free of charge and the results communicated to the user. The study sample involved 100 users, some of which were young people. Findings revealed that whilst OPSS was acceptable to users and they valued the privacy and reduced waiting times for appointments, it did not replace in-person services and the support they offer. This was particularly true for those that felt they were at a higher risk of having an STI (Spence, et al., 2023). Therefore, a risk assessment approach may be most beneficial as was found in a study conducted in Australia which used a self-completed online risk assessment tool for STI testing in young people (Groos, et al., 2021). The study found that testing rates matched well to the risk categories (high, medium and low) that young people had been assigned. Another novel way to deliver self-sampling involved vending machines installed in public places in Bristol, UK. Part of their target population was young people aged 16-25, as well as those from ethnic minority communities and men-who-have-sex-with-men (MSM). Interviews with users found that the

machines were easy to use, conveniently located and appreciated for providing quick access to testing, allowing the user to have control and peace of mind (Gobin, et al., 2023).

Most of the studies included in the literature review involved elements of digital technology in their service design and was a key theme that emerged. Examples included text messaging, WhatsApp, chat health messaging services, mobile applications, websites, social networks and the use of social media. In a scoping review looking at mobile health (mHealth) interventions, it was found that mHealth was effective at addressing knowledge and attitudes in relation to sexual and reproductive health however longitudinal studies are required to determine the long-term influence on behaviour (Isaacs, et al., 2024). Saragih et al also found that telehealth interventions showed positive outcomes in condom use and STI testing and may be important alternatives to in-person services. Whilst many sexual health interventions utilising digital technology show promising results, in a qualitative study involving sexual health nurses in England and young people aged 16-18 years old, both parties agreed they were only part of the solution and needed to be delivered alongside in-person services and integrated into the wider systems (Bennett, et al., 2023).

A final important theme that emerged for sexual health service models, was the need for services and sexual health interventions to be co-designed in partnership with young people for them to be relevant and relatable (Yarger, et al., 2024) (Aladin, et al., 2023) (Martin, et al., 2020). Several studies also highlighted the need for positive and holistic services which promote sexual wellbeing rather than focus on ill health (Martin, et al., 2020) (Shearn, et al., 2019) (Nolan, et al., 2024).

Key Points for Sexual Health Service Models

- Young people want in-person services in settings such as sexual health services, GP practices or specialist clinics. At home STI testing is also acceptable to young people but as an addition to in-person services and not alone.
- Digital service options show positive outcomes in addressing knowledge and attitudes to sexual health and behaviour but long term effects require further research.
- Young people want a range of service options and these need to be integrated into one system.
- There is a need for more positive and holistic sexual health and wellbeing services, with less of a focus on ill health and disease.
- Additionally, we need to understand local contexts and the sexual health needs of subpopulations.
- Services need to be co-designed and delivered with young people.

Barriers

A number of barriers exist on an individual and societal level that influence young people's ability to access sexual health services. In order to improve uptake in services, it is vital that we understand what these are and try to address them both locally and nationally.

In a UK based study, utilising both quantitative and qualitative methods to gather the views of 16-24 year olds on preference for STI screening, six key themes emerged (Jackson, et al., 2021). These were; stigma and embarrassment, knowledge of STI's and risk, what STI's to be tested for, where to get tested, how staff would treat them and waiting times. The need for staff to be non-judgemental was emphasised by young people and is a common theme seen across many studies in this literature review. In Gan et al's systematic review, they also highlighted the need for staff to be non-judgemental, friendly, respectful, compassionate and culturally competent. Embarrassment was a key barrier to young people seeking testing and ways to reduce this included short waiting times, having testing options (including home testing), building familiarity between services and young people, and ensuring staff are appropriately trained and knowledgeable. On a societal level, stigma was viewed as another key barrier to accessing sexual health services. They found ten studies stating young people were concerned that STI testing would reveal that they were sexually active, six of these studies suggested young people were worried about their parents finding out (Gan, et al., 2021).

A further key barrier often noted is young people's lack of STI knowledge, understanding and risk. This results in lower STI testing (Gan, et al., 2021). Although not specifically addressed in this literature review, many of the studies included an educational element to their design and highlighted the need to improve sexual health education and awareness of local services.

As well as the barriers noted above, several studies also noted barriers in specific subpopulations of young people. In a UK based qualitative study involving young black Caribbean adults, three themes emerged including; culturally embedded stigma, historically embedded mistrust, and lack of knowledge relating to STI's and services (Heath, et al., 2024). The authors highlighted the role of religious and cultural beliefs which reinforced these issues and made it harder for this population to seek support. A further UK based qualitative study explored barriers to STI and HIV testing in young black sub-Sahara African (BSSA) communities. It found HIV test embarrassment, limited knowledge, perceived risk taking, sexual health staffs' attitudes, perception of HIV as a death sentence, and general HIV stigma prevented BSSA communities from testing and impacted on their mental health and wellbeing (Nyashanu, et al., 2020). They stressed the importance of sexual health interventions being more culturally sensitive to reduce the impact of HIV stigma in such communities.

Other subpopulations specifically identified in the literature included women and the specific barriers they face. For example, one qualitative study explored the influence sexual culture in school had on women's sexual health in the future (Fraser, 2023). They found that most women experienced a negative sexual culture when aged 16-18 at school, stating objectification, misogyny and a culture of slut shaming were common. The author found this influenced attitudes towards STI testing and treatment, resulting in lower uptake and avoidance. Negative sexual culture was also associated with reduced female sexual agency and low self-esteem.

A final subpopulation identified in the literature was homeless young people, where a nurse-led outreach service had been delivered over 3 months (Chorlton, et al., 2022). Many of the same common barriers were described in this group, including embarrassment and perception of risk. Service users once again highlighted the importance of friendliness and non-judgement. Many also stated they wouldn't have bothered to access the service if it had not come to them, highlighting the need for outreach work in this population and the importance of building relationships with those who are less likely to access mainstream services.

Key Points for Barriers

- There remain a number of individual and societal barriers young people face when accessing sexual health services and these need to be addressed in service design and delivery.
- Embarrassment, stigma, fear of being judged and a lack of knowledge and understanding regarding sexual health are common.
- However, there are other more complex barriers faced by subgroups such as ethnic minorities, woman, and homeless young people that also need to be understood and addressed to reach these more vulnerable populations.
- Services need to work with communities to address negative sexual health cultures and ensure services are culturally sensitive.

Advertising

A total of 18 studies were found to cover advertising of sexual health interventions to young people. They covered a range of methods including text message, social media, online advertisements, mobile applications, film and mass media.

In a systematic literature review looking at the effectiveness of digital sexual health interventions for young adults between 2010 and 2020, they found the most common promotional interventions were interactive websites, text messaging, phone calls, online education programmes and mobile applications (Sewak, et al., 2023). 79% of the

interventions featured preventative sexual health behaviours, contraception and sexual health services. 75% of the studies were effective in changing sexual health behaviours and cognitive perceptions. However, the digital only interventions were not more effective than those using a range of different formats (Sewak, et al., 2023).

A more traditional form of advertising used in health promotion has been mass media campaigns, but their effectiveness has been mixed. In a recent evidence review, Stead et al found that there was moderate evidence that mass media campaigns can influence sexual health-related behaviours and use of services. They noted that longer and more intensive campaigns, as well as targeted campaigns to particular population groups are most effective (Stead, et al., 2019).

The use of social media has drastically increased in recent years, with young people being one of its main users. For that reason, it is often seen as an attractive way of advertising to young people yet its use in sexual health remains relatively new. In a study looking at young peoples' perceived benefits and barriers of social media use for sexual health promotion; entertainment, fast and easy access, interaction and platform specific features were found to be frequently reported benefits (Engel, 2023). Despite this, young people reported concerns regarding privacy, lack of control, unsuitability of social media for sexual health issues and fast paced change in technologies as barriers to its use.

As well as the method of advertising, the way in which information is provided, and the content is also very important when designing effective marketing. A systematic literature review on social marketing interventions to increase STI testing among young people found that most of the interventions used minimal text, included photograph-based images and featured a range of tones such as serious, humorous, positive, reassuring, empowering and informative (Riddell, et al., 2024). The authors suggested that social marketing principles could be more effective than specific elements of visual design. A further study examining the online sexual health information adolescents seek highlighted the importance of providing not only medically accurate and comprehensive information but also information on pleasure in sexual health, guidance on the social and emotional aspects of sexual health and for education to be inclusive for all (Zori, et al., 2023).

Finally, the importance of involving young people was once again stressed. Two of the studies highlighted the beneficial use of peers to promote sexual health services (Muraleetharan & Brault, 2023) (Lightfoot, et al., 2024) and a further three studies emphasised the importance of co-production when producing promotional materials aimed at young people and sexual health services (Chernick, et al., 2022) (Nielsen, et al., 2020) (Aventin, et al., 2019).

Key Points for Advertising

- Digital advertising of sexual health interventions are effective but not more so than blended formats.
- There is moderate evidence that mass media campaigns can influence sexual health behaviour and service use but longer, intensive, or targeted campaigns are most effective.
- Social media has several benefits for sexual health promotion but a number of barriers such as privacy also exist and need to be addressed.
- Social marketing interventions using limited text, photographic images and a range of tones can be effective at increasing STI testing among young people.
- There is a need to provide information on the emotional and social aspects of sexual health and sexual pleasure that is inclusive for all young people.
- Co-production and the use of peers are important in promoting sexual health services.

Contraception

In September 2023, a literature review looking at influences on contraception use and non-use was completed and a total of 42 studies were found. These comprised of 20 qualitative studies, 8 quantitative studies, 7 descriptive, 3 systematic reviews, 2 scoping reviews, 1 mixed methods study and 1 randomised trial. The review was particularly interested in online and digital sources of information, such as social media and mobile phone applications. Although the search strategy did not specify young people, given 96% of 16-24 year olds in the UK use social media, the findings remain relevant to this population (Prescott, 2017).

Most people will make decisions about contraception prior to speaking to a health care professional and the majority will find this information online. Many of the studies included analysed the use of social media and the effect it had on contraception use and the information it provided. It was found that social media platforms often depicted inaccurate information, fake news and portrayed negative views or side effects from contraception use (Seidman & Gilboa, 2018) (Nguyen & Allen, 2018) (Wu, et al., 2023) (Hamilton, 2021) (Merz, et al., 2021). However, long-acting reversible contraception (LARC) was more likely to be viewed positively compared to short-acting methods (Merz, et al., 2021) (Nguyen & Allen, 2018) (Kohler, et al., 2023). Despite this, there remain common misconceptions regarding LARC, with women believing LARC inhibits fertility long after stopping its use and removes women's autonomy over fertility (Johansson, et al., 2023) (Linton, et al., 2023). It is vital that healthcare professionals and sexual health services address these misunderstandings with women so they can make informed choices regarding contraception use.

A further area worth noting from this review is the trend in women moving away from hormonal based contraception and the role online information sources have to play in this. In a content analysis of social media influencers YouTube videos, it found that these mainly focused on the discontinuation of hormonal birth control (Pfender & Devlin, 2023). Social media has also been found to re-shape views regarding the contraceptive pill and contribute to the undermining of health professionals (Schneider-Kamp & Takhar, 2023). In practice, this may mean women are less likely to trust the advice given by a health professional despite this being evidence-based, and more likely to follow advice given on social media platforms.

Alongside the rise in online content negatively depicting hormonal contraception methods, there has been a rise in the promotion of fertility tracking apps. Many are not formulated on evidence-based fertility awareness-based methods and do not include warnings to users about the need for barrier contraception if wanting to avoid pregnancy and STI's (Duane, et al., 2016). Women's motivations for using such apps include a desire to use a non-hormonal based method, with a focus on them being more 'natural', wanting to understand their own bodies better, alongside the idea of gaining 'control' and a feeling of liberation (Grenfell, et al., 2021) (Dudouet, 2022). One of the most well-known apps, Natural Cycles, launched in 2017 and has relied heavily on the use of social media influencers as part of their advertising scheme. It has been discredited for often displaying perfect use rather than typical use data when promoting the efficacy of the app, as well as its lack of rigorous and independent evaluation. There also remains a lack of regulation relating to social media and influencers content, unlike other forms of advertising, leaving users (particularly young women) vulnerable to inaccurate information (Hough, et al., 2018).

Key Points for Contraception

- Nearly all young people use social media and many will look for information online and make decisions regarding contraception before speaking to a healthcare professional.
- Social media often depicts a negative view of contraception use, spreading inaccurate information, fake news and with a focus on side effects.
- There remain common misconceptions regarding LARC that need to be addressed in order to improve uptake.
- There is a trend in women moving away from hormonal based contraception, with social media promoting this concept and evidence that it is re-shaping views.
- There has been a rise in fertility tracking apps but many are not evidence based and do not provide warnings that barrier contraception is needed to avoid pregnancy and STI's.
- Social media influencers are being used in marketing campaigns promoting fertility tracking apps but sometimes without accurate information being provided and with no regulation.
- Women want to feel they have control over their fertility and have access to accurate information that allows them to make informed decisions regarding contraception.

Grey Literature

As well as the 63 studies identified in the search strategy, the search methodology also included a search of grey literature including websites, reports, government websites etc. This identified several valuable resources such as campaigns and reports from other Scottish and English sexual health services. A list of these resources can be found in Appendix 2.

Of particular note from the grey literature search was the 2021 CONUNDRUM study, which provided invaluable insights into young people's sexual health and contraception choices in Scotland. The study involved over 2,000 16-24 year olds and showed that most sexually active young people had never tried to access STI testing at a GP or sexual health service and almost half didn't know where to access free condoms locally. Of those that had tried to access services, one in three had found it hard to get an appointment for contraception or STI testing with long waiting times, stigma about usage, and lack of services cited as key barriers. Young people stated a preference for in-person specialist sexual health services and did not want to attend pharmacy for contraception. The study asked young people about contraception use and found the pill (53.9%), condom (19.7%) and implant (10.9%) were the most popular methods at that time. However, there was a general feeling that young people's main concern in sexual relationships was avoiding pregnancy and not STI's. In fact, less than two-thirds had used a condom the first time they had sex with their last

partner. As well as this, just under 50% had used the withdrawal method at some point and 37.3% had used emergency contraception. Fertility and period tracking apps were also used by 21.6% but for most these were not seen as a method of contraception. Young people conveyed that conversations about contraception with partners were difficult and far from normalised. Some young women reported frustration that the responsibility of contraception fell to them to research and access, and the potential impact it had on their bodies.

Appraisal of the Evidence

Critical Appraisal Skills Programme (CASP) checklists were used to help guide the appraisal of the studies identified in the literature review and highlighted some of the following limitations.

The review focused on studies conducted in high income countries and with publications in English as the only accepted language. A moderate number of the studies included were conducted in the UK but very few were specifically related to Scotland and therefore caution needs to be made when drawing inferences between study populations and that of the local Grampian population. As well as different population demographics and characteristics, there are likely to be other factors such as healthcare systems, cultures and political systems which influence sexual health behaviour and services. Having said that, several studies from different contexts found key themes and similar results suggesting there is duplication of findings and commonalities across populations despite these differences.

Most of the studies included were qualitative in nature which allows for richer and more descriptive data and enables researchers to explore areas such as views and attitudes. Given the topic of the literature search, it isn’t surprising many were of this type. However, alone they are not sufficient to make generalisable population-based summaries and ideally need to be interpreted alongside quantitative data. Some of the studies also had limited information regarding their methodology and this needs to be improved for findings to be robust and reliable.

As stated in the methodology, the literature search used a relatively short timeframe, within the last five years, to focus the search results. This was to allow for the changing landscape in sexual health services before and after the pandemic, but it is possible that in doing so other relevant information has been missed in studies conducted in previous years.

Gaps in the Evidence-Base

Following the literature review, a number of gaps in the evidence emerged and therefore cannot fully inform this HCNA. This may reflect the complexity of conducting research in sexual health services with young people and the time-frame of the literature search. Although comprehensive published research was not identified on these topics, that does not mean that anecdotal evidence and local knowledge does not exist and cannot be used

to inform service delivery. Future research should focus on ensuring collaboration and coproduction with young people so that findings are truly applicable to this population.

Some of the evidence gaps identified are:

1. Sexual health service model preferences in subpopulations of young people, such as those from sexual and ethnic minorities.
2. Novel models of sexual health services/STI testing and their evaluation, particularly in those harder to reach populations.
3. Local research to help explore and understand cultural and context specific issues and how to address them.
4. How to overcome the stigma and negative sexual culture that remains at a societal level and specifically within certain subpopulations such as ethnic minorities and women.
5. How we can meet the needs of young people wanting to access reliable and accurate information online in a way that is appealing and safe for them.
6. How we overcome the barriers and misconceptions women describe in relation to LARC.
7. How to utilise social media to promote sexual health & wellbeing services to young people.
8. The lack of regulation relating to advertising on social media and its impact on the sexual health beliefs and behaviours of young people, as well as how to resolve this.

Demographics

The mid-2023 population estimate for Grampian was 582,300, this is slightly above the 581,300 that was recorded in the 2022 Census (National Records of Scotland, 2024). In line with the rest of Scotland, 51% of the population in Grampian are female and 49% male. This is similar across all three Local Authority (LA) areas in Grampian (Aberdeenshire, Aberdeen City & Moray). 45% of the population live in Aberdeenshire, 39% in Aberdeen City and the remaining 16% in Moray.

NHS Grampian covers an area of over 8,700 square kilometres, consisting of urban environments (Aberdeen City), as well as rural and remote areas in Aberdeenshire and Moray. This provides challenges in service delivery and equity.

Table 1 (below) provides Census 2022 rounded population estimates for young people aged 13-24 years old in Grampian.

Age	Aberdeen City	Aberdeenshire	Moray	Grampian
13	2154	3256	1104	6514
14	2122	3266	1127	6515
15	2113	3184	1046	6343
16	1902	3029	1069	6000
17	1898	2913	1042	5853
18	3315	2415	817	6547
19	3878	2303	797	6978
20	3708	2088	789	6585
21	4029	2165	848	7042
22	4088	2291	973	7352
23	3679	2160	901	6740
24	3583	2140	1003	6726

Table 1: Number of residents aged 13-24 years old by local authority area, Scotland's Census 2022.

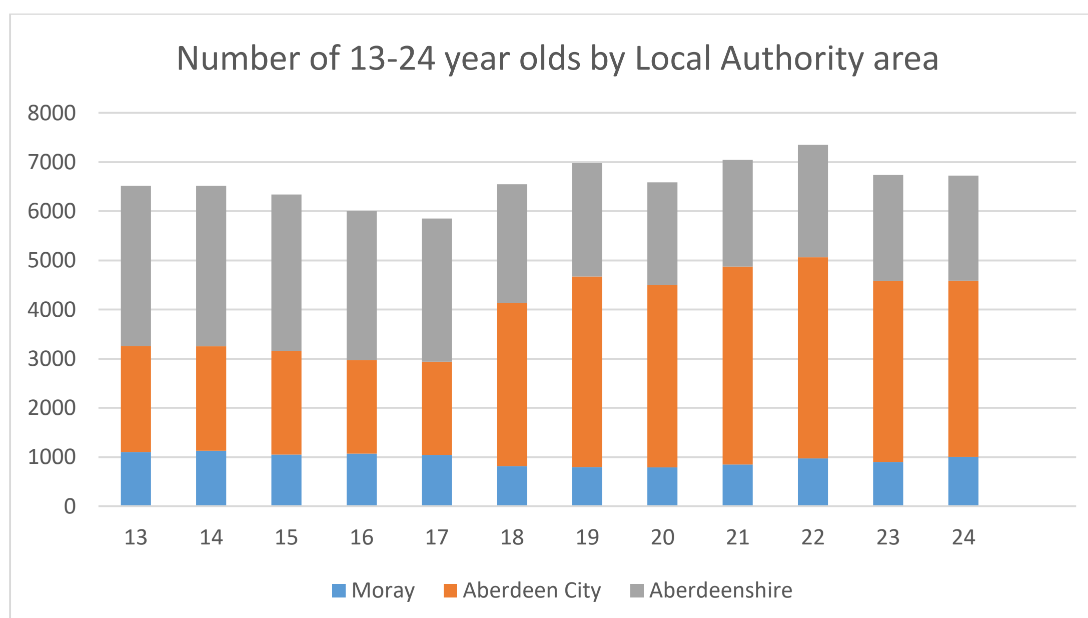

Figure 1: Number of 13-24 year olds by local authority area in Grampian, Census 2022 rounded population estimates.

About half of all 13-17 year olds reside in Aberdeenshire, followed by 33% in Aberdeen City and 17% in Moray (Figure 1). However, the LA area distribution then shifts in those aged 18-24, with the greatest proportion (56%) residing in Aberdeen City, followed by 32% in Aberdeenshire and 12% in Moray. This is likely to reflect the number of Universities and Higher Education establishments which exist in Aberdeen and therefore the additional student population in this age bracket. It may also show migration to the city for work purposes. These changes in population distribution are important to note when it comes to sexual health service provision and resource allocation.

As well as age and LA distribution, it is important to examine and understand other key population characteristics which may influence sexual health outcomes in young people. Unfortunately, Grampian level data was not available for many topics, however national surveys such as the Family Resources Survey and the Census can provide us with useful insights. For example, in 2021/22, just over a quarter of people in Scotland reported having a physical or mental disability (Department for Work and Pensions, 2023). Also, according to the 2022 Census, 12.9% of people in Scotland were from a minority ethnic background, 3.1% of people identified as gay, lesbian or bisexual and 51.1% stated they had no religion (Scotland's Census, 2024). Of note, Aberdeen City had the highest Polish population in Scotland at 4.4%, with this rising to 13% in the Tillydrone/Seaton and Old Aberdeen area. Aberdeen is also home to the largest Nigerian population in Scotland. Furthermore, Grampian has a large number of asylum seekers and refugees from many different countries. Finally worth noting, Grampian has one prison (HMP Grampian) which accommodates residents under the age of 25.

Epidemiology

Sexually Transmitted Infections

Chlamydia trachomatis

Epidemiological data on Chlamydia trachomatis was taken from the APEX Laboratory System, via Illuminate Tableau and covered the time period from February 2018 to December 2023. Both the under 20 year old and 20-24 year age bracket are presented in Figures 2 & 3 below. Local Authority data is categorised based on patient address.

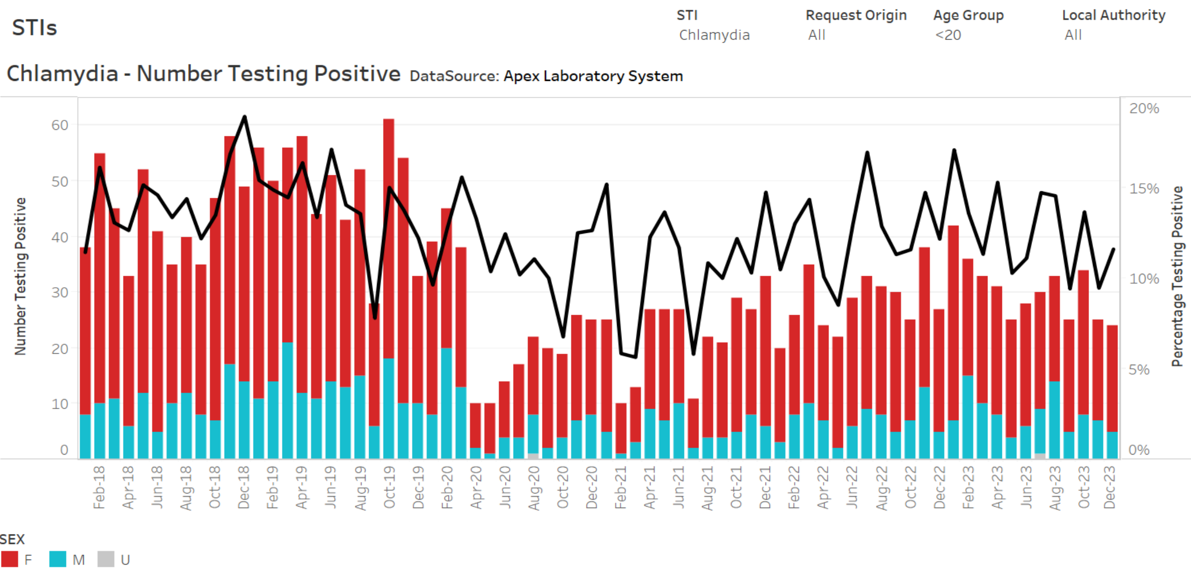

Figure 2: Total number and percentage of tests positive for Chlamydia in those under 20 years in Grampian, 2018-2023. Female patients are shown in red and male patients are shown in blue.

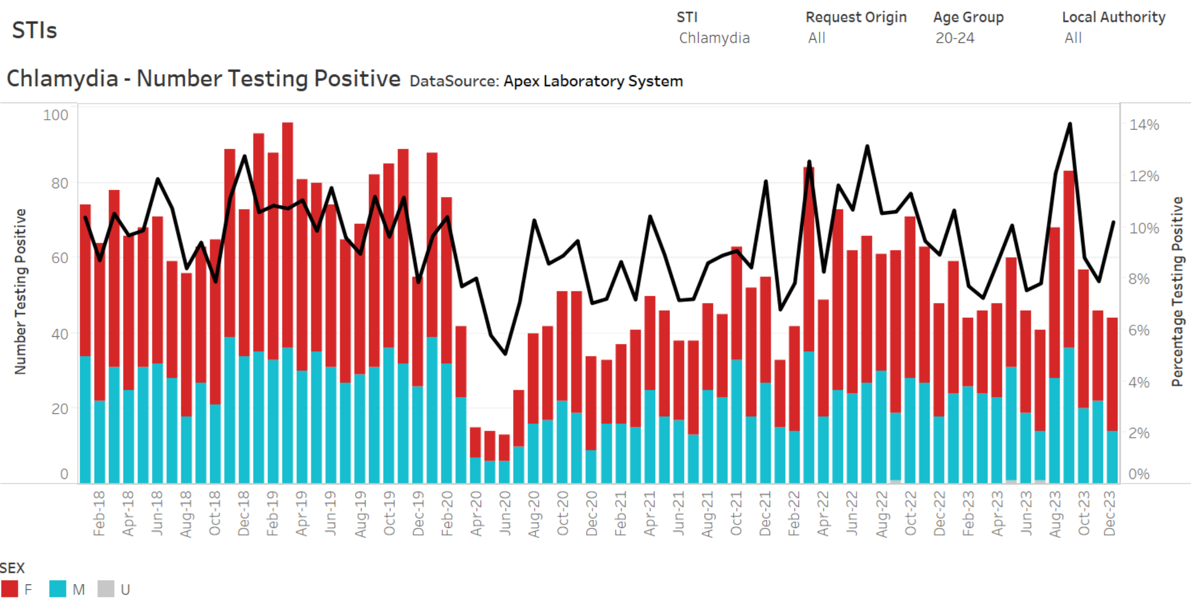

Figure 3: Total number and percentage of tests positive for Chlamydia in those 20-24 years in Grampian, 2018-2023. Female patients are shown in red and male patients are shown in blue.

Between 2018 and 2019, the number of positive chlamydia tests increased in both age groups but the numbers were far greater in the 20-24 year old category (Figures 2 & 3). Then in 2020/2021, on the background of the COVID-19 pandemic, numbers almost halved due to a reduction in testing. However, over the last few years we have seen them steadily increase again with 340 positive tests in 2022 and 366 in 2023 in the under 20 age group, and 714 positive tests in 2022 and 642 in 2023 in the 20-24 age group. Despite these increases, numbers of positive tests have still not reached those seen pre-pandemic. This is in keeping with national trends showing lower incidence levels in 2023 compared to those pre-pandemic (Public Health Scotland, 2024c). When analysing data by Local Authority, Aberdeen City accounts for the highest percentage of chlamydia tests at 82% in both age groups, with Aberdeenshire ranging from 11-12% and Moray 4-6%.

As can be seen from Figures 2 & 3, women consistently account for a greater number of positive tests compared to men in both age groups although it is more pronounced in the under 20 than the 20-24 year age bracket. In 2023, 73% of positive chlamydia tests in those under the age of 20 were in females compared to 56% in the 20-24 year age bracket. National figures also show that historically women under the age of 25 are far more likely to be diagnosed with chlamydia compared to men (Public Health Scotland, 2023b). This may be because young women are far more likely to attend specialist sexual health services, especially compared to heterosexual men (Public Health Scotland, 2024c).

NHS Board	Men Number	Men Rate per 100,000	Women Number	Women Rate per 100,000	All number	All rate per 100,000
Ayrshire and Arran	174	924	366	2046	540	1470
Borders	63	1137	116	2234	179	1668
Dumfries and Galloway	68	980	126	1961	194	1452
Fife	131	595	234	1060	365	828
Forth Valley	151	843	320	1812	471	1324
Grampian	366	1100	594	1814	960	1454
Greater Glasgow and Clyde	748	978	1275	1672	2023	1325
Highland	134	817	241	1724	375	1234
Lanarkshire	245	654	476	1316	721	979
Lothian	540	926	1024	1641	1564	1296
Orkney	*	506	6	662	11	580
Shetland	6	489	12	1116	18	782
Tayside	268	1074	492	2004	760	1535
Western Isles	*	348	7	666	11	500
Scotland	**2903**	**903**	**5289**	**1661**	**8192[1]**	**1280**

Table 2: Laboratory confirmed diagnoses of Chlamydia trachomatis infection and rate per 100,000 population by NHS board and gender in those aged <25 years, Scotland, 2023.

According to national data, in 2022 Grampian had the second highest chlamydia infection rate per 1000 population in those aged under 25 (Public Health Scotland, 2023b). However, by 2023, Grampian was the fourth highest but both the rate per 100,000 in women and men was higher than the national average (Table 2 above) (Public Health Scotland, 2024c). The latest national report suggests that testing levels in specialist sexual health services are now similar to pre-pandemic levels although this isn't the case for those under the age of 20, indicating targeted work needs to be done in this age group (Public Health Scotland, 2024c). A national STI testing campaign was already run in 2023/24 following a rise in both chlamydia and gonorrhoea. However, local work targeting this age group could be conducted. This could involve increasing promotion of services, increasing availability of testing both in-person and online, focus on prevention, such as increasing the use of condoms and most importantly involve collaboration with young people.

Neisseria gonorrhoea

Epidemiological data on Neisseria gonorrhoea was taken from the APEX Laboratory System, via Illuminate Tableau and covered the time period from February 2018 to December 2023. Both the under 20 year old and 20-24 year old age bracket are presented in Figures 4 & 5 below. Local Authority data is categorised based on patient address.

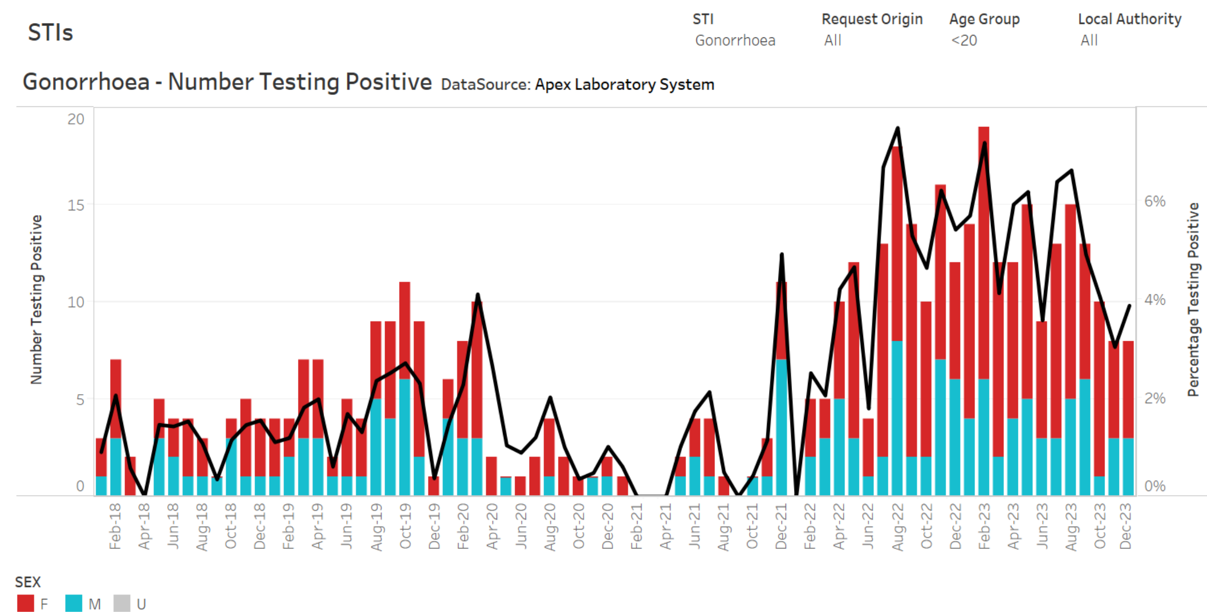

Figure 4: Total number and percentage of tests positive for Gonorrhoea in those under 20 years in Grampian, 2018-2023. Female patients are shown in red and male patients are shown in blue.

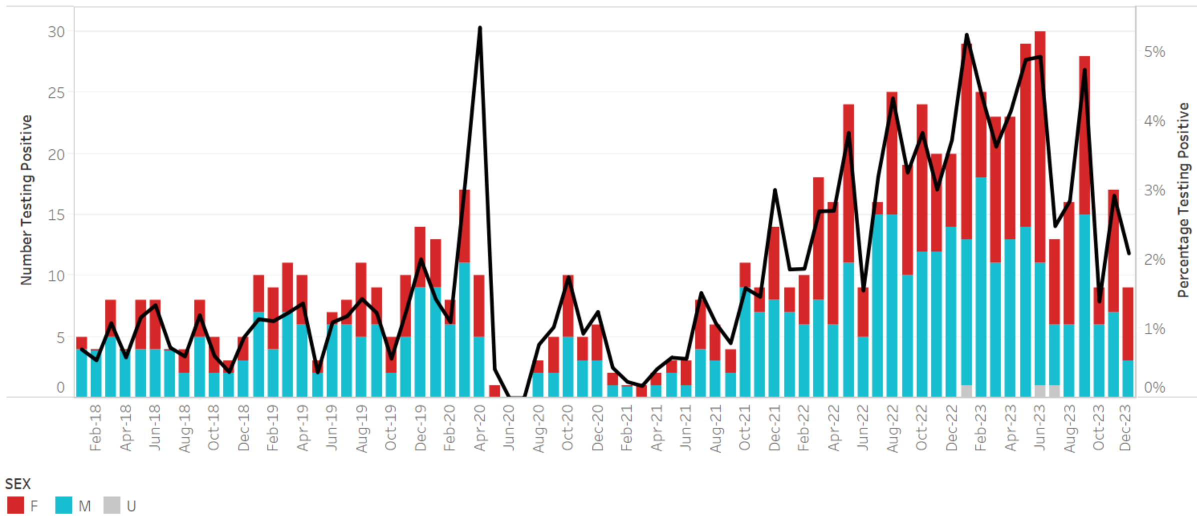

Figure 5: Total number and percentage of tests positive for Gonorrhoea in those 20-24 years in Grampian, 2018-2023. Female patients are shown in red and male patients are shown in blue.

Between 2019 and 2023, gonorrhoea cases in Grampian in the under 20's age group increased by 105% rising from 72 to 148 cases (Figure 4). This pattern was also seen in the 20-24 year age group who saw an even greater increase from 107 cases in 2019 to 251 in 2023, resulting in a 134% increase (Figure 5). Like Chlamydia, Aberdeen City saw the highest percentage of tests across both age groups, ranging between 86-87%, compared to 10-11% in Aberdeenshire and 4% in Moray. This is significantly different to the population distribution of young people across Grampian.

Nationally in 2023, the highest number of people testing positive for gonorrhoea were those aged under 20, followed by those aged 20-24 years old (Public Health Scotland, 2024d). Despite this, testing in Scotland amongst the under 25 year old age group remains lower than it was in 2019, unlike other age groups (Public Health Scotland, 2024d). The increase in cases across Scotland was thought to be partly due to increased testing since the pandemic, undiagnosed cases during the pandemic and asymptomatic carriage leading to further transmission (Public Health Scotland, 2023a).

In contrast to gonorrhoea infections in all age groups, where men account for most infections, in the under 25 age group more females test positive for the infection than men (Public Health Scotland, 2023a). In 2023, 71% of those testing positive in the under 20 age bracket in Grampian were female compared to 53% in the 20-24 year age group. This appears to be an increasing trend as in 2018 only 64% of under 20's testing positive for gonorrhoea were female and 35% in the 20-24 year age group. Nationally, in 2023, 77% of all gonorrhoea diagnosis were in females under the age of 25 compared to 39% of men (Public Health Scotland, 2024d). Previous national increases in gonorrhoea cases were attributed to the GBMSM population however there is now an increase in heterosexual men

and women testing positive nationally and therefore this may be contributing to the increase in female infections.

Due to unprecedented numbers of gonorrhoea cases across Scotland, Public Health Scotland established a National Incident Management Team (IMT) with NHS Boards part of the membership. A Safer Sex campaign was run between July and November 2023, targeting young people through social media, ads and posters. This may have led to further testing and consequently greater positive tests both locally and nationally.

To conclude, the number of positive chlamydia and gonorrhoea infections in young people under the age of 25 has increased over the last few years following a significant reduction during the COVID-19 pandemic. Despite recent increases, chlamydia infections are yet to reach levels seen pre-pandemic whilst gonorrhoea infections have seen a dramatic increase in numbers, particularly in the 20-24 year old age bracket. However, most recent data for gonorrhoea suggests a decreasing trend may be apparent since late 2023 (Public Health Scotland, 2024d). In both infections, most diagnosis are in women under the age of 25 however this may be skewed by the lower number of heterosexual men presenting at sexual health services for testing and therefore may represent under-ascertainment in this population. In addition to this, women are likely to have greater opportunities for testing outside of sexual health services.

A further important factor worth appraising is the distribution of positive tests across the three LA areas in Grampian evident for both infections and age groups. The majority of tests for both infections were in those living in Aberdeen City. However, when we compare this to the demographic data, even in the older age groups, Aberdeen City only accounts for around 55% of all 20-24 year olds and far less in the younger age group. Given the demographic distribution of young people across the LA areas, we would anticipate higher numbers of tests from Aberdeenshire and Moray. There may be several reasons for this such as differences in sexual behaviour and transmission rates in the more densely populated areas (Aberdeen City) compared to those more rural (Aberdeenshire & Moray). For example, the city may provide greater opportunity for social and recreational activities, particularly those associated with the night time economy such as bars and nightclubs where alcohol or drugs may be consumed and there is a higher risk of unprotected sexual activity. Aberdeen City also has several Universities and higher education establishments which again may increase the number of opportunities for young people to meet. Another possible explanation is differences in the barriers young people face such as stigma. Despite these possibilities, such figures could also suggest that STI testing may be suboptimal in Aberdeenshire and Moray due to issues such as awareness of service or access.

Teenage Pregnancies

Epidemiological data on teenage pregnancy across Grampian was taken from TrakCare PMS, via Illuminate Tableau and covered the time period from Q1 of 2012 to Q1 of 2024. Teenage pregnancy are those that take place in women aged 15-19.

For the last decade teenage pregnancy has been steadily falling in Grampian and in 2021 the teenage pregnancy rate was the lowest it had been at 19.12 per 1000 women aged 15-19. This picture had also been seen nationally (Public Health Scotland, 2023c). However, since then we have seen a shift in this trend with the rate increasing by almost a quarter to 23.75 in 2023 (see Figure 6 for details). Teenage pregnancy rates are also now rising nationally (Public Health Scotland, 2024b).

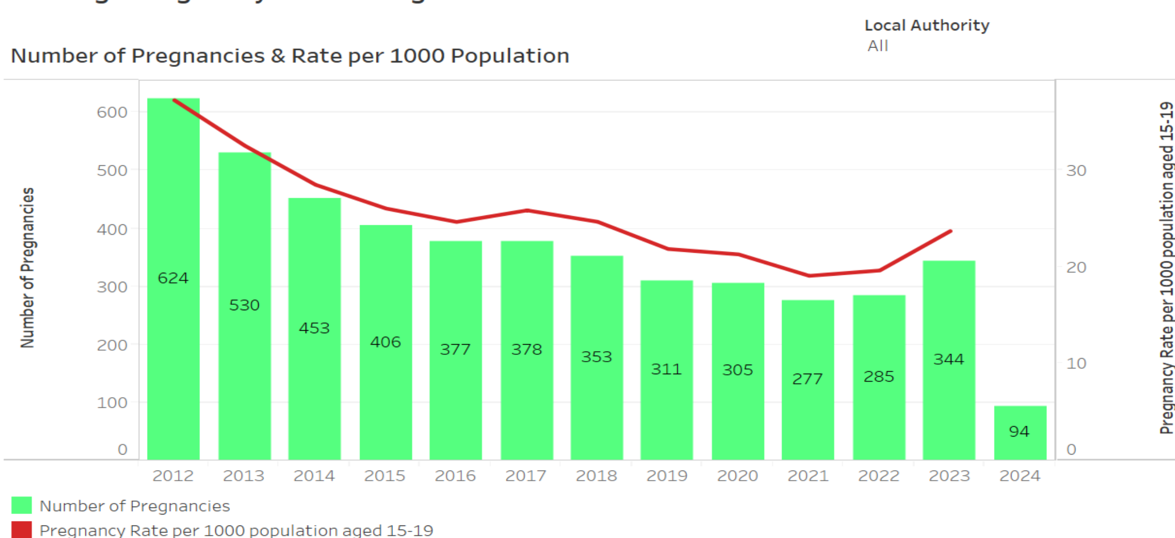

Figure 6: Total number and rate of teenage pregnancies in Grampian, Q1 2012-Q1 2024. Red line shows teenage pregnancy rate (teenage pregnancies per 1000 women aged 15-19 years)

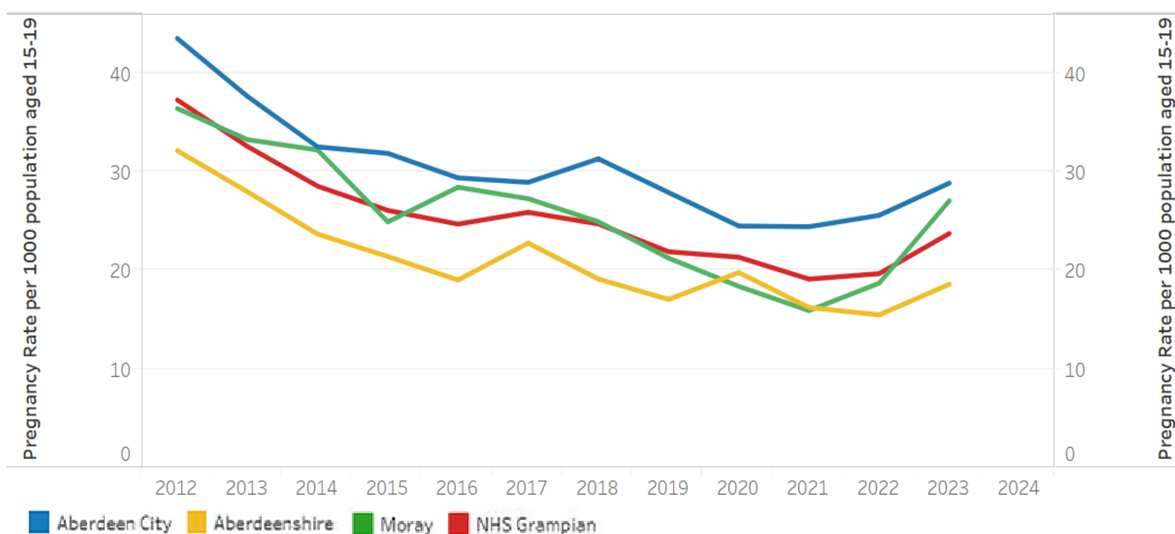

Figure 7: Teenage pregnancy rates by Local Authority area, 2012-2023.

As can be seen in Figure 7, all Local Authority areas in Grampian have witnessed this increasing trend however Moray shows a steeper increase than the other two LA areas. Although Aberdeen City has the overall highest rate of teenage pregnancy in 2023 at 28.86 per 1000 women aged 15-19, Moray is not far behind at 27.07. Between 2021 and 2023, Moray saw a 70% increase in teenage pregnancy rates while Aberdeen City and Aberdeenshire increases were far more modest. In fact, Aberdeenshire consistently has a much lower rate of teenage pregnancy than the other two LA areas despite having just over the same number of residents aged 15-19 as Aberdeen City. This may be accounted for in the geographical differences between the two LA areas, with Aberdeen City being far more densely populated and covering a much smaller area while Aberdeenshire is far larger and more sparsely populated.

If we analyse this further, we can see that specific areas in each LA vary considerably in teenage pregnancy rates. Figure 8 below maps teenage pregnancy rates by intermediate zone between 2013 & 2023. It shows that there are two intermediate zones in Aberdeen City (Torry East & Heathryfold and Middlefield) and one in Aberdeenshire (Peterhead Harbour) with a teenage pregnancy rate greater than 80. A further 10 of those in the 50-80 rate bracket are in Aberdeen City, with two in Aberdeenshire (Fraserburgh) and two in Moray (Buckie & Elgin). These areas directly correlate with the most deprived areas in Grampian according to the Scottish Index of Multiple Deprivation (SIMD, 2020). In 2023, the teenage pregnancy rate in the most deprived SIMD quintile was more than three times higher than the teenage pregnancy rate in the least deprived SIMD quintile in Grampian.

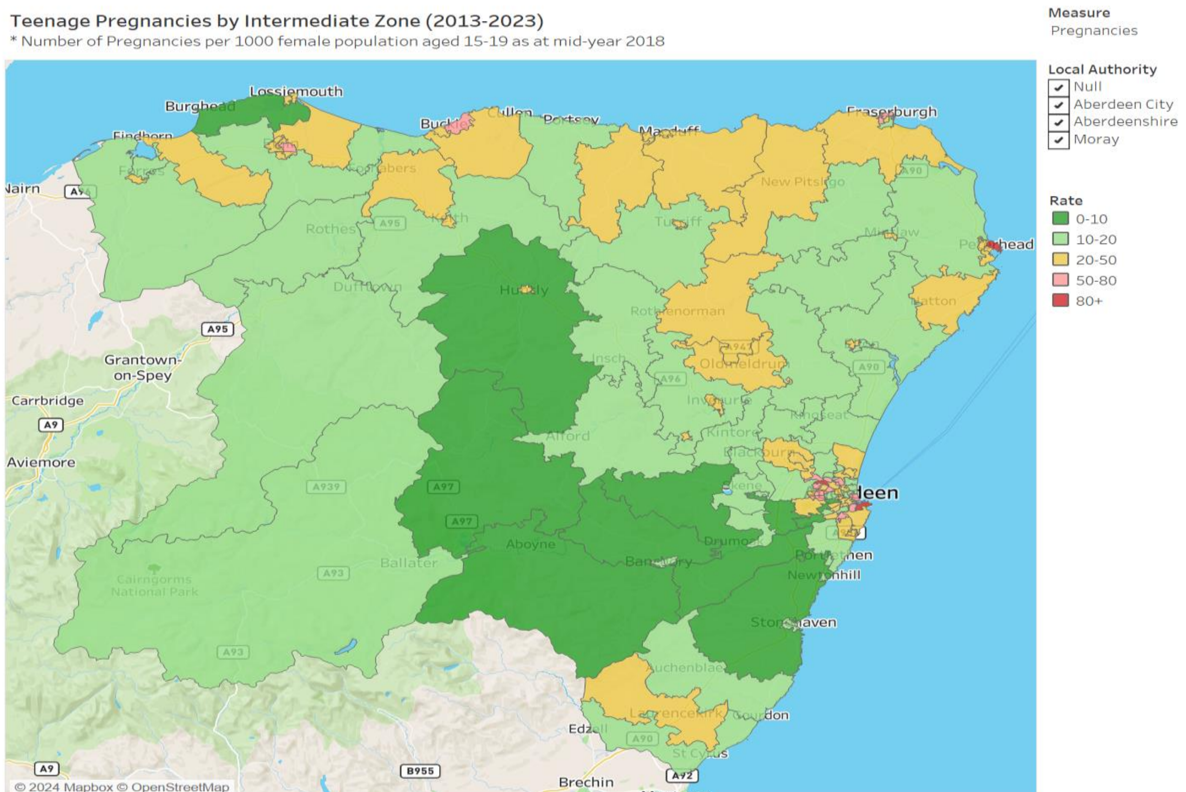

Figure 8: Map of teenage pregnancy rates by Intermediate Zone in Grampian, 2013-2023.

National statistics on teenage pregnancy are available up until 2022 and cover all women that conceive under the age of 20. This is slightly different to the 15-19 age definition used in local Grampian figures, therefore direct comparisons cannot be made. National statistics show that the teenage pregnancy rate for Grampian in 2022 was 24 compared to a Scottish rate of 27.1 per 1000 women (Public Health Scotland, 2024b). In 2022, more than half of all Scottish teenage pregnancies ended in abortion which is very similar to Grampian with just under 60% of teenage pregnancies in 2023 ending in abortion. Research has shown that pregnant women from the most deprived areas are more likely to deliver than terminate their pregnancy. Meanwhile, those from the least deprived areas are more likely to terminate than deliver (Public Health Scotland, 2023c). This pattern is also evident in Grampian in 2023, with 89% of teenage pregnancies in the least deprived areas ending in abortion, whereas only 42% ended in abortion in the most deprived areas.

To summarise, after a period of steady decline, the numbers and rate of teenage pregnancies in Grampian are increasing. This can be seen across all Local Authority areas although Aberdeen City accounts for the largest number and rate of pregnancies. Despite this, Moray has seen by far the greatest increase in rate over the last few years which requires ongoing monitoring and analyses.

Teenage Abortion (termination of pregnancy)

Epidemiological data on teenage abortion across Grampian were taken from TrakCare PMS, via Illuminate Tableau and covered the time period from Q1 of 2012 to Q1 of 2024. Teenage abortions are those that take place in women aged 15-19. As previously highlighted, this HCNA does not cover non-NHS data and therefore may miss abortions delivered under third sector or private organisations.

In 2023, the number of teenage abortions in Grampian was the highest it has been in the last ten years and the rate was the highest it's ever been during this timeframe, at 14.1 per 1000 in 2023 compared to 13.6 in 2012. Since 2021, the number of teenage abortions have increased by nearly 45%, with the rate rising from 9.7 to 14.1 per 1000 women aged 15-19. This is on a background of overall increased demand for abortion care. See Figure 9 for details.

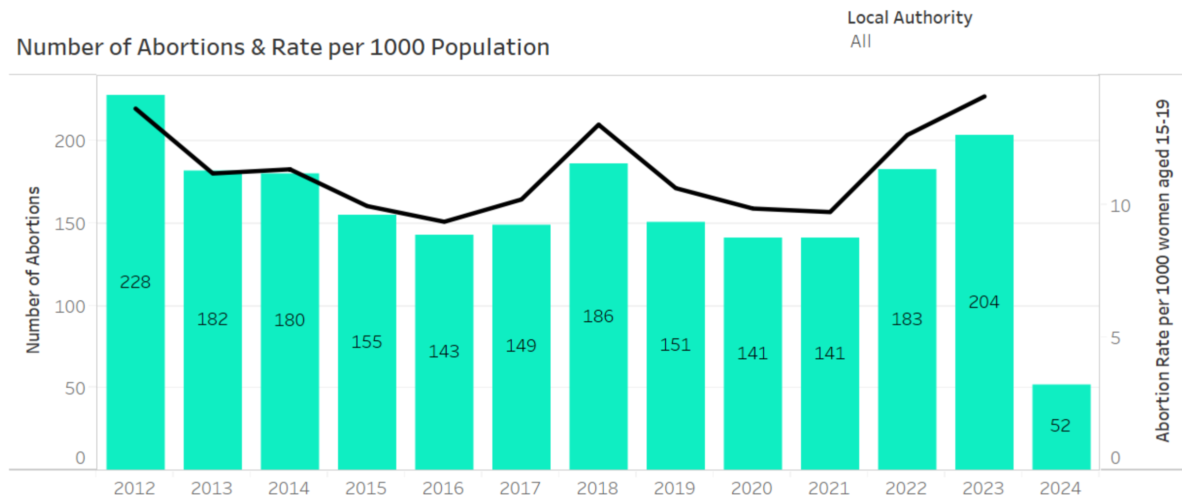

Figure 9: Total number and rate of annual teenage abortions in Grampian, Q1 2012-Q1 2024. Black line shows teenage abortion rate (abortion per 1000 women aged 15-19 years)

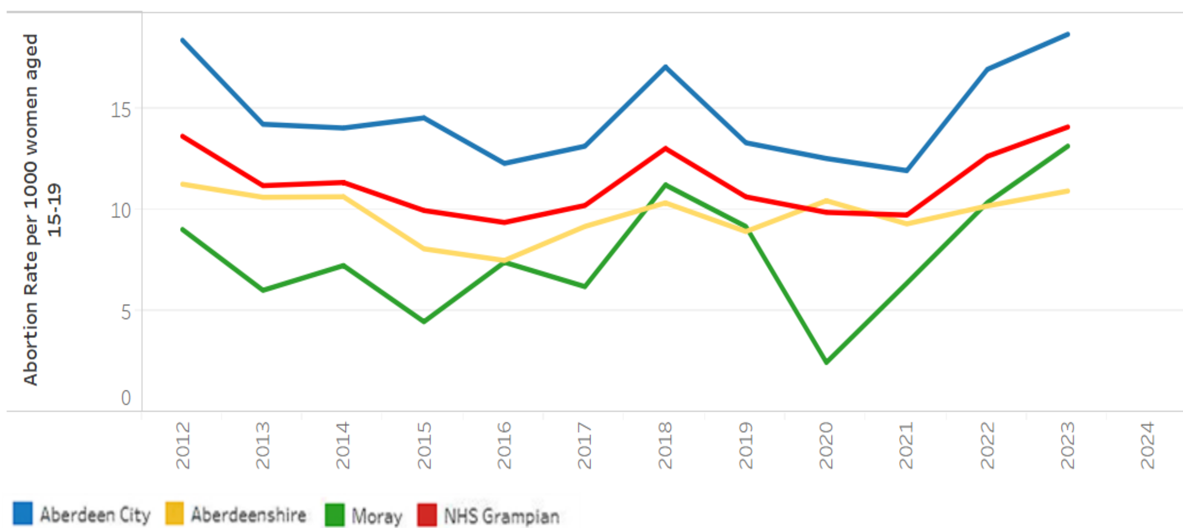

Figure 10: Teenage abortion rates by Local Authority area, 2012-2023.

As outlined in Figure 10, since 2021, all Local Authority areas in Grampian are showing an increasing trend in rates of teenage abortion. Aberdeen City has the highest overall rate (18.7) of teenage abortion in 2023, with an increase of around 50% since 2020, but Moray has seen an increase from a rate of 2.5 in 2020 to a rate of 13.1 in 2023, representing a 424% increase. The exceptionally low rate seen in Moray during 2020 is likely to have been influenced by the COVID-19 pandemic restrictions and changes in sexual behaviour and service provision during this time. Nonetheless, this doesn't account for the increasing rate since then, especially when we consider the relatively small population size of Moray compared to Aberdeenshire whose rate is only 10.9 in 2023 compared to 10.4 in 2020, displaying only a 4.8% increase. However, this increase may be explained by a low baseline rate and relatively small numbers of teenage abortions in Moray each year compared to

Aberdeen City and Aberdeenshire. Therefore, this may make it appear worse than it is, as overall Moray still only accounted for 16% of all teenage abortions in 2023.

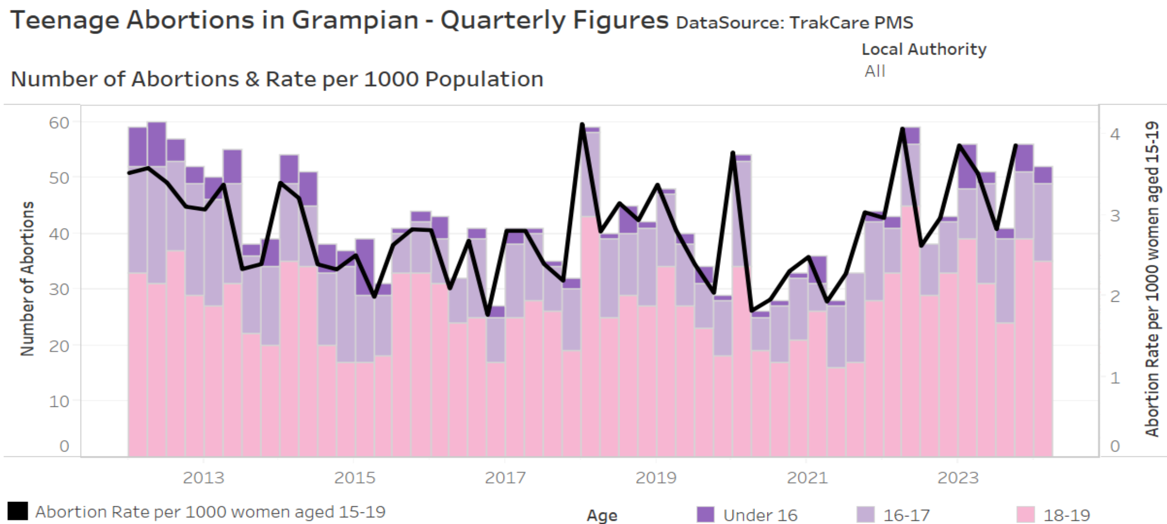

Figure 11: Total number and rate of teenage abortions per quarter in Grampian, Q1 2012- Q1 2024. Black line shows abortion rate per quarter (teenage abortion per 1000 women aged 15-19 years)

Figure 11 shows that most teenage abortion demand occurs in the age bracket of 18-19, followed by 16-17 and then under 16's. Although all age abortion is not examined in this document, it was previously analysed in the recent *Health Care Needs Assessment for Sexual Health Services for NHS Grampian* and also showed an increasing trend. The 20-24 age bracket has the highest number of abortions, totalling just under 30%. If you also add in the under 20 age bracket to the 20-24, it makes up 40% of all abortions in Grampian. As this HCNA is looking at young people aged 13-24, it's an important piece of information to note in terms of abortion support, resource allocation and service delivery. If we compare 2023 national statistics on abortion with Grampian, Scotland had a rate of 18.6 per 1000 women aged 16-19 years compared to 16.6 in Grampian. In the 20-24 year age bracket, Scotland's rate was 29.3 per 1000 women while Grampian was sitting below this at 28.1 (Public Health Scotland, 2024). Therefore, despite increasing rates, Grampian remains below the national average overall, however this isn't the case in the most deprived areas.

To conclude, teenage abortion rates and numbers in Grampian are demonstrating an increasing trend. Nearly half of all teenage abortions were accounted for in Aberdeen City but over the last few years Moray has seen a fast and significant increase, far greater than the other two Local Authority areas. The increase in abortion rates may coincide with the increase in pregnancy rates however the cause behind these warrants further investigation and monitoring. It may be due to changes in contraception availability or uptake, resulting in greater unintended pregnancies and therefore an increase in abortion. Other factors such as the increase in cost of living may have played a role.

Contraception Data

Contraception services are provided by NHS Grampian Sexual Health Service and as part of non-specialist sexual health services delivered by GP practices and pharmacies across Grampian. Prescription data for contraceptive methods were analysed and can be seen below. It should be noted that this data does not include contraception that is not prescribed (such as condoms) and also those that young people are able to purchase or obtain from non-NHS sources. It also doesn't include other methods that young people may be utilising such as hormone tracking apps.

NHS Grampian Sexual Health Service

Prescription data was analysed alongside NHS Grampian Sexual Health Service attendance data for both the under 18 year old age group and those aged 18-24 years old for 2023.

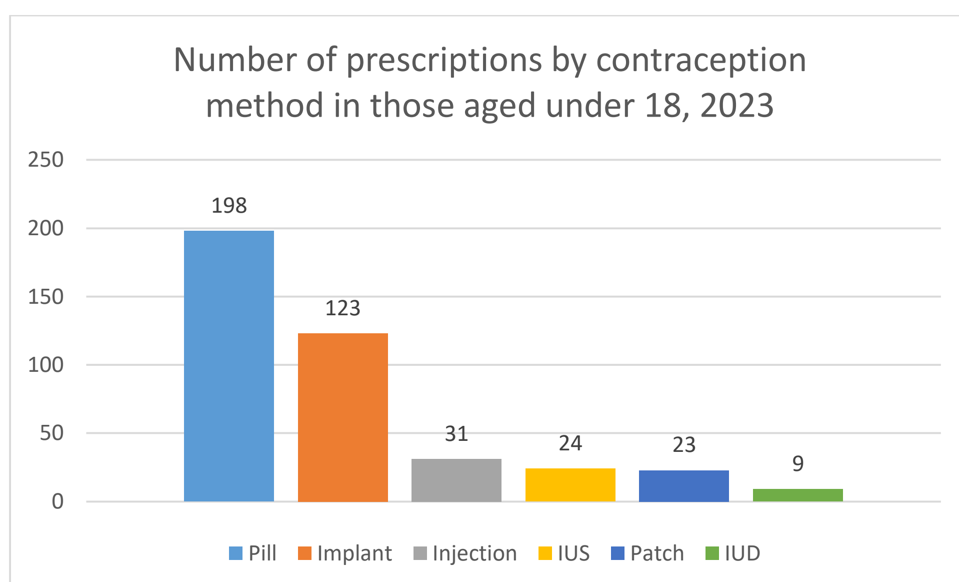

Figure 12: Number of prescriptions by contraception method in those aged under 18, 2023

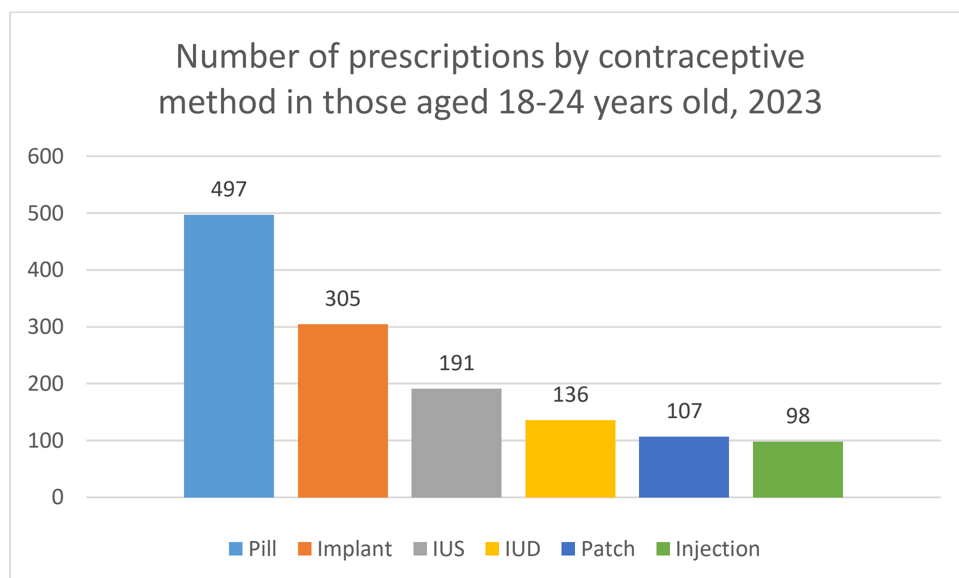

Figure 13: Number of prescriptions by contraceptive method in those aged 18-24 years old, 2023

In 2023, the contraceptive pill was the most popular form of contraception prescribed by NHS Grampian Sexual Health Service for both age groups, followed by the implant (see Figure 12 & 13). The pill accounted for 48% of prescribed contraception in under 18 year olds compared to only 37% for those aged 18-24. Although the implant was the second most common form of prescribed contraception for both age groups, it was less popular in the older age group at 23% compared to 30% in the younger age group. The next most common form of contraception for under 18 year olds was the injection (8%), followed by IUS (6%), patch (6%) and IUD (2%). Whereas in the 18-24 year old age group, IUS (14%) and IUD (10%) methods were the next most popular choice, with both the patch (8%) and the injection (7%) being the least popular.

Primary Care

The Pharmacy Information System (PIS) was used to extract contraception prescribing data across Grampian in those aged under 25 years old. This data includes GP practice and pharmacy prescribing (where POP and EHC are available). Therefore, it provides us with a more complete picture of contraception prescribing across Grampian. The charts below summarise data from 2019 Q1 to 2023 Q4 for all forms of prescribed contraception.

All Prescribed Contraceptive Methods

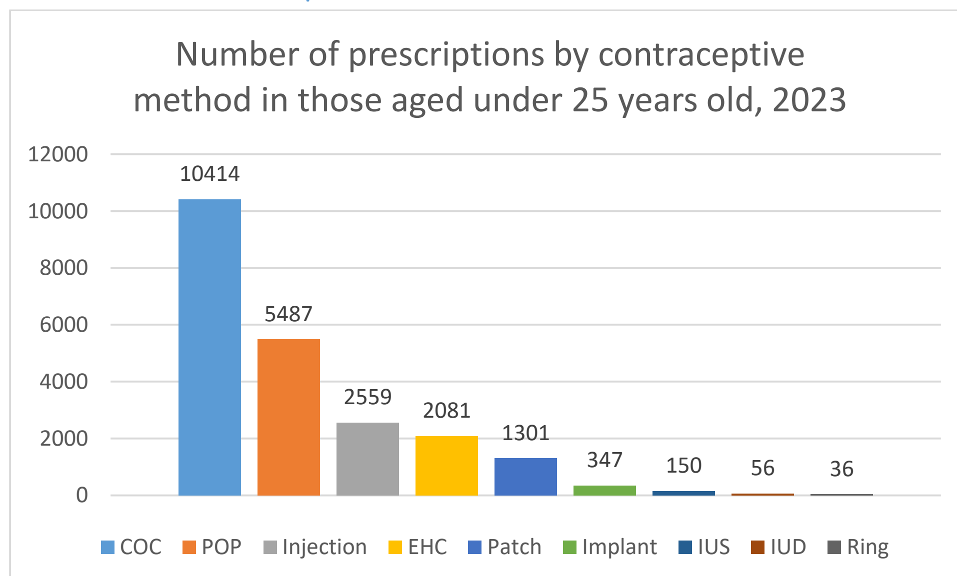

Figure 14: Number of prescriptions by contraceptive method in those aged under 25 year olds, 2023

When looking at all primary care prescription data, the contraceptive pill (COC & POP) has the highest number of prescriptions in those aged under 25 years old (46% & 24%), followed by the contraceptive injection (11%), emergency hormonal contraception (9%), the contraceptive patch (6%), implant (2%), IUS (1%), IUD (<1%) and finally vaginal ring (<1%) (Figure 14). This is different to the order and percentage that was seen in the NHS Grampian Sexual Health Service data. In primary care prescribing, the contraceptive pill accounts for 70% of all prescriptions. However, primary care do all repeat prescriptions for the contraceptive pill which will therefore contribute to the higher percentage. A further

difference is that the injection is the second most commonly prescribed contraceptive method in primary care, compared to the implant in the sexual health service. The contraceptive injection is given every 8-13 weeks compared to the implant, which is only required every 3 years, so this may account for the larger number of prescriptions for the injection. However, it would still appear that the implant was far less commonly prescribed in primary care in 2023, with the patch much more common than the implant. Also worth highlighting is the very small numbers of IUS & IUD being prescribed in primary care compared to the specialist sexual health service. However, NHS Grampian Sexual Health Service is a LARC training centre and therefore may focus more on LARC provision.

Contraceptive Pill

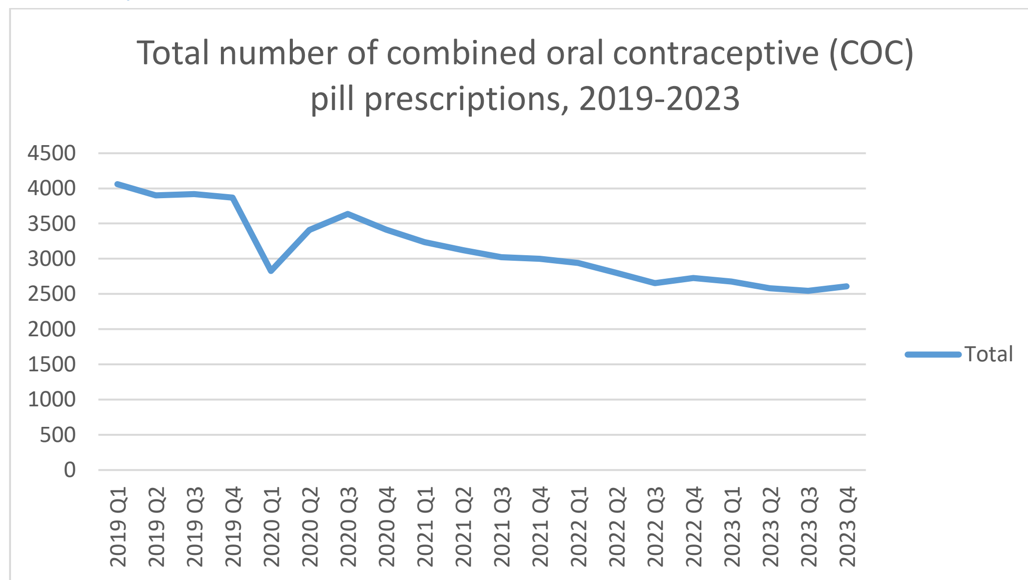

Figure 15: Number of prescriptions for combined oral contraceptive pill in under 25 year olds, 2023

As can be seen in Figure 15, the number of COC pill prescriptions reduced between 2019 Q4 and 2020 Q1, marking the start of the COVID-19 pandemic and the first lockdown. Although numbers increased in 2020 Q3, they have steadily declined since then and do not seem to have recovered to pre-pandemic prescribing levels. In fact, between 2019 Q1 and 2023 Q4, there has been a 35% decrease in the number of prescriptions for the COC pill in this age group.

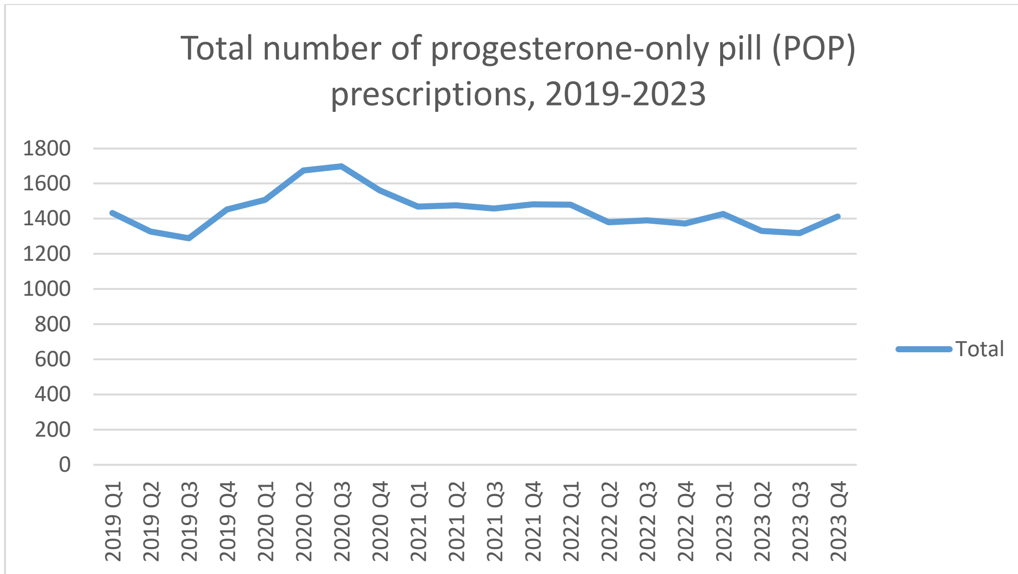

Figure 16: Number of prescriptions for progestogen-only pill in under 25 year olds, 2023

Unlike the COC pill, POP prescriptions do not appear to have been as affected by the impacts of the COVID-19 pandemic and in fact the number of prescriptions rose between 2019 Q3 and 2020 Q3, possibly because people were unable to access other forms of contraception such as LARC and/or attend for BP measurement (Figure 16). Between 2019 Q1 and 2023 Q4, the number of prescriptions for POP remained consistent. Of note, since November 2021, some pharmacies in Scotland have been able to provide POP as a form of bridging contraception. This may have also helped to improve access to POP in Grampian.

Contraceptive Injection

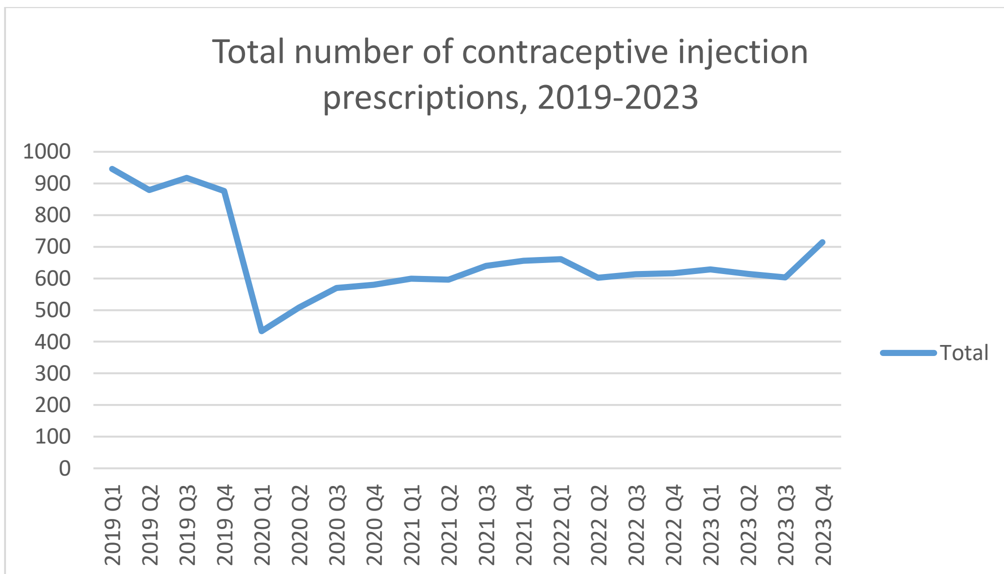

Figure 17: Number of prescriptions for contraceptive injection in under 25 year olds, 2023

Prescriptions for the contraceptive injection fell by over half between 2019 Q4 and 2020 Q1 (see Figure 17) but steadily increased during the COVID-19 pandemic and now appear to be on the rise. However, they remain 25% less than they were in 2019 Q1.

Contraceptive Patch

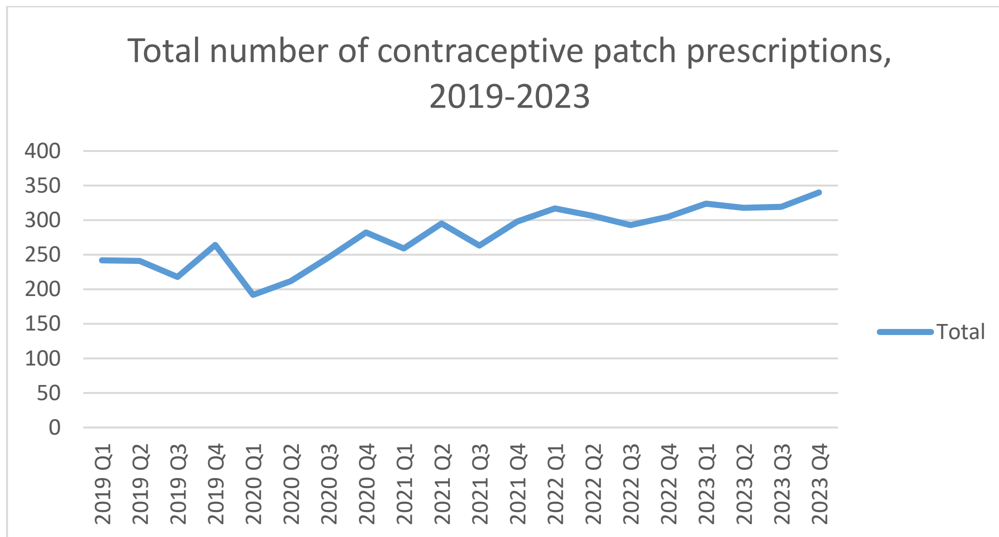

Figure 18: Number of prescriptions for contraceptive patch in under 25 year olds, 2023

Contraceptive patch prescriptions don't appear to have been as significantly affected by the COVID-19 pandemic than some other forms of contraception (Figure 18). Between 2020 Q1 and 2023 Q4, there has been a 40% increase in the number of prescriptions for the contraceptive patch and figures suggest they are continuing to rise.

Contraceptive Implant

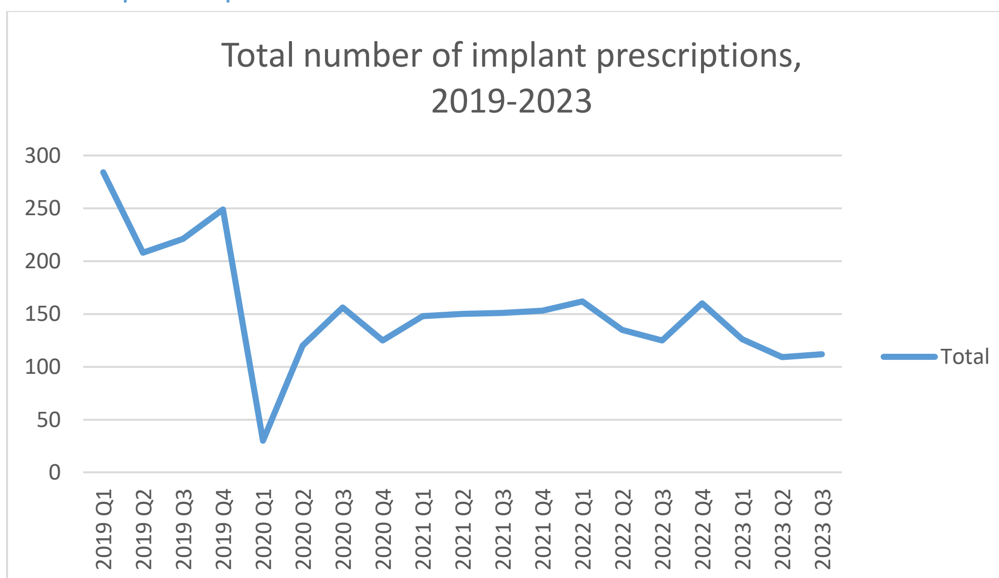

Figure 19: Number of prescriptions for contraceptive implant in under 25 year olds, 2023

Prescription numbers for the implant dropped drastically between 2019 Q4 and 2020 Q1, resulting in an 88% decrease (Figure 19). Although numbers had improved by 2020 Q3, they appear to have fallen again and in 2023 Q3 they are 60% lower than they were at their peak in 2019 Q1.

Intra-uterine System (IUS)

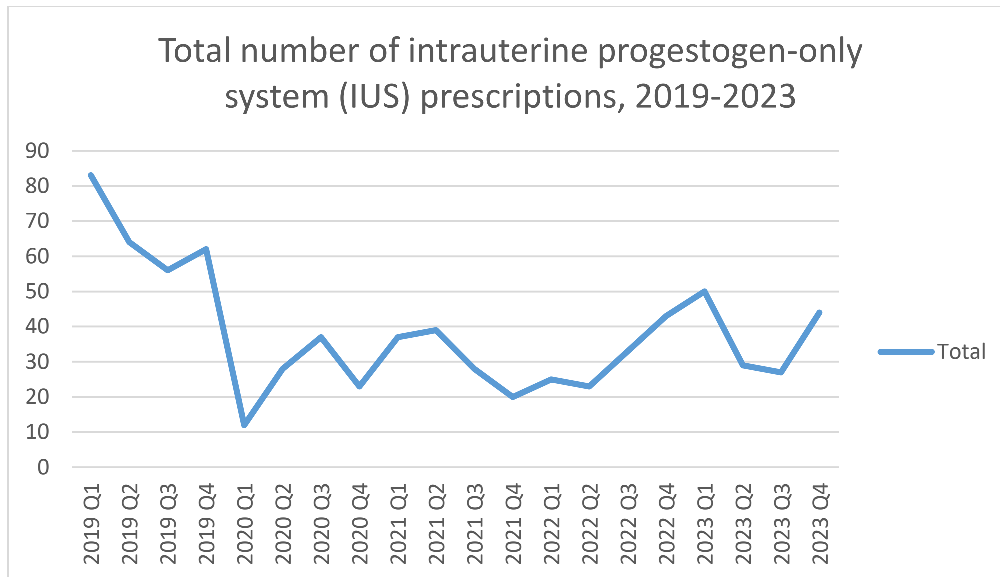

Figure 20: Number of prescriptions for intrauterine progestogen-only system in under 25 year olds, 2023

Prior to the COVID-19 pandemic, the number of IUS prescriptions seem to have been declining, with a further dramatic dip in 2020 Q1 with the onset of the pandemic (Figure 20). Since then, numbers have risen overall, with a peak in 2023 Q1 but remain just under half of what they were in 2019 Q1. Of note IUS can be used for non-contraceptive presentations.

Intra-uterine Device (IUD)

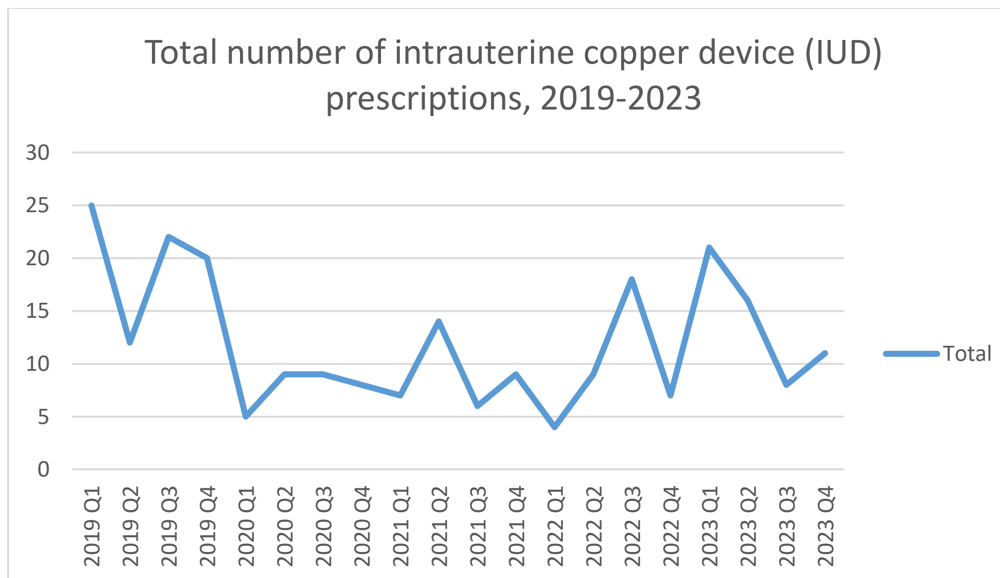

Figure 21: Number of prescriptions for intrauterine copper device under 25 year olds, 2023

Similarly to IUS, IUD prescriptions were decreasing prior to the pandemic and again saw a significant drop at the start of the pandemic. Numbers have fluctuated since and remain small in 2023 Q4 (Figure 21).

Emergency Hormonal Contraception

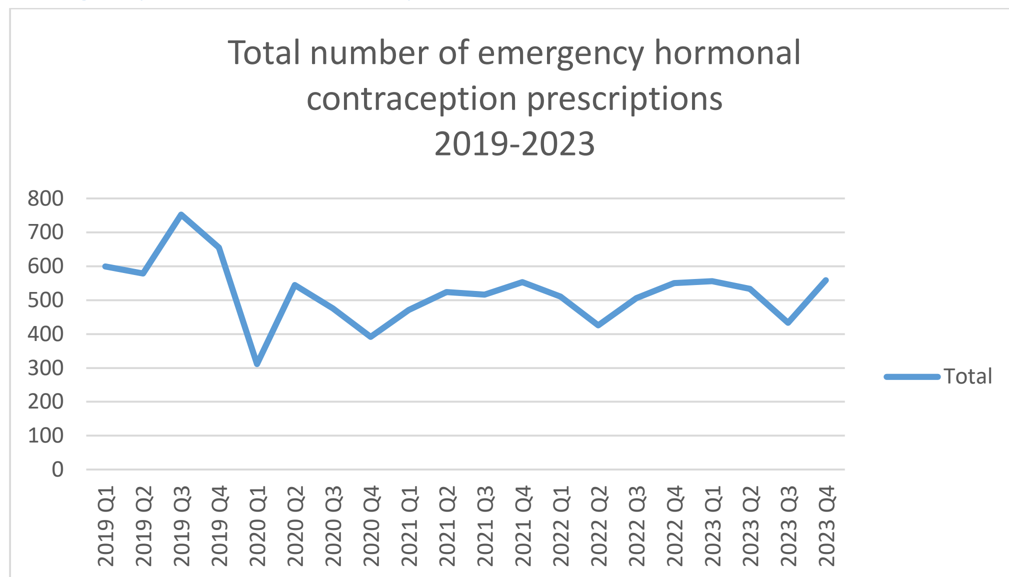

Figure 23: Number of prescriptions for emergency hormonal contraception in under 25 year olds, 2023

The last form of prescribed contraception analysed was for emergency hormonal contraception (EHC). Prior to the COVID-19 pandemic, prescriptions for EHC appeared to be increasing however they dropped by nearly 60% at the start of the pandemic and then rose again in 2020 Q2 (Figure 23). They have remained relatively stable since and have yet to reach the peak seen in 2019 Q3 but do appear to be on an increasing trajectory. Most EHC prescriptions are from community pharmacies which may mean that access to EHC was more consistent during the pandemic compared to some other forms of contraception.

To conclude, all forms of prescribed contraception in primary care saw a decline at the start of the COVID-19 pandemic, with some more significantly affected than others. Forms of contraception that didn't require a face-to-face appointment seem to have been less affected. This would account for the fact that services had to rely on virtual appointments until new ways of working were established.

The contraceptive pill remains by far the most common form of prescribed contraception both before and after the COVID-19 pandemic in the under 25 year old age group. Although COC pill continues to be the most common form of contraceptive pill prescribed, it has seen a significant decline in use between 2019 & 2023, meanwhile POP prescriptions have remained stable. This would suggest that young people in Grampian are moving away from the combined oral contraceptive pill rather than the contraceptive pill in general, as had been suggested in the literature review.

The contraceptive injection and contraceptive patch also remain relatively popular forms of prescribed contraception in this age group, with prescriptions for the contraceptive patch displaying an increasing trend. In fact, the contraceptive patch appears to be the only form of prescribed contraception that has surpassed pre-pandemic levels. It may be this signifies

young people's desire to use forms of contraception that they have greater autonomy over and with perceived shorter impacts on fertility after cessation, as highlighted in the literature review. This would be supported by the fact that prescriptions for the implant, IUS and IUD have declined since the pandemic in primary care and prescription numbers remain relatively small across all LA areas. The literature review also evidenced that there are misconceptions regarding LARC that need to be addressed, and the low prescription numbers could also support this. Finally, EHC prescriptions appear to be almost at that of pre-pandemic levels and may be continuing to rise. This may be in line with overall reduced contraception prescribing and is something that may wish to be monitored.

Finally, there are some clear differences between the specialist sexual health service prescribing data and the primary care data, with the contraceptive pill accounting for the majority of prescriptions in primary care. They are also far less likely to prescribe LARC compared to the specialist sexual health service. There are many factors which could be influencing this, some of which have already been discussed above. A further influence could be young people's preferences in terms of where they access contraception and changes in young people's views regarding contraception. Changes in availability of contraception in their local area could also be influencing this. For example, during the pandemic GP time was redirected, leaving limited time for contraception services. This may have led to a reduction in staff skills, particularly relating to LARC insertion and removal which could account for the reduction in prescribing. Additionally, the way GP's are paid to deliver LARC in primary care has not been increased for many years, possibly encouraging them to redirect patients to the specialist sexual health service. These could have reduced young people's access to LARC via their GP, resulting in a reduction in uptake. It would be beneficial to explore some of these potential explanations via engagement with both GP's and young people to ensure the correct conclusions are drawn prior to solutions being sought.

NHS Grampian Sexual Health Service Use

Under 18 Age Group

Young Persons Service

NHS Grampian Sexual Health Service runs a dedicated Young Persons Service for under 18 year olds which provides a drop-in clinic every Tuesday and Thursday between 3:30 and 5:30pm. As with other services, this had to stop due to the COVID-19 pandemic and there was a significant reduction in engagement. However, since 2020, attendance at the young person's clinic has steadily increased as can be seen below in Figure 24.

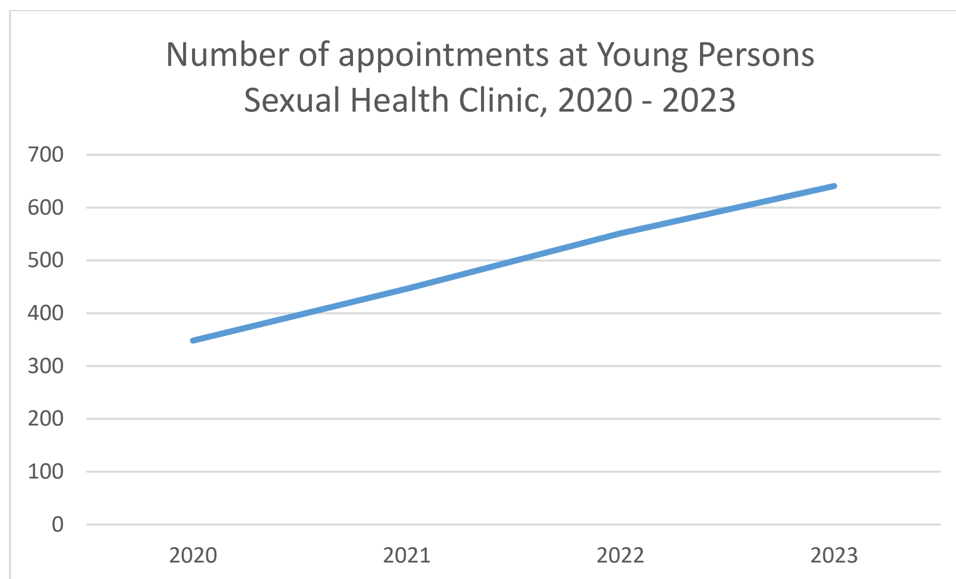

Figure 24: Number of appointments at Young Person Sexual Health Clinic, 2020 – 2023.

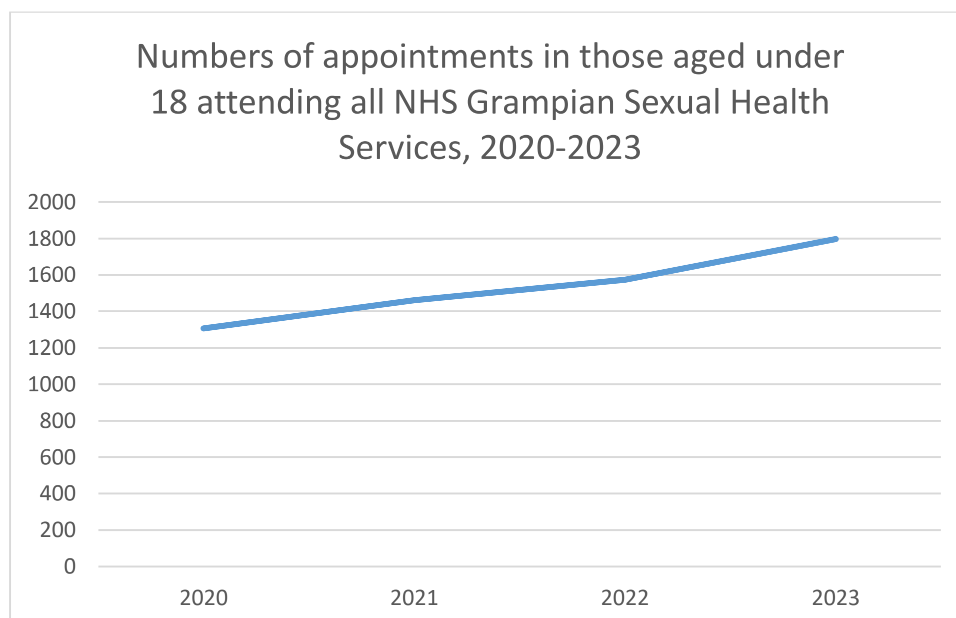

Figure 25: Number of appointments in under 18 year olds attending all NHS Grampian Sexual Health Services, 2020-2023

As well as the dedicated Young Person's Service, all age groups can access any of the wider services on offer via NHS Grampian's Sexual Health Service. Figure 25 shows attendance numbers in these wider services. As can be seen, the overall numbers attending these services are higher than those for the young person's clinic. They also show an increasing trend over the last few years which suggests the service is recovering post pandemic.

By examining attendance data by sex (self-identified at appointment), we can see that 89% of those aged under 18 attending services are female compared to only 10% of males. Given the population demographics, we would expect to see far more males engaging with the service and this is something that needs to be actively addressed. The greatest proportion of attendance takes place in 17 year olds and decreases as age lowers (Figure 27). Younger age groups are less likely to be engaging in sexual relationships and therefore may not feel they have a need for sexual health services (HBSC, 2024). However, it may also be that there are barriers such as stigma, fear and gender expectations which make it harder for younger people to engage with sexual health services.

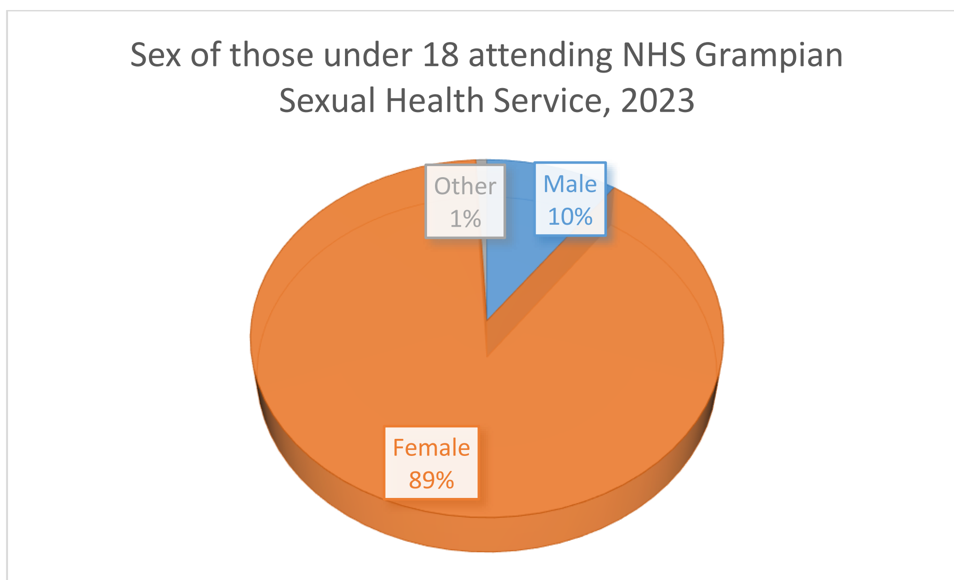

Figure 26: Sex of those under 18 years old attending NHS Grampian Sexual Health Service.

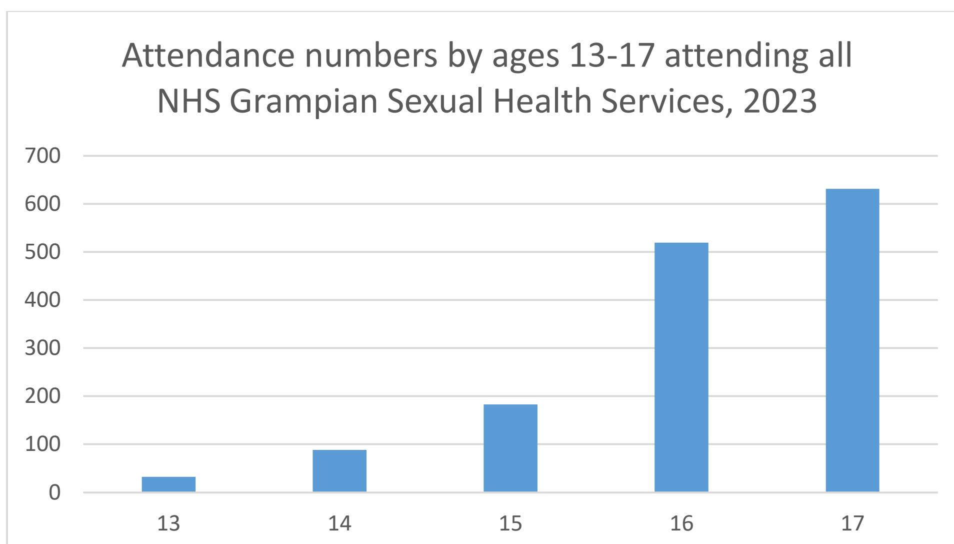

Figure 27: Attendance numbers across all NHS Grampian Sexual Health Services by ages 13-17 in 2023.

Figure 28 shows that 70% of all appointments at the Young Persons Service were in-person, with the remaining third over the telephone (Figure 28). This reflects the evidence from the literature which suggests young people have a preference for in-person services but also appreciate other options.

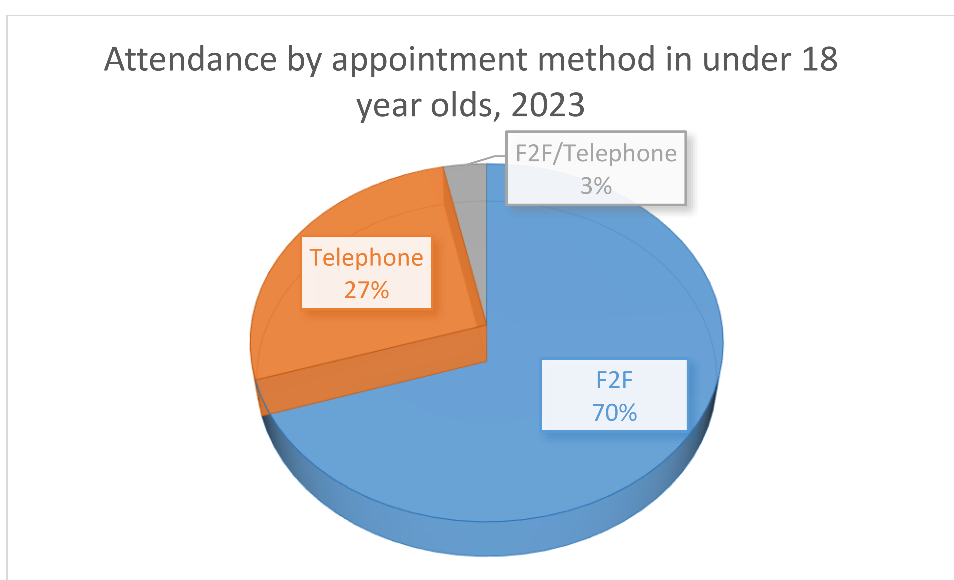

Figure 28: Attendance by appointment method in under 18 year olds, 2023

Figure 29 (below) shows that the majority (97%) of service use in 2023 took place at Aberdeen Health Village, with only 2% of service attendance at the satellite clinic in Elgin (Moray), 1% in Fraserburgh (Aberdeenshire) and less than 1% in Peterhead (Aberdeenshire). This may not be unexpected given the service is primarily based in Aberdeen but given the demographic distribution of the population in this age group (around 50% reside in Aberdeenshire, followed by 33% in Aberdeen City and 17% in Moray) these numbers seem disproportionately low and may suggest that service uptake in Aberdeenshire and Moray needs to be improved. Reasons for this could be service access given these clinics run far

less regularly than those at Aberdeen Health Village or the fact that not all services are available from satellite clinics. There could be other barriers such as clinic location, times or lack of advertisement. However, it is worth noting that young people drop-in clinics were ran in Peterhead and Fraserburgh from 2014 – 2018 but were stopped due to lack of attendance.

Additionally, as the data was not able to be analysed by patient postcode, it is possible that that young people from Aberdeenshire and Moray are choosing to travel to Aberdeen Health Village to access the service, possibly for confidentiality reasons or because they attend education or work in this area. Another explanation is that they are accessing sexual health services at their GP or local pharmacy. Therefore, it would be helpful to explore the factors above with young people to understand what is causing the low uptake in Aberdeenshire and Moray and what is needed to address this.

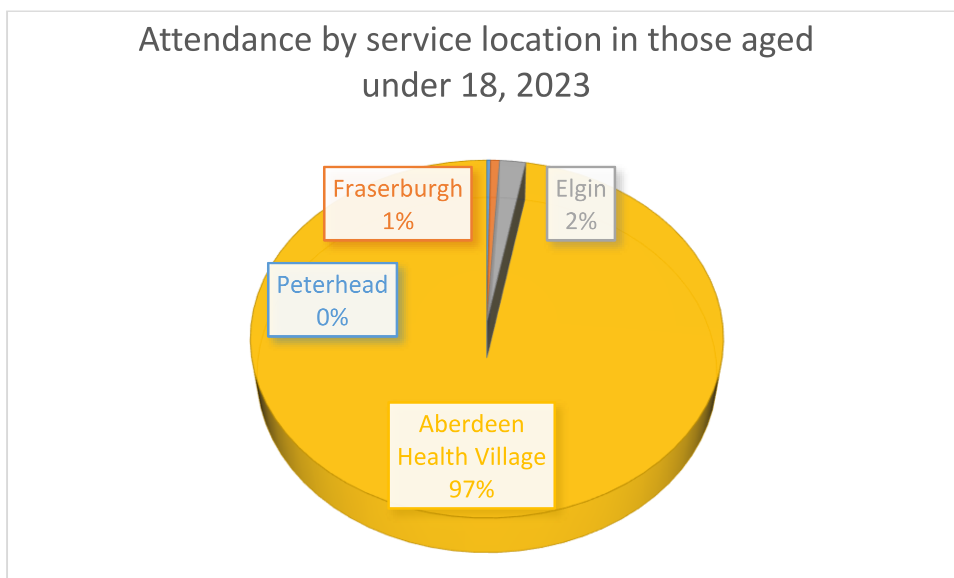

Figure 29: Attendance numbers by service location in under 18 year olds, 2023

Scottish Index of Multiple Deprivation (SIMD) is the Scottish Government's standard approach to identifying areas of multiple deprivation in Scotland. SIMD looks at the extent to which an area is deprived across seven domains: income, employment, education, health, access to services, crime and housing. SIMD 1 represents the 20% most deprived areas while SIMD 5 represents the 20% least deprived.

In 2023, there appears to be a deprivation gradient to the attendance data, with 28% of those attending NHS Grampian Sexual Health Service from the least deprived areas compared to 15% attending from the most deprived areas (Figure 30). However, when reviewing Grampian's population distribution by SIMD for the 13-17 year old age group, only 5% of all 13-17 year olds are from the 20% most deprived areas, while 32% are from the 20% least deprived areas (National Records of Scotland, 2022). This means that the attendance data is in keeping with percentages for population distribution by SIMD in this

age group and attendance at the service is higher in the most deprived than the population distribution. Research shows that those in the most deprived areas are more likely to experience poor sexual health including increased rates of STI's, teenage pregnancy and abortion, therefore it is important that the service continues to focus on uptake in these areas.

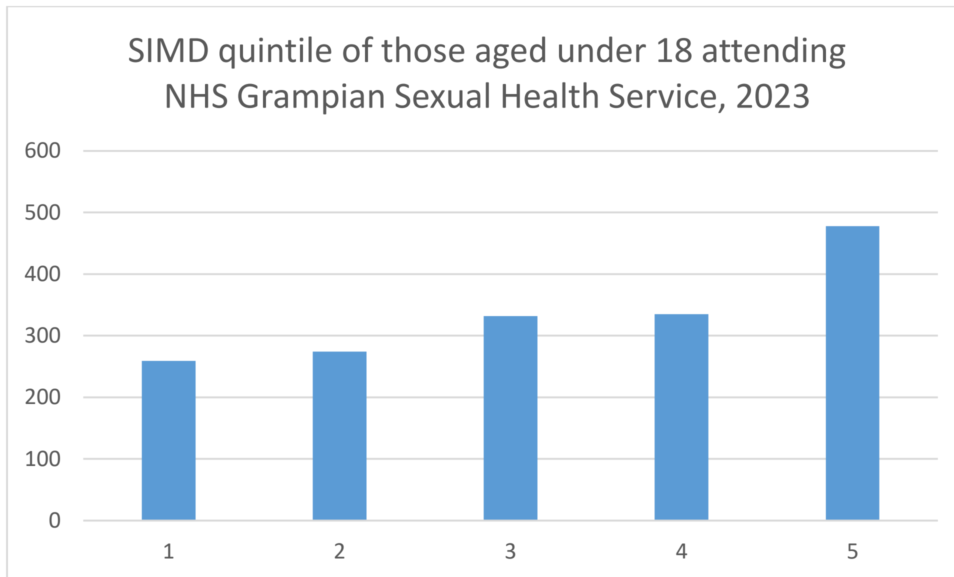

Figure 30: Attendance figures in those under 18 years old by SIMD quintile, 2023.

18-24 Age Group

Grampian Sexual Health Service does not have a dedicated service to those aged 18-24 years old, instead they are able to access all services provided by NHS Grampian Sexual Health Service. As with the under 18 data, service uptake in those aged 18-24 years old dropped during the COVID-19 pandemic but saw a significant recovery between 2020 and 2022 as the service adapted to new ways of working. Service use has continued to increase between 2022 and 2023 but at a much smaller rate than in previous years (Figure 31).

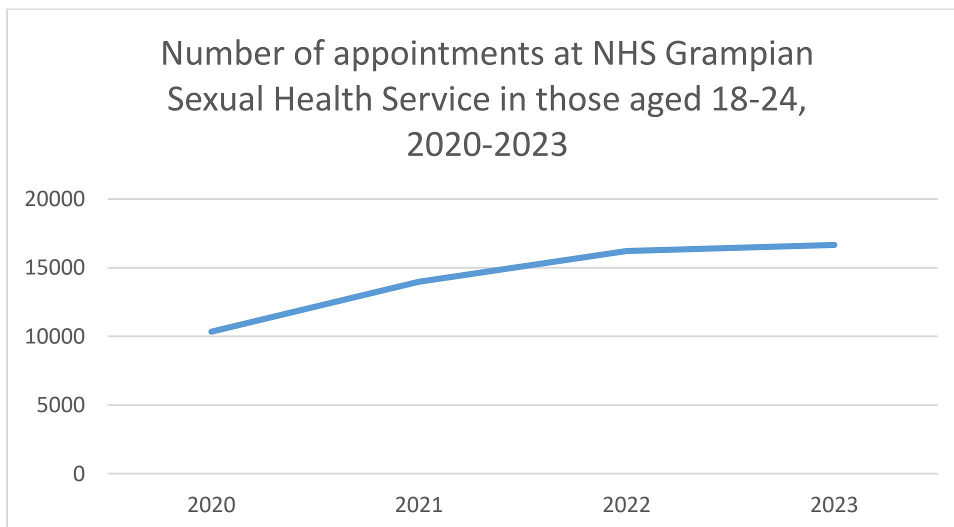

Figure 31: Number of appointments at NHS Grampian Sexual Health Service in those aged 18-24, 2020-2023

Figure 32 demonstrates that females represent most service users (67%) in those aged 18-24 compared to 32% of males. However, males do make up a larger proportion compared to the under 18 data. Despite this, these figures show a poorer uptake in service use by males which isn't representative of the demographic split of the population by sex. It would be helpful to explore with young men the reasons why they are less likely to attend the service and how to improve this.

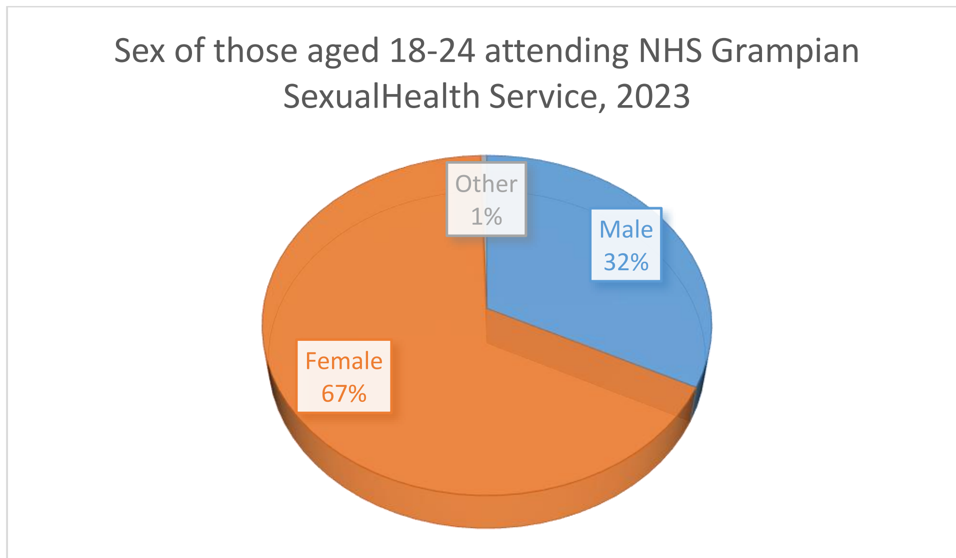

Figure 32: Sex of those aged 18-24 attending NHS Grampian Sexual Health Service, 2023

From analysing attendance data by age for those between 18-24 years old (Figure 33), we can see that those aged 21 years old have the highest attendance at NHS Grampian Sexual Health Service. This may be due to need or the fact that the majority of people in this age group reside in Aberdeen City, where the service is located. Nonetheless, attendance is relatively well split across the age groups compared to the under 18 data.

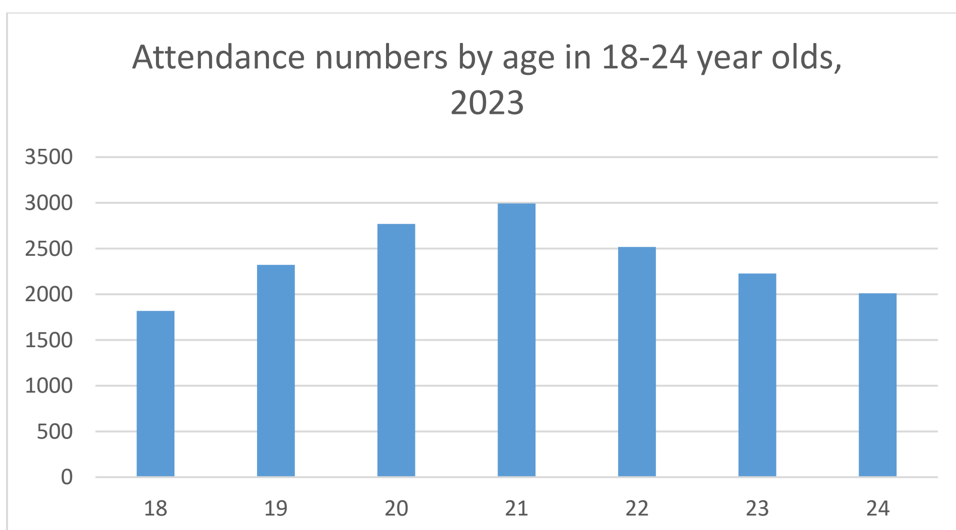

Figure 33: Attendance numbers by age in 18-24 year olds, 2023

Unlike the under 18 year old age group, 18-24 year olds do not show a preference for in-person appointments and instead telephone appointments were marginally more popular than face-to-face appointments in 2023 (Figure 34).

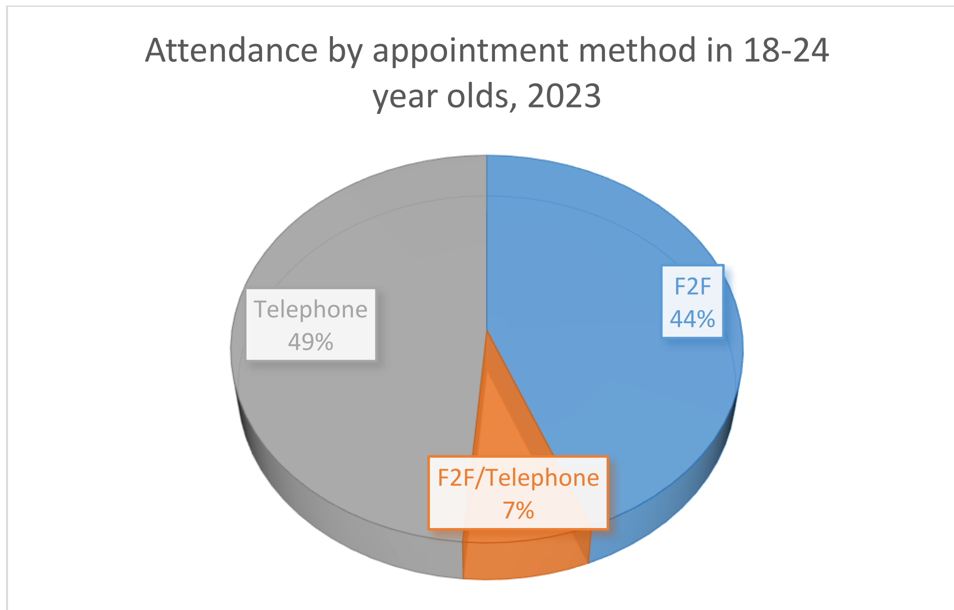

Figure 34: Attendance by appointment method in 18-24 year olds, 2023

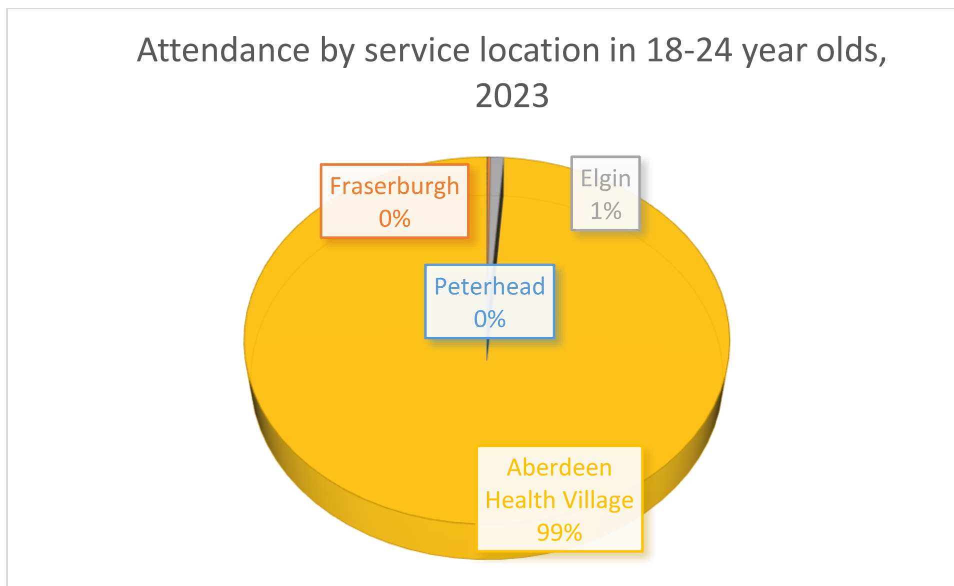

Figure 35: Attendance numbers by service location in 18-24 year olds, 2023

Once again, most of the service use took place at Aberdeen Health Village, in this case 99% of all attendance (see Figure 35 above). The satellite clinic in Elgin (Moray) accounts for 1% of service attendance and less than 1% takes place in Peterhead and Fraserburgh (Aberdeenshire). As before, given the population demographics by area of this age group (56% residing in Aberdeen City, 32% in Aberdeenshire and 12% in Moray), we would expect to see higher uptake in Aberdeenshire and Moray services. All the points previously discussed in the under 18 data relating to service location would also be relevant for this

age group, therefore further work is needed to understand what is causing this low uptake and how to address it.

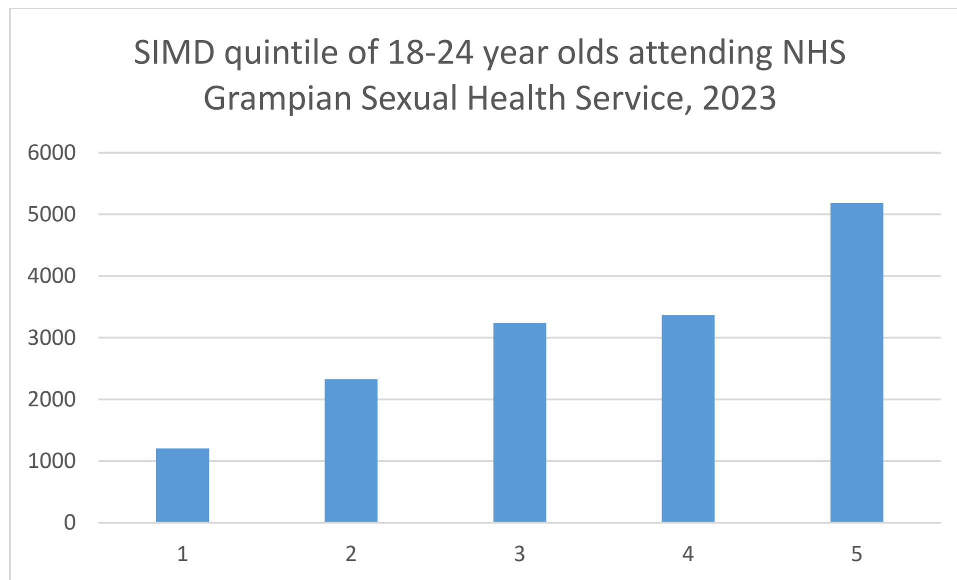

Figure 36: SIMD quintile of 18-24 year olds attending NHS Grampian Sexual Health Service, 2023

Finally, analysis of the 18-24 year old data by SIMD (Figure 36) shows a similar trend to that displayed in the under 18 service data, with those from the least deprived areas (SIMD 5) accessing NHS Grampian Sexual Health Service more than those from the most deprived areas (SIMD 1). The gradient appears to be more marked than in the under 18 year olds data, with 33% of those attending the service from the least deprived areas compared to just under 8% attending from the most deprived areas. However, data showing Grampian's population distribution by SIMD shows that only 5% of all 18-24 year olds are from the 20% most deprived areas and 27% are from the 20% least deprived areas (National Records of Scotland, 2022). Therefore, the attendance data isn't far from the population distribution by SIMD in this age group. Nonetheless, given the much higher risks of STI's, teenage pregnancy and abortion in deprived areas, it is important that there remains a focus on young people from the most deprived areas. The satellite clinics provided by NHS Grampian Sexual Health Service in Elgin, Peterhead and Fraserburgh are already mapped to areas of high deprivation but service uptake appears to be very low. Therefore, one way the service could increase reach of those in the most deprived areas is by focussing on improving uptake and service availability in these clinics.

To conclude, attendance at NHS Grampian's Sexual Health Service appears to have increased over the last few years, suggesting the service is recovering post pandemic. Despite increasing attendance, the data would suggest there are several disparities that warrant further investigation and improvement such as the difference in attendance by sex, geographical location and deprivation. These areas directly feed into the HIS standards for Sexual Health Services and without addressing them we are unlikely to achieve a more equitable service and improve sexual health outcomes.

Areas for Improvement & Recommendations

Engagement and Collaboration with Young People

There is a need to engage and collaborate with local young people across Grampian to ensure we are meeting their needs and build relationships between them and sexual health services. There are a number of areas identified in this report that require engagement to ensure we interpret the data correctly. Previous engagement work has provided valuable insights but ideally engagement needs to be carried out on a larger scale and involve those not currently attending sexual health services. It would also be beneficial to have young people involved in service evaluation and design on an ongoing basis. As the literature evidenced, we need to understand the specific needs of our local population and how we can support them to make positive sexual health and relationship choices.

Recommendations:

- Conduct an online open access survey seeking young people's views regarding current and future sexual health service delivery. This work is already planned as part of this HCNA process.
- Work with local community groups and young people to support the planning and delivery of sexual health services on an ongoing basis to ensure they are meeting the needs of the local population. The literature review suggested young people want more positive and holistic sexual health and wellbeing services, with less of a focus on ill health and disease.

Sexual Health Service Provision & Uptake

There appears to be disparities in terms of provision of specialist sexual health services available to young people in Grampian. Between 97-99% of all appointments for NHS Grampian Sexual Health Service in young people take place at the Aberdeen Health Village in Aberdeen City. STI data also shows that the majority of Chlamydia and Gonorrhoea tests are in young people residing in Aberdeen City. This does not reflect the population split of young people across the three LA areas in Grampian and may suggest under provision in Aberdeenshire and Moray. Although the service runs a few satellite clinics in these areas, they appear to be poorly used. There are many reasons this could be but engagement with young people is required to understand this issue further, so that these disparities can be addressed and we can ensure we are providing an equitable service across Grampian. It may be that the specialist sexual health service needs to increase service provision within these areas or we may need to work with GP's, pharmacies, school nurses, health improvement teams, educational establishments and local community groups to find other ways to cover gaps that are identified. This may involve outreach work or piloting novel ways of providing sexual health services.

As well as service provision, there are improvements that need to be made in terms of service uptake. Although not specific to Grampian, young men are not engaging with the service as well as young women. At present, women appear to be disproportionately affected by chlamydia and gonorrhoea in the under 25 year old age group but this may be partially due to their greater attendance and increased STI testing. With rising rates in both chlamydia and gonorrhoea, we need to ensure that young men are also seeking sexual health advice and testing to reduce transmission and burden of disease in this population. As well as this, STI testing in the under 20 year old age group is yet to reach pre-pandemic levels, therefore this is another key group that should be targeted. Online postal testing kits for STI's have been found to be acceptable in this population and could be one option for increasing testing uptake, as well as minimising barriers such as stigma, embarrassment or geographical issues.

Service data wasn't available on ethnicity, disability, sexual orientation or other factors which may influence young people's sexual health needs. However, from the literature review and demographic data for Grampian, it is likely that this would be an area that would benefit future analysis given the impact it can have on sexual health outcomes.

Recommendations:

- Engage with young people regarding sexual health service provision within Aberdeenshire and Moray and explore reasons behind low uptake of satellite clinics in these areas. Depending on the outcome of this, and if required, review options to adapt or increase specialist in-person sexual health service provision and uptake within Aberdeenshire and Moray.
- As well as specialist services, ensure sexual health is delivered as part of other services and staff feel confident and knowledgeable to provide support in a non-judgemental, culturally sensitive way through appropriate training. Maximise on collaboration between specialist and non-specialist services, especially if there are gaps in service provision within specific locations. Explore the potential for collaboration with school nurses, particularly focusing on prevention and contraception.
- Engage with young men to explore the reasons behind low attendance at NHS Grampian Sexual Health Service and how this can be overcome.
- Explore options for increasing STI testing, particularly in the under 20 year old age group. Increased use of online postal self-testing kits could support this or novel methods could be piloted such as STI testing vending machines. A risk assessment approach may wish to be used as described in the literature where those at higher risk are directed to in-person services.
- Consider embracing digital technology service options alongside in-person services.
- Routinely collect and monitor equality data so that areas for ongoing service improvement can be identified and made. Ensure data is collected in a way that is easily extractable unlike current text formats.

Contraception

Overall, primary care contraception prescribing has not recovered to pre-pandemic levels, which is concerning. It may be helpful to analyse prescribing data from NHS Grampian Sexual Health Service for the same timeframe to see if they have experienced the same trends. There is a clear reduction in the use of the combined oral contraceptive pill, possibly influenced by social media. However, POP prescription numbers have remained stable, suggesting young people in Grampian are not moving away from the contraceptive pill entirely. In particular, prescribing numbers for LARC methods appear to be low, especially in primary care and in the under 18 year old age group.

LARC prescribing numbers in primary care have not recovered to post-pandemic levels, and this can be seen across all LA areas. This is worth highlighting given the current background of increasing teenage pregnancies, abortions and repeat abortions in Grampian. The literature review highlighted that young women desire greater control and continue to have misconceptions regarding LARC, such as the impact on fertility after cessation. These need to be addressed so that young women can make informed choices about which contraceptive method they use. The reasons behind the reduction in LARC prescribing also need to be explored from both a stakeholder and young person's perspective to help identify ways to improve this.

Recommendations:

- Engage with young people regarding their views on contraception use and barriers to accessing contraception locally. Explore ways to improve contraception uptake in this population.
- In particular, review if current LARC pathways and services are meeting the needs of young people through engagement with this population. Also engage with prescribers in primary care to understand the barriers to prescribing LARC and why this has reduced since the pandemic. Explore how this can be resolved or if the low uptake is being driven by young people's preferences.
- Ensure young people have access to information on LARC and other forms of contraception which addresses ongoing misconceptions and is in a format which is accessible to them. Any new resources should be designed in collaboration with young people.

Deprivation

In both the under 18 year old and 18-24 year old data for NHS Grampian Sexual Health Service, there was a clear deprivation gradient to service attendance, with young people living in the least deprived areas far more likely to attend than those living in the most deprives areas. However, having looked at this alongside Grampian's population distribution estimates by SIMD, service attendance appears to be in keeping with the percentage of

young people from the most and least deprived areas in Grampian. Despite this, we know that young people from more deprived areas have much poorer sexual health outcomes and are more likely to experience teenage pregnancy, abortion and repeat abortions. Given Grampian is already seeing an increase in all of these, it is vital that we sustain and try to improve service provision and uptake within our most deprived areas. Satellite clinics are already mapped to some of these areas but as previously stated, their use appears to be very low. This may need to be addressed if we wish to improve the sexual health outcomes of our young people who are most at risk.

Recommendations:

- Target vulnerable groups requiring additional support such as those in deprived areas and those from ethnic minorities. As well as existing services, consider outreach services, working with local young people and community groups.
- Continue to monitor the rising rates of STI's, teenage pregnancy, abortions and repeat abortions in young people in Grampian and if required, develop an action plan to address these. Of note is the sharp uptake in teenage pregnancy and abortions in Moray.

Service Promotion

Previous work carried out with young people in Grampian has suggested that many are not aware of the sexual health services available to them. This may be another key factor in improving access and uptake within this age group. When speaking to some stakeholders as part of the scoping for this HCNA, there also appeared to be a lack of awareness of some services. This needs to be improved both in terms of service advertisement directed at young people but also within those supporting young people in their local communities.

Recommendations:

- Review attendance and membership of the Sexual Health and BBV MCN to ensure that all key stakeholders are engaged and aware of sexual health services within Grampian.
- Consider working with colleagues in Communications to develop a strategy to promote NHS Grampian Sexual Health Service and other sexual health services available to young people in Grampian, ensuring that young people themselves are involved in the design, promotion and implementation. The literature review suggested that blended formats may be most effective.

Sexual Health Information for Young People

Finally, it is clear from the literature that young people require further education and support on sexual health. With an increasing reliance on social media and the internet for sexual health and contraception advice, there is a desperate need to provide young people with factual, balanced and accessible information on sexual health, relationships and contraception. This needs to be delivered in formats that young people want to engage with, focus on prevention, and go beyond ill health.

Recommendations:

- In collaboration with young people, review the Grampian Sexual Health website to see where improvements could be made, ensuring information promotes sexual wellbeing rather than simply focussing on ill health.
- Working with young people and colleagues in Communications, consider using social media to convey sexual health information to young people.

Appendices

Appendix 1

Literature review methodology

Review Question

Population Intervention Comparator Outcomes (PICO) framework was used to formulate search questions and inform the search terms used in the review.

For example:

Population	Young People, Adolescents, Teenagers
Intervention	Sexual Health Service, STI Test
Comparison	Not Applicable
Outcome	Improved sexual health outcomes, Reduction in STI's, Increased Sexual Health Service uptake

Review Question:

How can we increase sexual health service uptake in young people to improve sexual health outcomes?

This review question was broken down further to generate key search topics that related to improving sexual health service uptake. These were:

- Models of Sexual Health Services for young people
- Barriers to young people accessing Sexual Health Services
- Advertising Sexual Health Services for young people

Therefore, the key search terms generated were "models", "barriers" and "advertising".

Search Strategy

The literature search was conducted by Lyn Mair, Clinical Liaison Librarian for NHS Grampian.

A systematic search was conducted on six electronic databases (Proquest Public Health database, Sociology Collection, Medline, CINAHL, EMBASE, AMED, Health Business Elite) during March 2024. A manual search of online databases and other sources was completed and included Tipdatabase.com, GoogleScholar, Google Advanced search and selected websites. Between the concepts, similar keywords and vocabulary were joined using the Boolean terminology OR and AND. Keywords included "young OR youth OR teen" AND "sexual health service OR clinic" AND "model OR models" OR "barrier", "access" OR "advert".

A sample search can be found below:

Sample search (Medline):

1. (young or youth or adolescen* or teen* or child or children).mp.
2. student*.mp.
3. 1 or 2
4. ("sexual health" adj4 (service* or clinic*)).mp.
5. ("sexual health" adj4 program*).mp.
6. ("sexual health" adj4 screen*).mp.
7. ("sexual health" adj4 test*).mp.
8. ("sexually transmitted" adj4 (service* or clinic*)).mp.
9. ("sexually transmitted" adj4 program*).mp.
10. ("sexually transmitted" adj4 test*).mp.
11. ((STI or STIs) adj6 (service* or clinic*)).mp.
12. ((STI or STIs) adj6 program*).mp.
13. ((STI or STIs) adj6 test*).mp.
14. or/4-13
15. 3 and 14
16. limit 15 to (english language and yr="2019 -Current")
17. (model or models or framework* or strateg* or plan*).mp.
18. barrier*.mp.
19. access*.mp.
20. (advert* or promot* or market*).mp. [mp=ab, hw, ti, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, an, ui, sy, ux, mx, tc, id, tm]
21. 17 or 18 or 19 or 20
22. 16 and 21
23. remove duplicates from 22

(* finds every word beginning with the letters before it – so advert* finds adverts, advertisement, advertisements, advertised etc.)

(adj= adjacent, adj4, for example, finds both phrases or words within 4 words of each other – so they are likely to be used in the same context)

Eligibility Criteria

To be included in the report, studies had to be:

1. Published in English
2. In full text format only
3. Published between January 2019 – March 2024
4. Studies on sexual health service models and young people
5. Studies on barriers to accessing sexual health services and young people
6. Studies on advertising of sexual health services and young people
7. Involving high income countries
8. Of any study design

The following criteria were used to remove studies from the review:

1. Studies that did not involve the key search areas
2. Duplicated publications

Data analysis and synthesis

Over 2000 titles and abstracts were scanned before putting the most relevant into RefWorks. Duplicates were removed in RefWorks and then reviewed again, irrelevant results removed again, and a final removing of duplicates made. Following this analysis and synthesis process, a total of 63 studies were identified matching the search criteria. Full text articles were then analysed by Jenni Strachan to confirm they met the eligibility criteria and were relevant to the review question and Scottish context.

Appendix 2

Grey literature Results

Scotland

Highland Sexual Health (2024) Teen Clinic website.

NHSGGC (2024) Sandyford for Young People website.

- Sandyford For Young People Campaign September 2023
- Awkward Moments Campaign (2022)

NHSGGC (2023) Sexual Health - Young People | Right Decisions (scot.nhs.uk)

Scottish Government (2023) Young people - Sexual health and blood borne virus action plan: 2023 to 2026

University of Glasgow MRC/CSO Social and Public Health Sciences Unit :

- CONUNDRUM (CONdom & CONtraception UNDerstandings: Researching Uptake & Motivations)
- CONUNDRUM Action
- Understanding Young People's Sexual Wellbeing

England & Wales

All East Sexual Health Shine (Newham, London)

Getting It On (2024) Sexual health, drugs & alcohol services for teenagers in South West London: Getting It On :: GIO includes Advice on Visiting a Clinic in Croydon, Kingston, Merton, Richmond, Sutton, Wandsworth (includes virtual tour of the clinic)

#getchecked - Hitch Marketing campaign for Hertfordshire Council aimed at men aged 18 and above.

GOV.UK (2023) 'You're Welcome': establishing youth-friendly health and care services

Healthwatch Lancashire (2024) What do young people know about sexual health?

Local Government Association (2023) Sexual health: How councils are driving innovation through partnership working Multiple case studies on sexual health – including Southend: Helping to reduce teenage conception rates.

London Borough of Hounslow (2023) Young People's Sexual Health Services in Hounslow Healthwatch Hounslow Report March 2023 (see also **Young Hounslow Sexual Health** https://www.turning-point.co.uk/services/young-hounslow-sexual-health#about)

Appendix 3

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