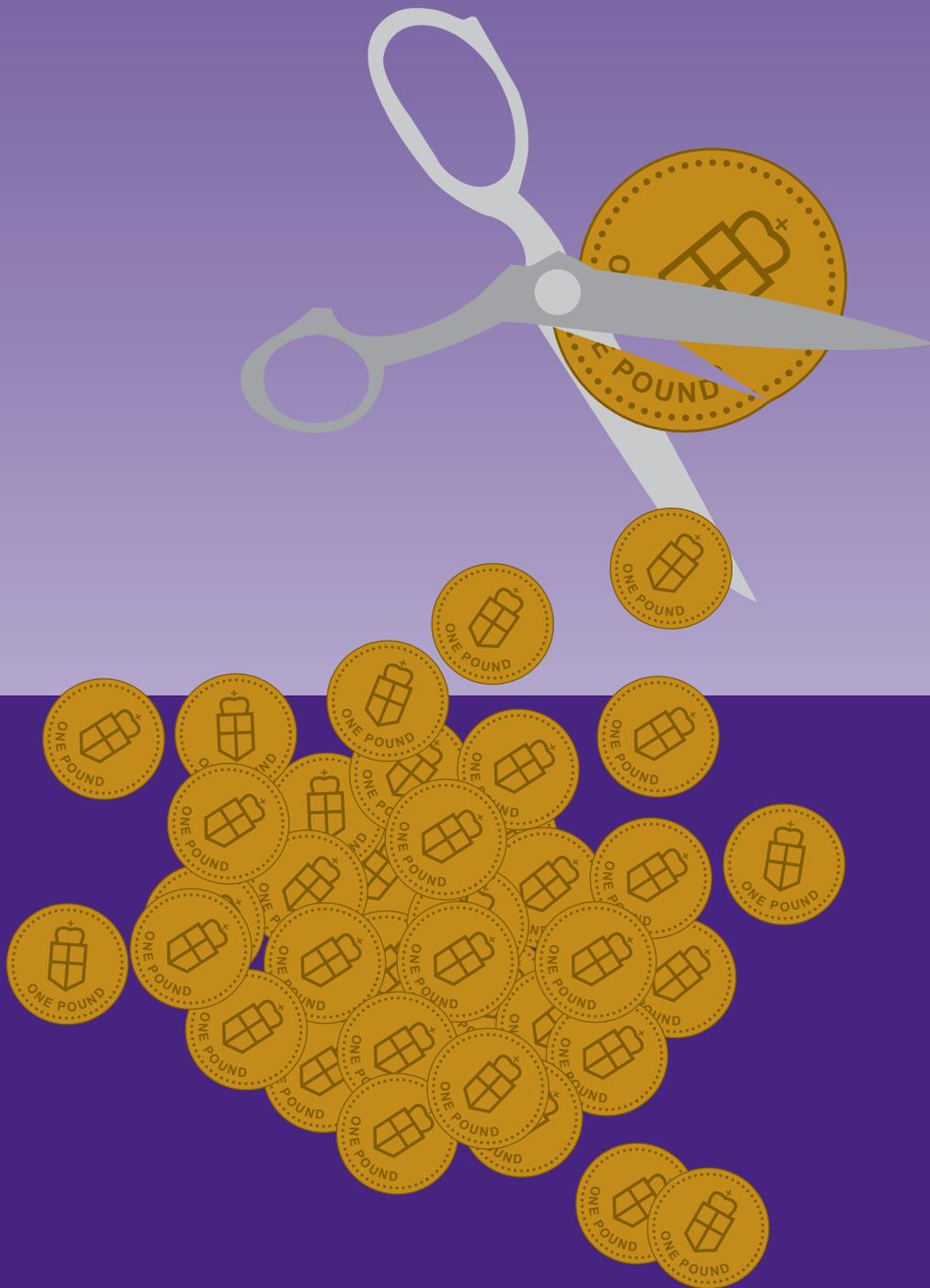


Unprotected Nation 2015

An Update on the Financial and Economic Impacts of Restricted Contraceptive and Sexual Health Services



talking sense about sex

About the author

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Foreword

In 2013, the first *Unprotected Nation* report warned that austerity measures which directly impact on sexual health and contraceptive services are a false economy. What is considered to be 'saving' millions now can actually result in having to spend billions further down the line on outcomes including increased unintended pregnancies and sexually transmitted infections (STIs).

Two years on and our fears are being realised. Since the Advisory Group on Contraception (AGC) reported in 2012 that there were already widespread restrictions in place, we have continued to hear about difficulties accessing services.

The All-Party Parliamentary Group on Sexual and Reproductive Health's inquiry into accountability within service commissioning, published earlier this year, heard evidence of restrictions in access to contraception and STI testing based on age and where people lived.

And in June, the Chancellor of the Exchequer announced a £200 million reduction to the current public health budget, prompting this updated report.

The findings highlight the intricate economics of sexual and reproductive health, and sometimes it is difficult to digest the reality of such enormous numbers – costs in coming years that total many billions of pounds. It's crucial we remember that behind these numbers are real people facing the real consequences and challenges of these changes.

It has become increasingly apparent in recent years that sexual health has been relegated as a public health priority, despite it being one of few areas of health which affects everybody in some way for a large proportion of their lives.

It is perhaps an easy target; our hard won rights of contraceptive choices and access to sexual and reproductive health services can feel like the status quo we don't need to worry about – Sexual health? We've got it sorted. But this is a false sense of security.

Despite the legacy of the Teenage Pregnancy Strategy resulting in the lowest rates of pregnancy among under-18s on record, the UK still has some of the highest rates in Europe. And our STI rates remain high, with young people most at risk. This is our current situation, before any cuts, and at a time when we are already hearing about sexual health and contraceptive services lacking investment, and primary care under increasing pressure.

This is not the time to cut spending; to do so would be short-sighted and counterproductive. It makes economic sense to invest, but beyond that, having the means to enjoy good sexual and reproductive health should be a basic fact of life in 2015, not something we have to keep fighting for.

Natika H Halil
Chief Executive, FPA

Commentary

When the first *Unprotected Nation* report was published in 2013, I said it made for stark reading for clinicians who are concerned about the impact of service restrictions on people's lives, as well as for those who make financial decisions. Since then we have seen further evidence of cuts already biting into sexual and reproductive health around the country; services closing, contraception seemingly pushed down the agenda, and a lack of investment in professionals' training.

A study by the Advisory Group on Contraception (AGC) in 2014 found 2.9 million women in England were living in an area where contraceptive services were being commissioned without a proper assessment of services, outcomes and experience. Further, one-third of councils in England said they had no plan in place to reduce unintended pregnancies in their area.

This updated report, covering the potential impact of unplanned pregnancies and sexually transmitted infections on public spending over the next decade, makes for even starker reading and gives a very clear warning how an already difficult commissioning environment could become even worse.

It is so clear that investment in services, as part of an overall sexual and reproductive health programme – which must also include a stronger focus on education – at the very least makes good economic sense. More than that, clinicians need investment so we can fulfil our duty of care to the people who access our services.

Dr Anne Connolly

GP: Bevan Healthcare, Bradford and

Chair of the Primary Care Women's Health Forum

Section 1 – Summary

Context for the study

- 1.1 This report presents updated findings of a study published in January 2013: *Unprotected Nation – The Financial and Economic Impacts of Restricted Contraceptive and Sexual Health Services*. The 2013 study revealed that unintended pregnancies and sexually transmitted infections (STIs) could have a substantial cost for the UK over the period 2013–2020. This expenditure included spending on health services, but also spending on areas such as social welfare, housing and education.
- 1.2 This 2015 update has been produced because of concerns that the availability of sexual health and contraceptive services across the UK are under threat due to anticipated cutbacks in public health expenditure. In particular, on 4 June 2015 the Chancellor announced a £200 million cut in public health budgets devolved to local authorities.¹ It is unclear how these cuts will be administered locally, but the uniform reduction of 6.2 per cent spending across each authority does not take into account varying local needs or current states of service provision. It is likely that sexual health and contraceptive services would be greatly affected given that they account for around 10 per cent of overall public health spending.

Key findings

- 1.3 This update study confirms that unintended pregnancies and sexually transmitted infections (STIs) are expected to have very significant impacts on public expenditure over the next 5–10 years.
- 1.4 Based on the 10 per cent reduced access scenario detailed on page 9. The total cost of unintended pregnancies and STIs could be as much as **£77.750 billion** over the period **2015–2020** and **£259.012 billion** over the period **2015–2025**.²

¹ HM Treasury, Chancellor announces £4.5 billion of measures to bring down debt, 4 June 2015. Available at: <https://www.gov.uk/government/news/chancellor-announces-4-billion-of-measures-to-bring-down-debt>

² All financial values are provided in 2014 prices and are undiscounted.

1.5 The breakdown of the key findings is set out in Table 1-1.

Table 1-1: Summary of key findings (£ millions, 2014 prices)		
Expenditure theme	2015–2020	2015–2025
Health costs – current access scenario	11,831	24,263
Additional health costs with reduced access	1,455	3,489
Non-health costs – current access scenario (maximum)	57,261	202,880
Additional non-health costs with reduced access (maximum)	7,203	28,380
Overall costs under reduced access (maximum)	77,750	259,012

Source: *Development Economics*

1.6 This includes up to **£8.658 billion** of additional public sector costs (health and non-health related) over the period **2015–2020**, and up to **£31.869 billion** over the period **2015–2025** which are estimated costs incurred directly as a result of **reduced access to services**.

1.7 If the cuts to public health spending already announced become the norm over the next five years, every **£1 of expenditure cut** could cost the UK as much as **£86** further down the line.³ Over 10 years, **each £1 saving could cost the UK £159**.⁴

1.8 In terms of **health expenditure and unintended pregnancies**, expected future expenditures under the **current access scenario** (that is assuming existing levels of service continue) are expected to amount to:

- £8.200 billion over the 2015–2020 period
- £17.616 billion over the 2015–2025 period.

1.9 In terms of **health expenditure and sexually transmitted infections**, expected future expenditures under the **current access scenario** (that is assuming existing levels of service continue) are expected to amount to:

- £3.631 billion over the 2015–2020 period
- £6.647 billion over the 2015–2025 period.

³ This ratio is on the basis that over five years, the cuts could save £100 million but incur additional costs of £8.658 billion.

⁴ This ratio is on the basis that over 10 years, the cuts could save £200 million but incur additional costs of £31.869 billion.

1.10 In terms of **wider (non-health) public expenditure and unintended pregnancies**, as with the 2013 report, the estimates are provided as a range because the implications for social welfare expenditure are very dependent on the circumstances of the individuals and households.

The potential future public spending implications are expected to lie within the following limits:

- between £27.319 billion and £57.260 billion over the 2015–2020 period
- between £113.702 billion and £202.880 billion over the 2015–2025 period.

1.11 These figures are provided in order to underline the enormous longer term public spending implications of unintended pregnancies that lead to live births of children.

Future scenarios

1.12 With respect to expected downstream effects on **health expenditure**, the imposition of significant cutbacks to sexual health and contraceptive services can be expected to have short and long terms effects on health spending with respect to increased numbers of unintended pregnancies and sexually transmitted infections (STIs).

1.13 In considering the future, two forward-looking “what if?” scenarios were developed to assess the potential impact on health and wider public expenditure of potential cutbacks to sexual health and contraceptive services. The scenarios in brief are:

- **Current access scenario.** Under this scenario, it is assumed that the current (2015) level of service availability is maintained. It is assumed that 2013 rates of unintended pregnancy and associated outcomes – abortions, miscarriages, stillbirths and live births – are maintained, but that these are applied to a growing and changing population, so levels of unintended pregnancy will still change year-on-year in line with expected demographic trends. Moreover, with respect to STIs, it is assumed that the trajectory of change identified by infections data published by Public Health England⁵ (applied to the UK as a whole) will continue.

⁵ Public Health England. Health Protection Report *Sexually Transmitted Infections and Chlamydia Screening in England, 2014*. Published 23 June 2015, available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/437433/hpr2215_STI_NCSP_v6.pdf

- **Reduced access scenario.** This scenario considers the potential longer term health and wider public expenditure implications of a 10 per cent cut in sexual health and contraceptive services expenditure across the UK. Specifically, under this scenario it is assumed that progress made over the past decade with respect to reducing rates of unintended pregnancy would be reversed. It is also assumed that rates of STI diagnoses (which in some cases are already increasing significantly) will worsen.
- 1.14 Overall, this study anticipates that **additional** health spending amounting to around £1.455 billion could arise over the 2015–2020 period alone, and £3.489 billion over the longer period, 2015–2025.
- Abortions, miscarriages and births over the 2015–2020 period: £642 million; and over the 2015–2025 period: £1.178 billion.
 - Postnatal care and children’s healthcare over the 2015–2020 period: £450 million; and over the 2015–2025 period: £1.201 billion.
 - STIs over the 2015–2020 period: £363 million; and over the 2015–2025 period: £1.110 billion.
- 1.15 When expected downstream effects on other (non-health) areas of public expenditure are considered – including **social welfare, housing and education** – of children born as a result of unplanned pregnancies, the implications for additional public spending are likely to be significantly greater.
- Overall, the potential net additional increase in wider public spending associated with additional unintended pregnancies over 2015–2020 is expected to be between £3.806 billion and £7.203 billion.
 - Over the longer period (2015–2025), the potential net additional increase in wider public spending associated with additional unintended pregnancies is expected to lie within the range £16.663 billion and £28.380 billion.
- 1.16 Table 1-2 presents the estimated additional public expenditure implications of the **reduced access scenario** compared to the **current access scenario** for two time periods: 2015–2020 and 2015–2025. For two of the themes (social welfare and personal social services) the differences are presented in two rows, reflecting the minimum and maximum differences respectively. For this reason the overall totals are also presented as a range.

Table 1-2: Summary of overall potential increases in wider public expenditure under the reduced access scenario compared to the current access scenario (£ millions, 2014 prices)

Expenditure theme	2015–2020 reduced access scenario vs current access scenario	2015–2025 reduced access scenario vs current access scenario
Social welfare (minimum)	1,411	4,997
Social welfare (maximum)	4,222	14,958
Personal social services (minimum)	201	601
Personal social services (maximum)	787	2,357
Housing	425	1,272
Education	1,769	9,793
Total (minimum)	3,806	16,663
Total (maximum)	7,203	28,380

Source: Development Economics

Section 2 – Introduction

Context for the study

- 2.1 This report presents updated findings of a study published in January 2013: *Unprotected Nation – The Financial and Economic Impacts of Restricted Contraceptive and Sexual Health Services*. The 2013 study was commissioned because of concerns that around 3.2 million women in Britain were at that time experiencing restrictions in obtaining sexual health and contraceptive services. The 2013 study revealed that unintended pregnancies and sexually transmitted infections (STIs) could cost the UK between £84 billion and £127 billion over the period 2013–2020. This expenditure range included spending on health services, but also spending on areas such as social welfare, housing and education.
- 2.2 This 2015 update has been produced because of concerns that the availability of sexual health and contraceptive services across the UK are under threat due to anticipated cutbacks in public health expenditure. In particular, on 4 June 2015 the Chancellor announced a £200 million cut in public health budgets devolved to local authorities.⁶ It is unclear how these cuts will be divided, but it is likely that sexual health and contraceptive services would be affected, given that these services account for around 10 per cent of overall public health expenditure. If the cuts to public health spending already announced become the norm over the next five years, every **£1** cut could cost the UK as much as **£86**. Over 10 years, every £1 of expenditure saved could cost **£159**.
- 2.3 Any cuts in sexual and reproductive health services would be a false economy, given the likely consequences for additional pressure on health service expenditure resulting from increased rates of unintended pregnancy and sexually transmitted infection.
- 2.4 The Advisory Group on Contraception (AGC) has concluded that a projected cut of 10 per cent in local sexual health and contraceptive services budgets could result in additional costs to the NHS of £250 million per annum, based on a ratio of 11:1 between expenditure and downstream health costs averted.⁷ However, this conclusion focused on health costs only, and did not consider the potential impact on other areas of public expenditure.

⁶ HM Treasury, *Chancellor announces £4.5 billion of measures to bring down debt*, 4 June 2015. Available at: <https://www.gov.uk/government/news/chancellor-announces-4-billion-of-measures-to-bring-down-debt>

⁷ Letter sent by the AGC to George Osborne, dated 25 June 2015: <http://theagc.org.uk/wp-content/uploads/2015/08/AGC-response-to-public-health-consultation-FINAL-28.08.15.pdf>

- 2.5 There is also a concern that the consequences of public health cutbacks will be experienced most severely in deprived communities, as a disproportionate number of both new STI diagnoses and teenage pregnancies occur in areas of high deprivation.
- 2.6 This update study focuses on the potential longer term public expenditure implications of anticipated cutbacks in the sexual health and contraceptive services component of public health expenditure. In particular, the update focuses on additional pressures for downstream public spending that could arise if the number of unintended pregnancies that result in live births increases due to cutbacks.
- 2.7 The update also covers the potential downstream implications for health spending by the public sector, and also the potential consequences for other areas of public spending, including on social welfare, housing and education.

Methodology

- 2.8 To generate the findings in this 2015 update, a very similar methodology was used to the original 2013 study, in particular:
- a review has been undertaken of national demographic trends, and also in rates of conception, abortion, miscarriage, stillbirth and live birth over the 2000–2014 period
 - a review has been undertaken on recent trends in rates of sexually transmitted infection (STI) diagnoses
 - a review has been undertaken of up-to-date estimates of health and other relevant aspects of public expenditure across the UK and (where expenditure is devolved) its constituent countries.
- 2.9 Following a review of recent demographic and health trends, two forward-looking scenarios were developed to gauge the potential impact on health and wider public expenditure of cutbacks to sexual health and contraceptive services:
- **Current access scenario.** In order to develop a **current access scenario**⁸, a scenario was constructed whereby it is assumed that the current level of service availability is maintained. Under this scenario, it is assumed that 2013 rates of unintended pregnancy and associated outcomes – abortions, miscarriages, stillbirths and live births – are maintained, but that these are applied to a growing and changing population, so levels of unintended pregnancy will still change year-on-year in line with expected demographic trends.

⁸ This provides a baseline scenario against which the implications of alternative policies or other factors can be assessed or tested.

- In effect, this scenario models the potential impact of current (2015) levels of access to contraception and sexual health services, but applied to the growing and changing demographic characteristics of the national population over the next 5–10 years.
- With respect to STIs, it is broadly assumed that the trajectory of change identified by infections data published by Public Health England⁹ (applied to the UK as a whole) will continue.¹⁰
- **Reduced access scenario.** This scenario considers the potential longer term health and wider public expenditure implications of a 10 per cent cut in sexual health and contraceptive services expenditure across the UK. Specifically, it is assumed that under this scenario:
 - rates of unintended pregnancy for females aged 13–19 revert to the rates observed in 2003: that is, the progress made in reducing conception rates among teenagers over the past decade is lost
 - rates of unintended pregnancy among women aged 20–24 also revert to 2003 levels
 - rates of unintended pregnancy among women aged 25 and over also worsen, exacerbating a trend that has been observed among women in this age group in recent years
 - with respect to STI rates, it is assumed that there would be a 5 per cent increase in rates of diagnoses for types of infection where 2011–2014 rates have been increasing (chlamydia, anogenital herpes, syphilis) with the exception of gonorrhoea, where it is assumed that the 2011–2014 rate of growth will moderate to a level of annual growth that is equivalent to three-quarters of the average annual rate over the 2011–2014 period. For other infections where there have been recent reductions in the rates of diagnoses (non-specific genital infection, pelvic inflammatory disease, anogenital warts) it is assumed that this would be replaced with a growth rate of 1 per cent per annum.

2.10 More details on methodology are provided in an appendix to this report.

2.11 Sensitivity tests for the key results are also provided in an appendix.

⁹ Public Health England. Health Protection Report *Sexually Transmitted Infections and Chlamydia Screening in England, 2014*. Published 23 June 2015, available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/437433/hpr2215_STI_NCSP_v6.pdf

¹⁰ An exception was made with respect to rates of gonorrhoea infection. The average 2011–2014 growth rate of infection is very high (over 18 per cent per annum), and under the current access scenario it is assumed that this will reduce to an average 9 per cent per annum over the periods under consideration.

Relationship with the 2013 study

- 2.12 It is not straightforward to compare the estimates provided in this update study with those in the 2013 study. This is in part because the original estimates included an additional element (local expenditure on poverty programmes) which has not been included in this update. In addition, the original estimates were for a seven year period (2013–2020) whereas the update focuses on two periods of five and 10 years respectively (2015–2020 and 2015–2025).
- 2.13 Nevertheless, an estimate can be made by focusing on the average annual costs associated with unintended pregnancies and sexually transmitted infections (STIs) over the entirety of the respective appraisal periods. Taking this approach, the results presented in this update amount to an increase of approximately 20 per cent in real terms (that is excluding inflation) compared to the equivalent annual costs that were reported in the original 2013 study.
- 2.14 Although the coverage of this 2015 update is similar to that undertaken in 2013, there are a number of differences.
- 2.15 First, the timeframe for the study has necessarily changed. Whereas the previous study considered the 2013–2020 period, the update considers two periods:
- the financial years 2015/16 to 2020/21 (that is the current financial year plus the five following years)
 - the financial years 2015/16 to 2025/26 (that is the current financial year plus the 10 following years).
- 2.16 Also, where the 2013 report presented results in terms of 2011 prices, the 2015 update has used a 2014 price base.
- 2.17 A third difference concerns the coverage of the wider public expenditure implications of reduced levels of sexual health and contraceptive services. One of the aspects considered by the original 2013 study concerned the potential implications for public spending on children in areas that qualify for Government anti-poverty programmes.¹¹ This aspect was included because there is a very clear link between poverty and unintended pregnancy. Altogether, this element of the previous study accounted for around 2.5 per cent of the overall estimated medium-term costs of unintended pregnancies in the 2013 study.
- 2.18 However, changes to Government programmes since 2010 mean that expenditure of this type is increasingly localised, and it is much more difficult to arrive at national estimates of what the longer term implications for public spending of this type might be. On that basis, this element has been excluded from the 2015 update. This is not to say that cutbacks to sexual health and contraceptive services would have no implications for expenditure of this type, but with no robust means of measuring the implications it was decided to exclude it from the analysis.

¹¹ The original study identified that, with cutbacks, an additional £80 million may be required in public expenditure for these programmes over the period 2013–2020.

Section 3 – Health Costs

- 3.1 This chapter sets out the basis of the future scenarios for rates of unintended pregnancy and the outcomes in terms of abortions, miscarriages, stillbirths and live births. It also sets out the basis for the future scenarios in terms of sexually transmitted infections (STIs).
- 3.2 The potential future public expenditure implications for health budgets under both a **current access scenario** and a **reduced access scenario** are then explored.

Unintended pregnancy

- 3.3 Up-to-date Office for National Statistics (ONS) population projections (2012-based) have been used to estimate the likely number of females of child-bearing age in the UK over the period 2015/16–2025/26. ONS data has also been used to estimate current levels and recent trends in conception and abortion for women in different age groups (teenagers and women aged 20–24, 25–29, 30–34, 35–39 and 40–49 respectively). Estimates of the proportion of pregnancies that are unintended were obtained from Natsal 3 – the third National Survey of Sexual Attitudes and Lifestyles.¹²
- 3.4 Evidence from the various ONS data series indicates that the number of teenage pregnancies has continued to fall in the UK, but that the UK rate remains higher than most other Western European countries. Conversely, abortion rates (a proxy for the number of pregnancies that are unintended) among women in their 30s and older have been rising in recent years.
- 3.5 The potential implications of cutbacks to sexual health and contraceptive services could be that:
 - some or all of the progress that has been made with respect to reducing rates of teenage pregnancy over the past decade could be lost; and that
 - rates of unintended pregnancy among women aged in their mid-20s and over could increase at a faster rate.

¹² The prevalence of unplanned pregnancy and associated factors in Britain: findings from the third National Survey of Sexual Attitudes and Lifestyles (Natsal-3) available at: [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(13\)62071-1/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(13)62071-1/abstract)

- 3.6 Both of these trends – if they occur – would have direct consequences for NHS budgets, in terms of additional costs in providing abortions, providing treatment for women who miscarry, and providing services to women undergoing childbirth. Up-to-date assumptions with respect to the average cost of providing childbirth services to women have been made using data for 2009/10 found in a report published by The National Institute for Health and Care Excellence (NICE).¹³ Data from NICE has also been used to estimate NHS costs of providing abortion services¹⁴ and treating episodes of miscarriage.¹⁵ All of these various average cost estimates have been updated to a 2014 price basis using inflation indices provided in the publication *Unit Costs of Health and Social Care 2014*, published by the Personal Social Services Research Unit (PSSRU).¹⁶
- 3.7 Table 3-1 sets out the expected outcomes for unintended pregnancies in the UK under each of the two scenarios considered in this report. The table includes 2014 baseline data, and ‘snapshot’ estimates for the years 2020 and 2025 respectively.

Table 3-1: Estimated outcomes of unintended pregnancies in the UK, 2014, 2020, 2025 (thousands)					
Outcomes	2014 baseline	2020 current access	2025 current access	2020 reduced access	2025 reduced access
Abortions	196.0	191.8	190.7	206.2	206.3
Miscarriages and stillbirths	49.1	49.1	49.0	54.6	54.7
Live births	296.0	292.6	289.2	333.1	331.4
Total	541.1	533.5	528.9	593.9	592.4

Source: *Development Economics*

¹³ NICE *Caesarean section (update) Costing Report*, available at: <https://www.nice.org.uk/guidance/cg132/resources/costing-report-184766797>

¹⁴ NICE *Public Health Guidance 51*, available at: <http://www.nice.org.uk/guidance/ph51>

¹⁵ NICE *Long-acting reversible contraception, NICE guidelines [CG30]*: <https://www.nice.org.uk/guidance/cg30>

¹⁶ PSSRU *Unit Costs of Health and Social Care 2014*, available at: <http://www.pssru.ac.uk/project-pages/unit-costs/2014/>

- 3.8 Given the underlying demographic trends, it is expected that with the continuation of 2013 rates (that is the **current access scenario**), the number of unintended pregnancies would fall by around 12,000 per annum by 2025 compared to 2014. However, under a scenario of reduced services, the number of unintended pregnancies would be expected to increase by additional 63,000 per annum by 2025, which would represent an overall increase of 12 per cent (compared to the **current access scenario**).
- 3.9 The expected costs associated with unintended pregnancies under each of these scenarios is summarised in Table 3-2.

Table 3-2: Estimated health service cost implications of unintended pregnancies in the UK, 2015–2020 and 2015–2025 (£ millions, 2014 prices)				
Outcomes	2015–2020 current access	2015–2025 current access	2015–2020 reduced access	2015–2025 reduced access
Abortions	803	1,460	864	1,573
Miscarriages and stillbirths	115	209	128	234
Live births	4,057	7,381	4,625	8,422
Total	4,975	9,051	5,617	10,229

Source: Development Economics

- 3.10 Even under the **current access scenario**, it is clear that the healthcare costs associated with unintended pregnancy would be very substantial over the next 5–10 years. The overall costs expected under the **current access scenario** amount to £9.051 billion over the 2015–2025 period.
- 3.11 However, the results indicate that reduced access to services that are associated with cutbacks to public health expenditure would result in serious consequences for healthcare budgets.
- For the 2015–2020 period, the expected increase in healthcare expenditure would amount to an additional £642 million in health expenditure compared to the **current access scenario**.
 - Over the longer 2015–2025 period, the expected increase in healthcare expenditure would amount to an additional £1.178 billion in health expenditure compared to the **current access scenario**.

Health costs of providing services to children

3.12 Additional implications for healthcare expenditure arise from unintended pregnancies that lead to live births. These implications include:

- postnatal healthcare, including where complications arise
- childcare provided to infants and children, including acute and non-acute care.

3.13 Assumptions about average levels of expenditure on postnatal care have been obtained from a recent (2012) NHS report.¹⁷ Average levels of expenditure on acute and non-acute health services provided to infants and young children have been obtained from a 2013 report published by the Personal Social Services Research Unit (PSSRU).¹⁸ All of these various average cost estimates have been updated to a 2014 price basis using inflation indices provided in the publication *Unit Costs of Health and Social Care 2014*, published by the PSSRU (see section 3.6).

Table 3-3: Estimated health service cost implications of providing postnatal and children’s health services to children born as a result of unintended pregnancy, 2015–2020 and 2015–2025 (£ millions, 2014 prices)

Outcomes	2015–2020 current access	2015–2025 current access	2015–2020 reduced access	2015–2025 reduced access
Postnatal care	898	1,633	1,023	1,864
Acute children’s care	1,496	4,455	1,704	5,079
Non-acute children’s care	831	2,476	947	2,823
Total	3,225	8,565	3,675	9,766

Source: *Development Economics*

¹⁷ NHS Commissioning Board *Commissioning Maternity Services Resource Pack*, July 2012 available at: <http://www.england.nhs.uk/wp-content/uploads/2012/07/comm-maternity-services.pdf>

¹⁸ PSSRU *Unit Costs of Health and Social Care 2013*, available at: <http://www.pssru.ac.uk/project-pages/unit-costs/2013/>

- 3.14 Under the **current access scenario**, it is estimated that the expenditure implications of providing additional postnatal care would amount to £1.633 billion over the 2015–2025 period. When healthcare costs provided to children born as a result of unintended pregnancy are included, these estimated costs rise to £8.565 billion over the same time period.
- 3.15 Although it is important to recognise the very large longer term health expenditure costs associated with current levels of unintended pregnancy leading to births, the key focus of this report is the potential additional costs associated with a reduction in the levels of publicly funded sexual health and contraceptive services. The additional costs associated with the **reduced access scenario** compared to the **current access scenario** are estimated to be:
- for the 2015–2020 period, an increase of £450 million in health expenditure compared to the **current access scenario**
 - for the 2015–2025 period, an increase of £1.201 billion compared to the **current access scenario**.

Sexually transmitted infections (STIs)

- 3.16 Data on recent trends on the incidence of STIs has been obtained from Public Health England.¹⁹ As was the case with the 2013 report, average rates of incidence per head of population in England were used to estimate national levels of incidence for the UK as a whole.
- 3.17 Table 3-4 sets out the expected outcomes for STIs in the UK under each of the two scenarios considered in this report. The table includes 2014 baseline data, and ‘snapshot’ estimates for STI infections in the years 2020 and 2025 respectively.

Table 3-4: Estimated new STI diagnoses in the UK, 2014, 2020, 2025 (thousands)					
STIs	2014 baseline	2020 current access	2025 current access	2020 reduced access	2025 reduced access
Chlamydia	245.9	298.5	350.9	301.4	357.1
Gonorrhoea	41.6	70.4	109.2	90.1	171.7
Anogenital herpes	37.8	39.3	40.6	39.4	40.8
NSGI ²⁰	55.0	36.7	26.2	58.4	61.4
PID ²¹	24.3	20.9	18.4	25.8	27.1
Syphilis	5.1	11.2	21.3	11.6	22.8
Anogenital warts	84.0	71.5	62.5	89.1	93.7
Other new STI cases	28.7	25.5	23.1	30.5	32.1
Total	522.4	574.0	652.3	646.3	806.6

Source: Development Economics

¹⁹ Public Health England. Health Protection Report *Sexually Transmitted Infections and Chlamydia Screening in England, 2014*. Published 23 June 2015, available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/437433/hpr2215_STI_NCSP_v6.pdf

²⁰ Non-specific genital infection.

²¹ Pelvic inflammatory disease.

- 3.18 Under the **current access scenario**, by 2020 the increase in new STI diagnoses compared to 2014 levels is expected to be about 9.8 per cent, driven mainly by expected increases in chlamydia and gonorrhoea infections. Under the **reduced access scenario**, however, the expected increase is much higher, at 23 per cent. The increases by 2025 are even higher, at 24 per cent and 54 per cent respectively.
- 3.19 Health costs associated with treating STIs have been sourced from a report issued by the North West Public Health Observatory (2005),²² updated to a 2014 price basis in line with the Personal Social Services Research Unit (PSRRU) cost guide referred to in section 3.6.
- 3.20 Table 3-5 summarises the healthcare costs associated with expected future cases of new STIs under the two scenarios for periods 2015–2020 and 2015–2025 respectively. As before, all costs are provided using a 2014 price base.

Table 3-5: Estimated health service cost implications of new STI diagnoses, 2015–2020 and 2015–2025 (£ millions, 2014 prices)

Outcomes	2015–2020 current access	2015–2025 current access	2015–2020 reduced access	2015–2025 reduced access
Chlamydia	1,384	2,762	1,392	2,790
Gonorrhoea	66	154	77	206
Anogenital herpes	175	326	175	326
NSGI ²³	493	777	643	1,208
PID ²⁴	251	433	283	533
Syphilis	19	52	20	54
Anogenital warts	940	1,615	1,068	2,008
Other new STI cases	303	529	336	631
Total	3,631	6,647	3,994	7,757

Source: *Development Economics*

²² North West Public Health Observatory, *Counting the Cost: the Economics of Sexually Transmitted Infections*, (2005).

²³ Non-specific genital infection.

²⁴ Pelvic inflammatory disease.

3.21 On the basis of the assumptions that underpin the scenarios, the additional cost implications of reduced sexual health and contraception services would be as follows:

- for the 2015–2020 period, an increase of £363 million compared to the **current access scenario**
- for the 2015–2025 period, an increase of £1.110 billion compared to the **current access scenario**.

Overall implications for health expenditure

3.22 Table 3-6 provides a summary of the expected future public spending implications of unintended pregnancies and sexually transmitted infections (STIs) under the **current access scenario**. The figures in the table underline that even if current levels of service are maintained, the future health spending implications are very substantial.

Table 3-6: Summary of expected future health-related public spending under the current access scenario (£ millions, 2014 prices)		
Expenditure theme	2015–2020	2015–2025
Abortions, miscarriages and births	4,975	9,051
Postnatal care and children’s healthcare	3,225	8,565
STIs	3,631	6,647
Total	11,831	24,263

Source: Development Economics

3.23 Even if current levels of service are maintained, unintended pregnancies and STIs are expected to cost the UK’s health budgets around £11.8 billion over the 2015–2020 period, and over £24 billion over the 2015–2025 period.

3.24 Having considered the potential implications of reduced sexual health and contraception services for three separate areas of future health expenditure, Table 3-7 provides a summary of the findings. The table presents the potential additional expenditure, net of the **current access scenario** (that is it presents the difference between the **reduced access scenario** and the **current access scenario** for each of the two time periods).

Table 3-7: Summary of overall potential increases in public health expenditure under the reduced access scenario compared to the current access scenario (£ millions, 2014 prices)

Expenditure theme	2015–2020 reduced access vs current access scenario	2015–2025 reduced access vs current access scenario
Abortions, miscarriages and births	642	1,178
Postnatal care and children’s healthcare	450	1,201
STIs	363	1,110
Total	1,455	3,489

Source: Development Economics

- 3.25 Overall, the potential additional increase in health expenditure over the period 2015–2020, resulting from anticipated cutbacks to sexual health and contraceptive services, could amount to £1.455 billion compared to the expected situation under the **current access scenario**.
- 3.26 Over the longer period, 2015–2025, the potential additional increase in health expenditure resulting from cutbacks could amount to £3.489 billion compared to the **current access scenario**.

Section 4 – Other Public Sector Costs

- 4.1 This chapter considers the wider public expenditure implications of unintended pregnancies, in particular those that lead to live births. The following aspects of future public expenditure are included within the scope of this assessment:
- expenditure on social welfare programmes
 - expenditure on personal social services
 - public housing costs
 - education costs.
- 4.2 As was explained in the introduction, this update does not cover expenditure on anti-poverty programmes (an element that was included in the 2013 report).

Children born from unintended pregnancies

- 4.3 A key assumption used in the modelling of wider public sector cost implications is the expected cumulative number of children born as a result of unintended pregnancies. These totals are a function of the overall number of unintended pregnancies, and the proportion that result in live births. Additional assumptions are made regarding infant and child mortality, based on actuarial tables published by the Office for National Statistics (ONS).²⁵ Table 4-1 presents the expected number of additional children of different ages expected under each of the two scenarios for years 2020 and 2025 respectively.

²⁵ Office for National Statistics *National Life Tables*, available at: <http://www.ons.gov.uk/ons/rel/lifetables/national-life-tables/index.html>

Table 4-1: Expected number of children from unintended pregnancy: 2020 and 2025 (thousands)

Age of child	2020 current access	2025 current access	2020 reduced access	2025 reduced access
<1	291.4	288.1	331.7	330.0
1–2	291.3	288.0	331.6	329.9
2–3	291.3	287.9	331.5	329.9
3–4	292.7	287.9	333.1	329.4
4–5	293.7	288.1	334.5	329.1
5–6	294.2	288.8	335.4	329.3
6–7	0.0	289.8	0.0	330.1
7–8	0.0	291.1	0.0	331.4
8–9	0.0	292.6	0.0	332.9
9–10	0.0	293.6	0.0	334.3
10–11	0.0	294.1	0.0	335.3
Total	1,754.6	2,602.1	1,997.7	2,971.9

Source: Development Economics

4.4 On the basis of the assumptions that underpin the scenarios:

- by 2020 there would be an additional 243,000 children – in cumulative terms – under the **reduced access scenario** compared to the **current access scenario**
- by 2025 there would be an additional 370,000 children – in cumulative terms – under the **reduced access scenario** compared to the **current access scenario**.

Social welfare expenditure

- 4.5 The annual public sector financial costs associated with social welfare expenditure are expected to increase in line with the anticipated cumulative increase in the number of children from unintended pregnancies. Three aspects of social welfare spending associated with children have been considered as part of this report: child benefit, child tax credit, and the childcare part of working tax credit.
- 4.6 Individual entitlements to tax credits in particular are complicated, and depend on household income and other circumstances. The approach taken here – as was the case with the 2013 report – has been to calculate likely minimum and maximum ranges of public expenditure associated with these programmes, given the current levels of entitlements and the rules that are currently in place. The assumptions used in this assessment are based on up-to-date information on levels of benefits and rules for entitlement obtained from the Department for Work and Pensions and other Government sources.
- 4.7 Table 4-2 sets out the respective minimum and maximum potential costs associated with social welfare expenditure based on the numbers of additional children resulting from unintended pregnancy expected under each scenario.

Table 4-2: Estimated overall social welfare costs associated with children from unintended pregnancies, 2015–2020 and 2015–2025 (£ millions, 2014 prices)

Timeframe	current access minimum	current access maximum	reduced access minimum	reduced access maximum
–	10,118	30,137	11,529	34,359
2015–2025	35,850	106,778	40,847	121,736

Source: *Development Economics*

- 4.8 On the basis of the assumptions that underpin the scenarios, the additional social welfare cost implications of reduced sexual health and contraception services would be as follows:
- for the 2015–2020 period, the increase in additional public expenditure is expected to lie within the range £1.411 billion to £4.222 billion compared to the **current access scenario**; and
 - for the 2015–2025 period, the increase is expected to lie within the range £4.997 billion to £14.958 billion compared to the **current access scenario**.

Personal social services

- 4.9 Personal social services (PSS) for children refers to statutory requirements for public expenditure on care, support, guidance and regulation with respect to children who experience circumstances such as abuse, neglect, disability, low income or absence of parents. Expenditure on PSS is associated with the circumstances of the household, and is strongly linked to poverty and deprivation. Evidence from the Joseph Rowntree Foundation is that PSS expenditure in poor areas is up to four times the overall average.²⁶
- 4.10 Because the circumstances leading to PSS expenditure are complex, the approach taken here is to calculate a range, with the lower end estimated on the basis of children born into average circumstances and the higher end for children born into deprived socio-economic conditions.
- 4.11 Table 4-3 sets out the respective minimum and maximum potential costs associated with personal social services expenditure, based on the numbers of additional children resulting from unintended pregnancy expected under each scenario.

Table 4-3: Estimated expenditure on personal social services associated with children from unintended pregnancies, 2015–2020 and 2015–2025 (£ millions, 2014 prices)

Timeframe	current access minimum	current access maximum	reduced access minimum	reduced access maximum
2015–2020	1,441	5,650	1,642	6,437
2015–2025	4,291	16,828	4,892	19,185

Source: *Development Economics*

- 4.12 On the basis of the assumptions that underpin the scenarios, the additional personal social services expenditure implications of reduced sexual health and contraception services would be as follows:
- for the 2015–2020 period, the increase in expenditure is expected to lie within the range £201 million to £787 million compared to the **current access scenario**
 - for the 2015–2025 period, the increase is expected to lie within the range £601 million to £2.357 billion compared to the **current access scenario**.

²⁶ Joseph Rowntree Foundation *The Public Service Costs of Child Poverty*, (2008).

Housing

4.13 The next topic to consider concerns the potential implications for housing benefits paid to qualifying households with additional children born as a consequence of unintended pregnancy. These financial estimates are based on data on levels of entitlements and payments obtained from the Department for Work and Pensions (DWP).²⁷ Table 4-4 presents the estimated additional expenditure under each of the two scenarios.

Table 4-4: Estimated additional expenditure on housing benefits associated with children from unintended pregnancies, 2015–2020 and 2015–2025 (£ millions, 2014 prices)

Timeframe	current access scenario	reduced access scenario
2015–2020	3,049	3,474
2015–2025	9,081	10,353

Source: *Development Economics*

4.14 On the basis of the assumptions that underpin the scenarios, the housing benefits expenditure implications of reduced sexual health and contraception services would be as follows:

- for the 2015–2020 period, the increase in expenditure is expected to be £425 million compared to the **current access scenario**
- for the 2015–2025 period the increase is expected to be £1.272 billion compared to the **current access scenario**.

Education

4.15 The final theme for consideration is that of the education of children born as a result of unintended pregnancy. Two aspects have been considered:

- the costs of pre-primary education for the proportion of children that attend
- primary school education for children aged up to 10.

²⁷ Office for National Statistics *Benefit Expenditure and Caseload Tables*, available at: <https://www.gov.uk/government/statistics/benefit-expenditure-and-caseload-tables-2015>

- 4.16 It is assumed that no children born in or after 2015 will have begun secondary school education by the end of the time period considered in this assessment.
- 4.17 Data on the average costs of delivery of different types of education have been obtained from two sources:
- a research paper published by parliament²⁸
 - a statistical report published by the UK government.²⁹
- 4.18 Table 4-5 sets out the conclusions on potential costs of additional education, based on the expected numbers of pre-school and school age children set out in Table 3-1 (section 3.7).

Table 4-5: Estimated additional education expenditure associated with children from unintended pregnancies, 2015–2020 and 2015–2025 (£ millions, 2014 prices)

Timeframe	current access scenario	reduced access scenario
2015–2020	12,712	14,481
2015–2025	70,193	79,986

Source: *Development Economics*

- 4.19 On the basis of the assumptions that underpin the scenarios, the additional education expenditure implications of reduced sexual health and contraception services would be as follows:
- for the 2015–2020 period, the increase in expenditure is expected to be £1,769 billion compared to the **current access scenario**; and
 - for the 2015–2025 period the increase is expected to be £9.793 billion compared to the **current access scenario**.

²⁸ House of Commons Library, *Education Spending in the UK*, December 2014, available at: <http://researchbriefings.files.parliament.uk/documents/SN01078/SN01078.pdf>

²⁹ Office for National Statistics, *Schools, Pupils and Their Characteristics*, January 2013, available at: <https://www.gov.uk/government/statistics/schools-pupils-and-their-characteristics-january-2013>

Conclusions on other public sector costs

4.20 Table 4-6 provides a summary of the expected future wider public spending implications of unintended pregnancy under the **current access scenario**. As explained in 1.16, the figures for social welfare and personal social service spending are provided as a range.

4.21 The figures in the table underline that even if current levels of service are maintained, the future public spending implications for social welfare, housing benefits and education budgets would be very large indeed.

Table 4-6: Summary of expected future wider public spending implications under the current access scenario (£ millions, 2014 prices)		
Expenditure theme	2015–2020	2015–2025
Social welfare (minimum)	10,118	30,137
Personal social services (minimum)	1,441	4,291
Housing	3,049	9,081
Education	12,712	70,193
Total (minimum)	27,320	113,702
Social welfare (maximum)	35,850	106,778
Personal social services (maximum)	5,650	16,828
Housing	3,049	9,081
Education	12,712	70,193
Total (maximum)	57,261	202,880

Source: *Development Economics*

4.22 Even if current levels of service are maintained, unintended pregnancies and sexually transmitted infections (STIs) are expected to cost the UK's social welfare, housing benefits and education budgets between £27 billion and £57 billion between 2015 and 2020, and between £113 billion and £203 billion over the 2015–2025 period.

4.23 Having considered the potential implications of reduced sexual health and contraception services for four additional areas of future public expenditure, Table 4-7 provides a summary of the findings. The table presents the potential additional expenditure net of the **current access scenario** (that is presents the difference between the **reduced access scenario** and the **current access scenario** for each of the two time periods). For two of the themes (social welfare and personal social services) the differences are presented in two rows, reflecting the minimum and maximum differences respectively. For this reason the overall totals are also presented as a range.

Table 4-7: Summary of overall potential increases in wider public expenditure under the reduced access scenario compared to the current access scenario (£ millions, 2014 prices)

Expenditure theme	2015–2020 reduced access vs current access scenario	2015–2025 reduced access vs current access scenario
Social welfare (minimum)	1,411	4,997
Social welfare (maximum)	4,222	14,958
Personal social services (minimum)	201	601
Personal social services (maximum)	787	2,357
Housing	425	1,272
Education	1,769	9,793
Total (minimum)	3,806	16,663
Total (maximum)	7,203	28,380

Source: *Development Economics*

4.24 Overall, the potential net additional increase in wider public spending associated with additional unintended pregnancies over 2015–2020 is expected to lie within the range £3.806 billion and £7.203 billion.

4.25 Over the longer period 2015–2025, the potential net additional increase in wider public spending associated with additional unintended pregnancies is expected to lie within the range £16.663 billion and £28.380 billion.

Section 5 – Appendix: Sensitivity Tests

- 5.1 In terms of the future impact of public health expenditure cuts (as they potentially affect sexual health services) the central findings are presented in the previous chapters of the report.
- 5.2 The key finding was that the total cost of unintended pregnancies and sexually transmitted infections (STIs) could be as much as **£77.749 billion** over the period **2015–2020** and **£259.012 billion** over the longer period **2015–2025**. For convenience, the breakdown of these overall figures is repeated in Table 5-1.

Table 5-1: Summary of key findings (£ millions, 2014 prices)		
Expenditure theme	2015–2020	2015–2025
Health costs – current access scenario	11,831	24,263
Additional health costs with reduced access	1,455	3,489
Non-health costs – current access scenario (maximum)	57,261	202,880
Additional non-health costs with reduced access (maximum)	7,203	28,380
Overall costs under reduced access (maximum)	77,750	259,012

Source: *Development Economics*

- 5.3 The results of the scenarios are dependent upon assumptions that are made about the responses of local service providers to challenges presented by cuts, and also the potential responses of would-be service users to any changes in local service delivery.
- 5.4 In particular, the modelled results are sensitive to changes in:
- conception rates
 - abortion rates (for unintended pregnancies)
 - STI rates.
- 5.5 The purpose of sensitivity testing is to assess the extent to which the key findings of the report (in terms of the future financial costs of health and non-health related expenditures) could vary if the future rates of conception, abortion and STI diagnoses are different to those used in the future scenarios considered in this report.

- 5.6 Two alternative sensitivity test scenarios have been constructed, as detailed below.
- 5.7 **Sensitivity test 1:** this sensitivity scenario tests the potential range of results if future rates of unintended pregnancies and STIs do not increase by as much as is assumed in the main part of the report. In the case of unintended pregnancy, the sensitivity also tests an assumption whereby rates of abortion for unintended pregnancy do not decrease to the extent assumed in the main part of the report.
- 5.8 This first sensitivity scenario could come about if local service providers achieve significantly greater efficiency savings and other types of productivity increases that mean that levels of services provided to users do not decrease to the extent assumed in the **central case** presented in previous chapters of this report.
- 5.9 **Sensitivity test 2:** this sensitivity scenario tests the potential range of results if future rates of unintended pregnancies and STIs increase to a greater extent than is assumed in the main part of the report. In the case of unintended pregnancy, the sensitivity also tests an assumption whereby rates of abortion for unintended pregnancy decrease to a larger extent than assumed in the main part of the report.
- 5.10 This sensitivity scenario could come about if potential service users respond to a deterioration of service coverage and quality to a greater extent than is assumed in the **central case** that is modelled in this report.

Sensitivity test 1 results

5.11 The results of the sensitivity tests are summarised in Table 5-2. The results are presented in the same format as those for the **central case**, as set out in Table 5-1.

Table 5-2: Summary of results of sensitivity test 1 (£ millions, 2014 prices)		
Expenditure theme	2015–2020	2015–2025
Health costs – current access scenario	11,831	24,263
Additional health costs with reduced access (sensitivity test 1)	595	1,596
Non-health costs – current access scenario (maximum)	57,261	202,880
Additional non-health costs with reduced access under sensitivity test 1 (maximum)	2,053	7,386
Overall costs under sensitivity test 1 variant of the reduced access scenario (maximum)	71,740	236,125

Source: *Development Economics*

5.12 Under this test, the overall downstream cost of anticipated cuts in public health expenditure would decline (compared to the **central case**) by just over £6 billion (7.7 per cent) over five years, and by £22.9 billion (8.8 per cent) over 10 years.

5.13 However, under this more optimistic variant scenario, even with these reductions in future costs, substantial net additional costs to the public sector would be expected compared to the reference case (**current access scenario**). The ratio of additional costs compared to savings would be 26.5:1.00 over five years and 44.9:1.00 over 10 years.

5.14 It should be reiterated at this point that this variant scenario is, in the author's judgement, less likely to occur compared to the **central case**.

Sensitivity test 2 results

5.15 The results of the sensitivity tests are summarised in Table 5.3. The results are presented in the same format as those for the **central case**, as set out in Table 5-1.

Table 5-3: Summary of results of sensitivity test 2 (£ millions, 2014 prices)		
Expenditure theme	2015–2020	2015–2025
Health costs – current access scenario	11,831	24,263
Additional health costs with reduced access (sensitivity test 2)	1,539	3,950
Non-health costs – current access scenario (maximum)	57,261	202,880
Additional non-health costs with reduced access under sensitivity test 2 (maximum)	9,266	33,660
Overall costs under sensitivity test 2 variant of the reduced access scenario (maximum)	79,897	264,753

Source: *Development Economics*

5.16 Under this test, the overall downstream cost of anticipated cuts in public health expenditure would increase (compared to the **central case**) by about £8.1 billion (2.8 per cent) over five years, and by £28.6 billion (2.2 per cent) over 10 years.

5.17 Moreover, under this more pessimistic variant scenario, substantial net additional costs to the public sector would be expected compared to the reference case (**current access scenario**). The ratio of additional costs compared to savings would be about 108:1.00 over five years and 1881:00 over 10 years.

5.18 However, it is emphasised at this point that this more pessimistic variant scenario is, in the author’s judgement, less likely to occur compared to the **central case**.

Section 6 – Appendix: Methodology

- 6.1 The methodology used in this report incorporated three main steps, as follows:
- collection of demographic, health and cost-related data estimates and forecasts
 - development of a model capable of producing estimates of the current baseline (2014) public sector costs of unintended pregnancies (health and non-health related) and sexually transmitted infections
 - development of forward-looking scenarios capable of producing estimates of potential future costs of unintended pregnancies and sexually transmitted infections on an annual basis over the period 2015–2025.
- 6.2 More details on each step are provided in the following sections.

Data collection

- 6.3 In terms of data collection:
- Data was collected on rates of conception, abortions, miscarriages, stillbirths and live births over the 2000–2014 period. The primary source of this data was the Office for National Statistics (ONS), supplemented with data from the third National Survey of Sexual Attitudes and Lifestyles (Natsal 3).
 - Data was collected on trends in rates of sexually transmitted infection (STI) diagnoses since 2001. The primary source was Public Health England.
 - Data was collected on expected future demographic trends, including projections of population changes expected over the 2015–2025 period. The main data source was the 2012-based population projections produced by ONS.
 - A review was also undertaken of up-to-date estimates of health and other relevant aspects of public expenditure across the UK. A wide range of data sources was used: these are cited throughout the report.

Estimates of baseline costs of unintended pregnancies and sexually transmitted infections (STIs)

- 6.4 Baseline estimates of the costs of unintended pregnancies and STIs for the most recently completed year were developed as follows.

- Estimates were developed of the current number of unintended pregnancies leading to live births. For future years, estimates were also developed of the proportion of children so born surviving to their next birthday, based on data produced by the Office for National Statistics (ONS).
- Costs of healthcare associated with unintended pregnancy and alternative outcomes (abortion, miscarriage, stillbirth, live birth) were developed using NHS data.
- Costs of healthcare associated with providing postnatal health services to infants was also obtained from NHS sources.
- Estimates of the costs of treating different STIs were also obtained.

Estimates of future costs of unintended pregnancies and sexually transmitted infections (STIs)

6.5 Following a review of recent demographic and health trends, two forward-looking scenarios were developed to gauge the potential impact on health and wider public expenditure of cutbacks to sexual health and contraceptive services. These were:

- **Current access scenario.** In order to develop an appropriate reference case,³⁰ a current access scenario was constructed whereby it is assumed that the current level of service availability is maintained.
 - Under this scenario, it is assumed that 2013 rates of unintended pregnancy are maintained (but these are applied to a growing and changing population, so levels of unintended pregnancy will still change year-on-year in line with expected demographic trends).
 - With respect to STIs, it is broadly assumed that the trajectory of change identified by infections data published by Public Health England³¹ (applied to the UK as a whole) will continue.³²

³⁰ A reference case provides a baseline scenario against which the implications of alternative policies or other factors can be assessed or tested.

³¹ Public Health England. Health Protection Report *Sexually Transmitted Infections and Chlamydia Screening in England*, 2014. Published 23 June 2015, available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/437433/hpr2215_STI_NCSP_v6.pdf

³² An exception was made with respect to rates of gonorrhoea infection. The average 2011–2014 growth rate of infection is very high (over 18 per cent per annum), and under the current access scenario it is assumed that this will reduce to an average 9 per cent per annum over the periods under consideration.

- Estimates of costs associated with providing non-health related but publicly funded services to children born as a result of unintended pregnancy were also developed. These included costs associated with:
 - pre-primary and primary school education
 - additional social welfare and personalised social service expenditures
 - housing related public expenditure.
- Various data sources were used in obtaining estimates of the non-health related expenditures. These sources are cited throughout the report.
- **Reduced access scenario.** This scenario considers the potential longer term health and wider public expenditure implications of a 10 per cent cut in sexual health and contraceptive services expenditure across the UK. Specifically, it is assumed that under this scenario:
 - rates of unintended pregnancy for females aged 13–19 revert to the rates observed in 2003: that is, the progress made in reducing conception rates among teenagers over the past decade is lost
 - rates of unintended pregnancy among women aged 20–24 also revert to 2003 levels
 - rates of unintended pregnancy among women aged 25 and over also worsen, exacerbating a trend that has been observed among women in this age group in recent years
 - with respect to STI rates, it is assumed that there would be a 5 per cent increase in rates of diagnoses for types of infection where 2011–2014 rates have been increasing (chlamydia, anogenital herpes, syphilis) with the exception of gonorrhoea, where it is assumed that the 2011–2014 rate of growth will moderate to a level of annual growth that is equivalent to three-quarters of the average annual rate over the 2011–2014 period. For other infections where there have been recent reductions in the rates of diagnoses (non-specific genital infection, pelvic inflammatory disease, and anogenital warts) it is assumed that this would be replaced with a growth rate of 1 per cent per annum.

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