



Cancer Screening Needs Assessment 2022

The London Borough of Hammersmith and
Fulham

Authors

Helena Whitfield, Public Health Intelligence Analyst
Dr Nicola Lang, Director of Public Health
Dr Katie Purohit, Foundation Year 2 Doctor
Charlotte Bexson, Public Health Intelligence Analyst

Acknowledgements

Dr Amish Acharya; Research Fellow, Imperial College London
Nicola Ashton; Strategic Commissioner, London Borough of Hammersmith & Fulham
Claire Barry; Senior Delivery Manager, Royal Marsden Partners Cancer Alliance
Sonia Berjon-Aparicio; Lead for the Integrated Domiciliary Service Hammersmith & Fulham, Central London Community Healthcare Trust
Caroline Durack; Director of Operations, Hammersmith & Fulham GP Federation
Katarina Durisova; Research Lead, Hammersmith & Fulham GP Federation
Dr Christine Ekechi, Consultant Obstetrician & Gynaecologist, Imperial College Healthcare NHS Trust
Dr Laura Gibson; General Practitioner, Sands End Health Clinic
Dr Rachael Jones; HIV and Sexual Health Services, Chelsea & Westminster NHS Foundation Trust
Sarah Keeley; Nurse Practitioner, Chelsea & Westminster NHS Foundation Trust
Dr Aboyowa Popo; Public Health Registrar, NHS England & Improvement
Dr Baldeep Syan; Cancer Lead, Royal Marsden Partners & Brook Green Surgery

TABLE OF CONTENTS

Abbreviations	4
Executive Summary	5
1. Introduction	9
2. Policy Context	10
3. National Trends in Cancer Incidence and Screening	13
3.1 Bowel Cancer	13
3.2 Breast Cancer	16
3.3 Cervical Cancer	18
4. Local Trends in Cancer Screening	21
4.1 Bowel Cancer	22
4.2 Breast Cancer	26
4.3 Cervical Cancer	30
5. Local Barriers to Cancer Screening Uptake	36
5.1 Hammersmith & Fulham Stakeholder views	36
5.2 Barriers and Facilitators of Cancer Screening Uptake: A Literature Review	46
6. Identifying Recommendations	57
Recommendation 1	57
Recommendation 2	57
Recommendation 3	57
Appendices	59
Appendix 1	59
Appendix 2	60
Appendix 3	66
Appendix 4	67
Appendix 5	68
Appendix 6	69
Appendix 7	71
Appendix 8	72

Abbreviations

CCG	Clinical Commissioning Group
FIT	Faecal Immunochemical Test
gFOBt	Guaiac Faecal Occult Blood Test
GI	Gastrointestinal
GP	General Practitioner
HPV	Human Papilloma Virus
IMD	Index of Multiple Deprivation
LD	Learning Disabilities
NHS	National Health Service
NHSE	National Health Service England
NSC	National Screening Committee
OR	Odds Ratio
PCN	Primary Care Network
PHE	Public Health England
PHOF	Public Health Outcomes Framework
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
QOF	Quality and Outcomes Framework
RCT	Randomised Control Trial
RM	Royal Marsden
STP	Sustainability and Transformation Partnership
WSW	Women Who Have Sex With Women

Executive Summary

Cancer screening aims to reduce the mortality and incidence of cancer, through early detection and providing early intervention before the onset of symptoms. There are three national cancer screening programmes across England;

- Bowel cancer screening is offered to both men and women between the ages of 60 to 74.
- Breast cancer screening is offered to women between the ages of 50 and 70.
- Cervical cancer screening is offered to women aged 25 to 64 years.

Cancer survival rates are highest if the cancer is diagnosed early (stages one or two), emphasising the importance of early diagnosis in improving cancer outcomes. The National Health Service (NHS) aims to increase the proportion of cancers diagnosed at stages one and two to 75% in 2028.

Local Policy

- Hammersmith and Fulham Clinical Commissioning Group is a member of the Royal Marsden Partners West London Cancer Alliance which aims to transform cancer pathways and improve the quality of local cancer services.
- The Public Health Strategy for Hammersmith and Fulham 2015 – 2025 emphasised the importance of preventative services, including increasing cancer screening participation.

National Trends

- The one-year and five-year age-standardised survival for bowel, breast and cervical cancer decrease are highest if diagnosed in stages one or two, emphasising the importance of early diagnosis in improving cancer outcomes.
- Between 2009/10 and 2019/20, the proportion of eligible individuals being screened for bowel cancer increased from 35% to 64% in England. The proportion of people replying within six-months of invitation increased from 55% to 66% in the same period.
- Between 2009/10 and 2019/20, the proportion of eligible individuals being screened for breast cancer in England decreased marginally from 72% to 70%. The proportion of people replying within six-months of invitation also decreased from 74% to 70% in the same period.
- Between 2009/10 and 2019/20, the proportion of eligible individuals being screened for cervical cancer in England decreased from 75% to 72%.

Local Trends

This needs assessment found that, in Hammersmith & Fulham the proportion of eligible individual screened for all three cancers is lower than the national average.

Bowel Cancer

- Bowel cancer screening coverage **increased from 33% in 2009/10 to 50% in 2019/20 in Hammersmith & Fulham CCG.**
- Among GPs, The Medical Centre, Dr Kukar screened the lowest proportion of eligible patients (40%) for bowel cancer, and Park Medical Centre screened the highest (64%).
- **Bowel cancer screening rates were lower in poorer (more deprived) areas of Hammersmith & Fulham.**

Breast Cancer

- Breast cancer screening coverage **increased from 56% in 2009/10 to 59% in 2019/20 in Hammersmith & Fulham CCG.**
- Among GPs, The Medical Centre, Dr Kukar screened to lowest proportion of eligible patients for (13%) for breast cancer, and Richford Gate Medical centre screened the highest (66%).
- **Breast cancer screening levels in Hammersmith & Fulham had no association with deprivation.**

Cervical Cancer

- Cervical cancer coverage **decreased** between 2009/10 and 2019/20 in Hammersmith & Fulham CCG. Falling coverage rates in women aged 25 to 49 years primarily drove the decline in coverage during this period, decreasing from 60% to 52%.
- Cervical cancer screening, as of 2019/20, was lower in Hammersmith & Fulham (54%) compared to the England average of 72%.
- Among GPs, The Medical Centre, Dr Kukar screened to lowest proportion of eligible patients for (38%) for cervical cancer, and Park Medical centre screened the highest (67%).
- Among persons in Hammersmith & Fulham aged 50-64, **cervical cancer screening rates were lower in richer (less deprived) areas.**

Local Stakeholder Views

- Local stakeholders highlighted issues regarding the role of different organisations in commissioning, with no one organisation bearing responsibility for all three cancer screening programmes.
- Barriers to all three screening programmes included a perceived lack of appointments available outside of working hours, combined with a perceived low number of appointments available due to a lower than average number of primary care nurses in Hammersmith & Fulham.
- Hammersmith & Fulham has a high population turnover rate and patients may be lost to follow up.
- A lack of knowledge, language, cultural and religious barriers are also barriers to screening uptake.
- It is reported anecdotally that a large number of Hammersmith & Fulham residents receive **cancer screening abroad**.
- To improve bowel cancer screening uptake, Community Links directly contacts patients to explain the screening process, the benefits of screening and encourage them to take up screening. Community Links are also able to speak to the residents in their first language as the health facilitators come from a variety of backgrounds. In other areas of London this approach has improved the number of residents partaking in the bowel screening programme by up to 9%.
- To improve cervical cancer screening uptake, dedicated clinics have been set up at practices in convenient locations.
- To improve breast cancer screening uptake, a promotional video was circulated across social media platforms

Literature Review

The literature review examined barriers and facilitators of Cancer Screening Uptake.

- Strategies which were found to be effective in increasing cancer screening uptake included; GP endorsement via a letter sent to the individual's home address, a plain language summary reminder, social norm-based motivation, intention based volitional help sheet, SMS reminders, scheduling a fixed second appointment, and telephone promotion.
- People from more deprived areas, ethnic minorities, those with a Learning Disability, poor mental health and/or a chronic disability were found to be less likely to participate in cancer screening.
- Barriers to cancer screening participation included stigma and embarrassment, previous bad experience, a lack of knowledge and understanding, language barriers and a lack of access and appointment times.
- Positive motivators included discussion surrounding the screening programmes and easy appointment scheduling

Recommendations

Three key recommendations were formulated to improve cancer screening uptake in Hammersmith & Fulham:

- Support existing **workforce** delivering cancer screening, as well as expanding the workforce. This will be done by reviewing the lack of sample takers, supplementing the workforce, implementing self-sampling and ensuring that all patients are accommodated.
- Improve the **convenience** of cancer screening appointments. This will be done by providing catch-up rounds and providing the ability to book cancer screening appointments online.
- Increase **awareness** surrounding the importance of regular cancer screening appointments. Awareness will be raised at respective screening appointments, and the importance of cancer screening will be raised early on in education. Stigma will be tackled through community engagement and awareness of the importance of cancer screening will be raised using social media.

1. Introduction

Screening is defined as “the process of identifying healthy people who may have an increased chance of a disease or condition” by the UK National Screening Committee¹ (UK NSC). Screened individuals can then be provided with further information, testing and treatment to reduce their risk or complications from the disease or condition ([Appendix 1](#)).

Cancer screening enables the early detection of abnormalities which often improves the success of treatment. The UK has three national cancer screening programmes aiming to reduce mortality from cancer: the National Health Service (NHS) Bowel Cancer Screening Programme; the NHS Breast Screening Programme; and the NHS Cervical Screening Programme.

The Cancer Screening Needs Assessment 2021 aims to investigate participation in the three national screening programmes in the London Borough of Hammersmith and Fulham and provide a series of recommendations to improve uptake and coverage. The report is structured as a health needs assessment and addresses six objectives:

1. Summarise the policy context for cancer screening programmes.
2. Investigate national trends in cancer screening between 2010 and 2020.
3. Investigate local trends in cancer screening between 2010 and 2020.
4. Specify barriers to cancer screening uptake in Hammersmith & Fulham.
5. Identify recommendations to improve cancer screening uptake and coverage in Hammersmith & Fulham.
6. Develop actions with associated monitoring and evaluation mechanisms to improve cancer screening participation in Hammersmith & Fulham.

¹ UK National Screening Committee (2018) Screening in the UK: making effective recommendations.

2. Policy Context

The following section provides an overview of the policy regarding bowel, breast and cervical cancer screening in Hammersmith & Fulham.

Policy Summary

- The NHS Bowel Cancer Screening Programme invites males and females aged between 60 and 74 years to complete the screening test every two years.
- The NHS Breast Screening Programme invites women aged 50-70 to a screening appointment every three years.
- The NHS Cervical Screening Programme invites women aged 25-49 for screening every three years and women aged 50-64 to screening every five years.
- The NHS aims to increase the proportion of cancers diagnosed at stages one and two to 75% in 2028
- Hammersmith and Fulham Clinical Commissioning Group is a member of the Royal Marsden Partners West London Cancer Alliance which aims to transform cancer pathways and improve the quality of local cancer services.
- The Public Health Strategy for Hammersmith and Fulham 2015 – 2025 emphasised the importance of preventative services, including increasing cancer screening participation.

Nationally, the UK National Screening Committee recommends that:

- Bowel Cancer Screening is offered to everyone aged between 60 and 74 in the means of a home test kit every two years.
- Breast Cancer Screening is offered to women aged 50 to 70 to detect early signs of breast cancer every three years, and women over the age of 70 can self-refer.
- Cervical Cancer Screening is offered to a women and people with a cervix aged 25 to 64 years. It is offered every three years for those aged 25 to 49, an every 5 years from to ages of 50 to 64.

Nationally, the NHS Long Term Plan 2019 aims to increase the proportion of cancers diagnosed at stages one and two from 50% to 75% in 2028. Improving coverage and uptake in cancer screening programmes is essential to increasing the proportion of cancer diagnosed at earlier stages. Coverage and uptake are determined by several factors including:

- Acceptability
- Awareness
- Convenience
- Accessibility

- Reminders and endorsements.

More details about the national policy surrounding cancer screening can be found in [Appendix 2](#).

Across London, cancer screening coverage is generally lower than the national average. The London Cancer Screening Improvement Board was set up by NHS England (London) and the Transforming Cancer Services Team for London. The London Cancer Screening Improvement Board aims to “save more lives and reduce health inequalities through delivery of comprehensive and accessible cancer screening services, and for all Londoners to be informed about and able to access high quality screening services”.

Furthermore, the Transforming Cancer Services Team for London released a Good Practice Cancer Screening Guide in 2020 which was aimed at Primary Care Services to improve their coverage of cancer screening². Key messages from the guide included;

- Actively promoting cancer screening
- Ensuring that arrangements are in place for patients with special or additional needs
- Ensuring that patients with a previous cancer diagnosis are not omitted from being invited to cancer screening, especially since they may be at a higher risk of a new cancer
- Make screening and signposting information for each screening programme readily available

The Royal Marsden (RM) Partners West London Cancer Alliance leads on the delivery of recommendations in the NHS National Cancer Strategy and the transformation of cancer services in the North West London ICS (STP), including Hammersmith and Fulham Clinical Commissioning Group (CCG)³.

RM Partners, the West London Cancer Alliance hosted by the Royal Marsden aims to work in partnership with a range of stakeholders and organisations to achieve world-class cancer outcomes for the population and reduce variation in outcomes and access. Improving early diagnosis is a key priority of the alliance which includes improving screening uptake rates by contacting patients who do not return their bowel screening test and helping to increase the awareness of cancer screening programmes in marginalised populations⁴.

² Transforming Cancer Services Team for London (2020) Good Practice Guide for Breast, Cervical and Bowel Cancer Screening in Primary Care

³ RM Partners (2021) West London Cancer Alliance

⁴ RM Partners (2021) Annual Review 2018-19.

The Hammersmith and Fulham Joint Health and Wellbeing Strategy 2016-2021 identified cancer as the main cause of avoidable death in Hammersmith & Fulham and emphasised the importance of increasing uptake of breast and cervical cancer screening⁵.

Furthermore, the Public Health Strategy for Hammersmith and Fulham 2015 – 2025 identified seven priorities including “improving preventative services, by helping design and deliver services that have the capacity to have the biggest impact on prevention, early intervention and positive health promotion”. This included an aim to provide leadership via health and wellbeing boards to enable the NHS to achieve screening uptakes to levels sufficient to meet national recommendations⁶.

⁵ Hammersmith and Fulham Council (2015) Hammersmith and Fulham Joint Health and Wellbeing Strategy 2016 – 2021.

⁶ Hammersmith and Fulham Council. Improving our Public's Health – the Public Health Strategy for LBHF 2015-2025.

3. National Trends in Cancer Incidence and Screening

The following section will discuss the impact of early diagnosis on cancer outcomes, trends in cancer incidence and screening coverage for bowel, breast and cervical cancer in England.

PHE Cancer Services data (via fingertips) provided uptake and coverage statistics for England⁷. Data concerning cancer survival and registration was sourced from the Office for National Statistics (ONS)⁸.

National Trends Summary

- The one-year and five-year age-standardised survival for bowel, breast and cervical cancer decrease are highest if diagnosed in stages one or two, emphasising the importance of early diagnosis in improving cancer outcomes.
- Between 2009/10 and 2019/20, the proportion of eligible individuals being screened for bowel cancer increased from 35.0% to 63.8% in England. The proportion of people replying within six-months of invitation increased from 55.1% to 65.8% in the same period.
- Between 2009/10 and 2019/20, the proportion of eligible individuals being screened for breast cancer in England decreased marginally from 71.8% to 70.1%. The proportion of people replying within six-months of invitation also decreased from 74.4% to 70.1% in the same period.
- Between 2009/10 and 2019/20, the proportion of eligible individuals being screened for cervical cancer in England decreased from 75.4% to 72.2%.

A summary of indicators and associated thresholds is provided in [Appendix 3](#).

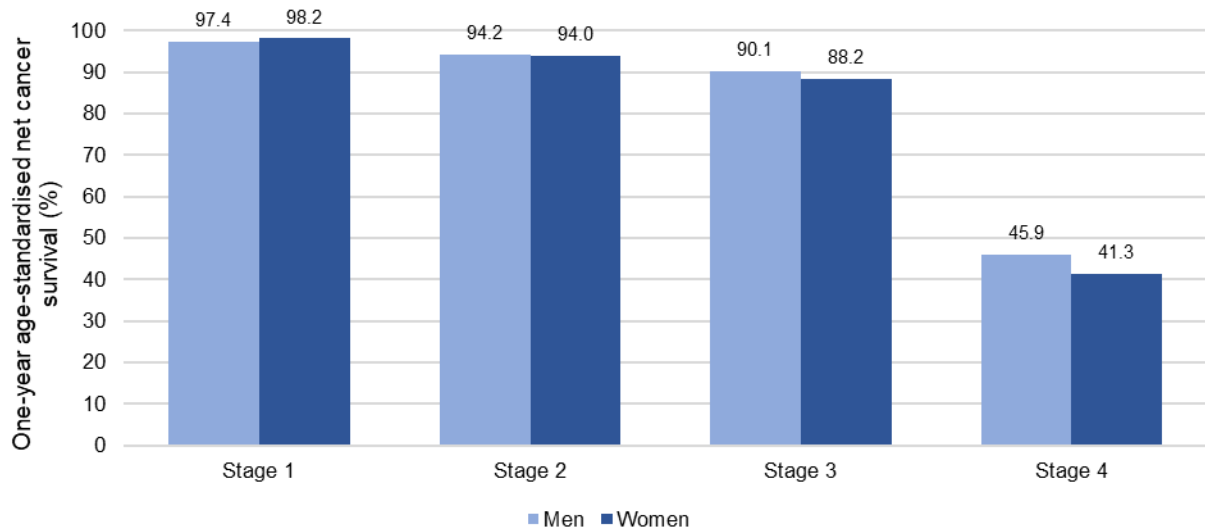
3.1 Bowel Cancer

Men and women have similar survival rates for bowel cancer across all stages of diagnosis. The highest one-year survival rate is highest for individuals diagnosed during stage one (97.8% on average) and lowest for stage four diagnoses (43.9% on average) (Figure 1). Diagnosing bowel cancer at stage one results in a five-year age-standardised net survival of 91.7% for both men and women, however this decreases to 10.3% for bowel cancer diagnosed at stage four⁸.

Figure 1: One-year age-standardised net survival for bowel cancer for adults in England (15-99 years)

⁷ Public Health England (2021) Cancer Services Data (via PHE Fingertips)

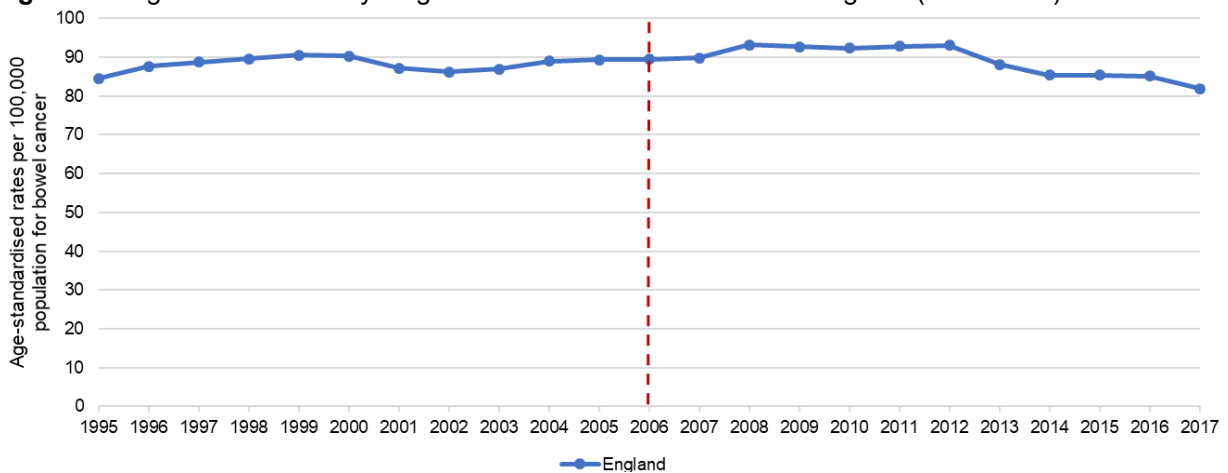
⁸ Office for National Statistics (2019) Cancer Survival in England: adults diagnosed between 2013 and 2017 and followed up to 2018.



Data source: Office for National Statistics (2019) Cancer Survival in England: adults diagnosed between 2013 and 2017 and followed up to 2018.

Since the introduction of the Bowel Cancer Screening Programme, the age-standardised rate per 100,000 of newly diagnosed cases of bowel cancer increased from 89.5 in 2006 to 93.1 in 2012 (Figure 2). The rise in diagnoses following the programme's introduction is likely to be due to more individuals being diagnosed at earlier stages due to screening.

Figure 2: Registrations of newly diagnosed cases of bowel cancer in England (2001-2017).



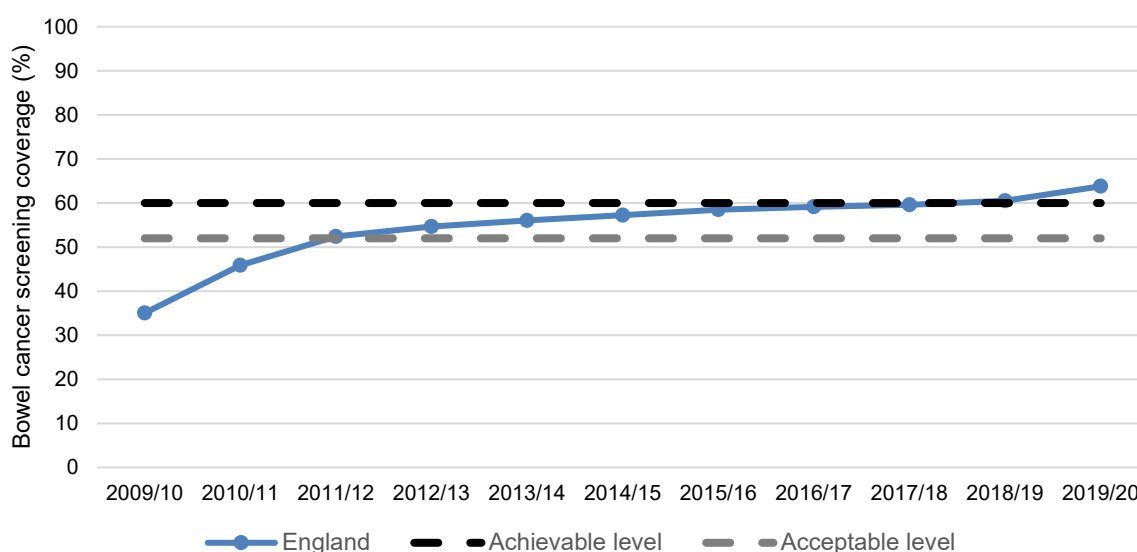
Data source: Office for National Statistics (2019) Cancer Registration Statistics, 1995-2017.

The rate of diagnoses also fluctuates across regions of England. In London the age-sex standardised bowel cancer incidence rate was 60.7 per 100,000 people, while in England the rate was 68.4 per 100,000 people in 2017⁹.

⁹ Office for National Statistics (2019) Cancer registration statistics, 2017

Bowel cancer screening coverage is the proportion of eligible men and women aged 60 to 74 who were screened in the previous 30 months (2.5 years)¹⁰. Coverage increased from 35.0% in 2009/10 to 63.8% in 2019/20 in England (Figure 3). The annual increase in Bowel Cancer Screening Programme coverage increased rapidly between 2009/10 and 2013/14, before plateauing until 2018/19. Increase in coverage then accelerated between 2018/19 and 2019/20. The acceptable proportion of eligible individuals who have been screened for bowel cancer in the past 30 months is 52%, however the achievable level is 60%¹¹. In 2011/12, coverage in England reached the acceptable level, and in 2018/19 coverage surpassed the achievable level.

Figure 3: Bowel cancer screening coverage in England (2009/10 -2019/20)



Data source: Public Health England 2021, Cancer Services

Bowel cancer screening uptake is the proportion of men and women aged 60 to 74 invited to participate in bowel cancer screening and responded within six months of invitation. Bowel Cancer Screening Programme uptake has increased in recent years to 65.8% in England in 2019 – an increase of 18.3% compared to 2009/10¹².

Socio-economic factors impact both Bowel Cancer Screening Programme uptake and coverage in England. Eligible individuals living in more deprived areas as well as areas with a higher proportion of Black, Asian and Minority Ethnic (BAME) communities have lower rates of programme uptake¹³. In addition, males are less likely to participate in

¹⁰ Public Health England (2019) Bowel cancer screening programme standards: valid for data collected from 1 April 2018.

¹¹ Public Health England (2021) Bowel screening programme screening standards: valid for data collected from 1 April 2018.

¹² Public Health England (2021) Cancer Services Data (via PHE Fingertips)

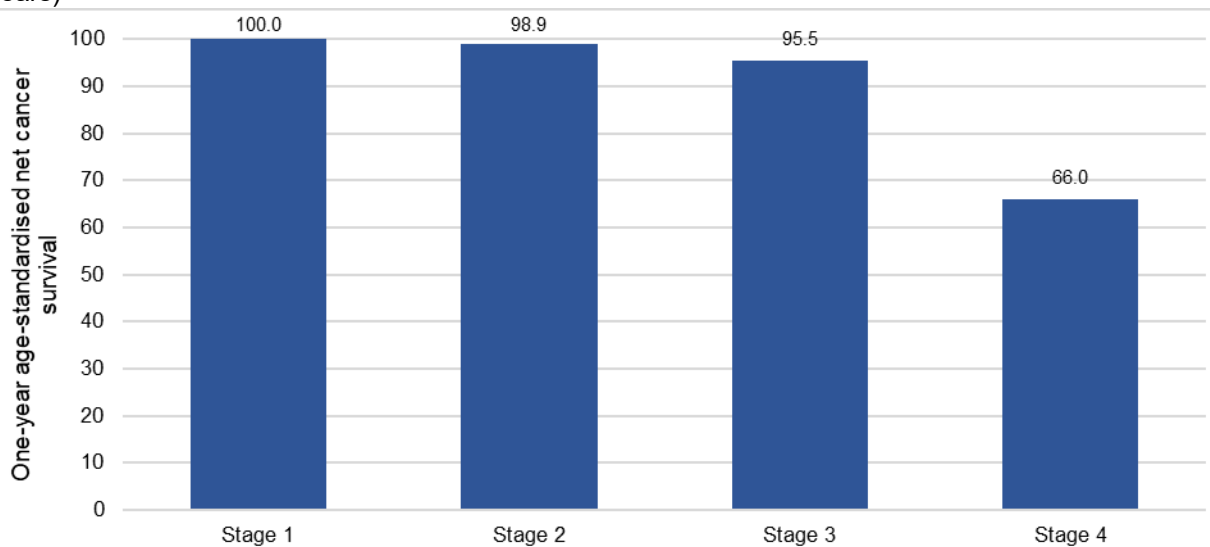
¹³ Von Wagner et al. (2011) Inequalities in participation in an organised national colorectal cancer screening programme: results from the first 2.6 million invitations in England. *International Journal of Epidemiology*. 40(3):712-718.

screening than women despite having a higher incidence of bowel cancer. Barriers to uptake are further discussed in [Section 5](#).

3.2 Breast Cancer

Individuals diagnosed with breast cancer at stage one have a 97.9% five-year age-standardised survival rate. However, diagnosis at stage four translates to a 26.2% five-year age-standardised survival rate. One-year age-standardised survival rates follow a similar pattern – survival is above 95% for stage one, two and three diagnoses. However, in stage four the one-year survival rate drops to 66% (Figure 4).

Figure 4: One-year age-standardised net survival for breast cancer for adults in England (15-99 years)

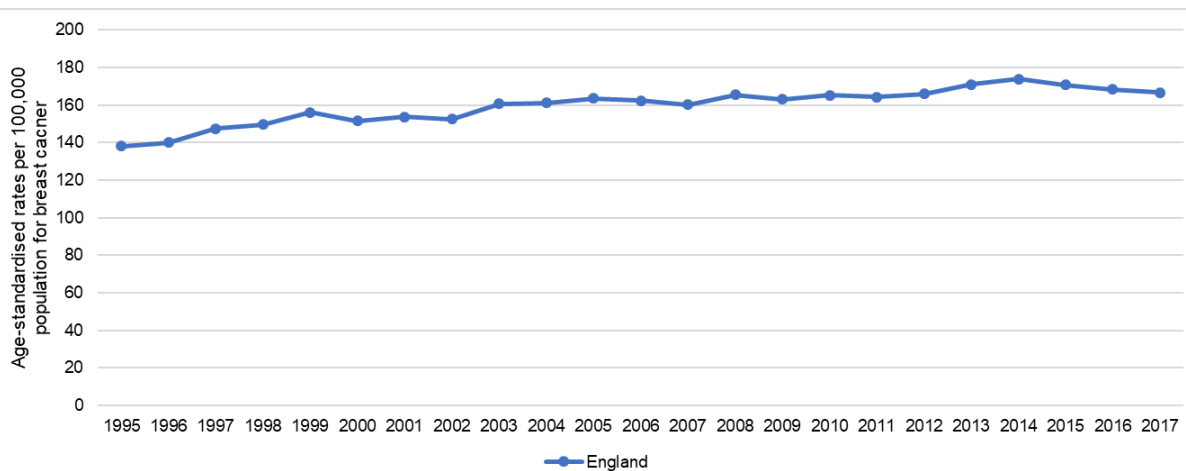


Data source: Office for National Statistics (2019) Cancer Survival in England: adults diagnosed between 2013 and 2017 and followed up to 2018.

The age-standardised rates of newly diagnosed cases of breast cancer per 100,000 have steadily increased between 1995 and 2017 from 138.1 to 166.7 for females (Figure 5). The rate for males has remained similar throughout the period around 1.4 per 100,000. In 2017, the rate for breast cancer diagnoses was similar in London and England (164.8 and 166.7 per 100,000 respectively)¹⁴.

¹⁴ Office for National Statistics (2019) Registrations of newly diagnosed cases of cancer, 1995-2017

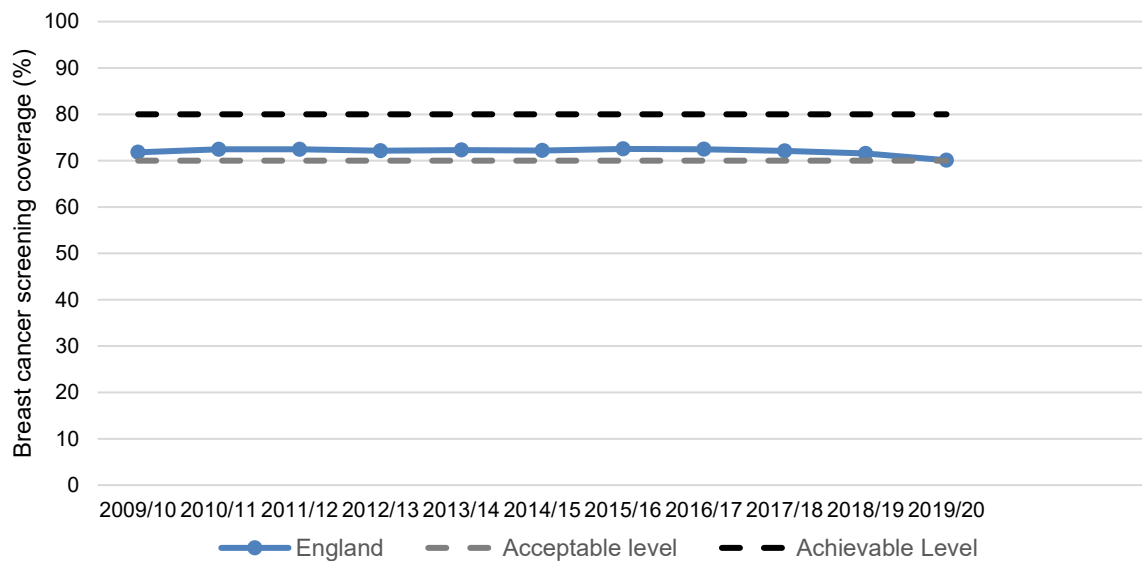
Figure 5: Age-standardised rates per 100,000 population for breast cancer in England (1995-2017)



Data source: Office for National Statistics (2019) Registrations of newly diagnosed cases of cancer, 1995-2017

The acceptable proportion of eligible females who have been screened for breast cancer in the previous 36 months (coverage) is 70%, however the achievable level is 80%¹⁵. Between 2009/10 and 2019/20, coverage in England remained above the acceptable level, however substantially below the achievable level, with an annual average of 72% during the time period (Figure 6). Coverage peaked between 2015 and 2017 at 72.5% before decreasing to 70.1% in 2019/20.

Figure 6: Breast screening programme coverage for women in England (2009/10 – 2019/20).



Data source: Public Health England 2021, Cancer Services

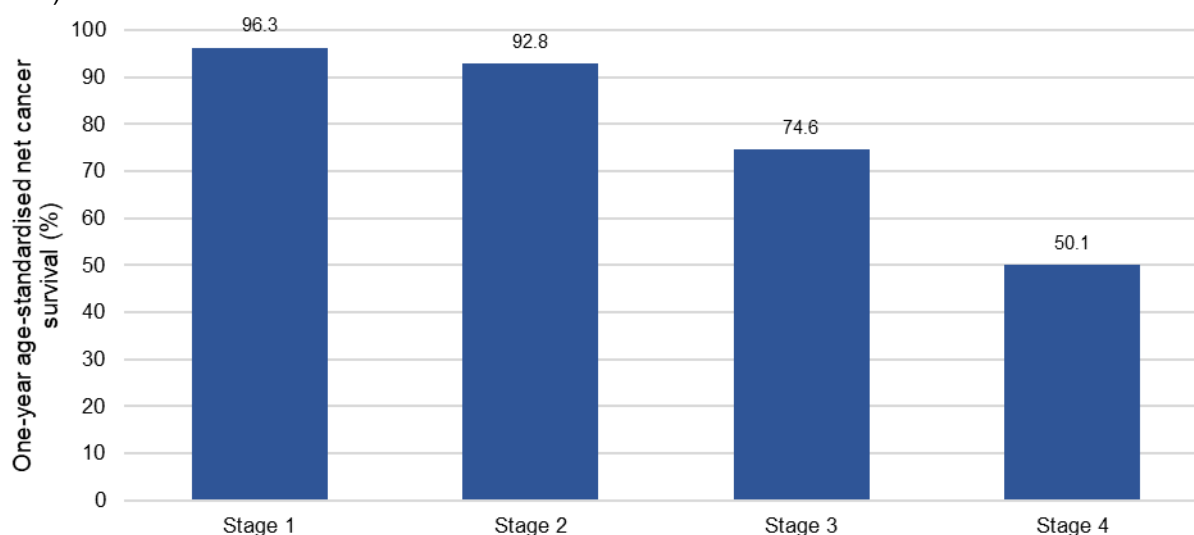
¹⁵ Public Health England (2020) Breast screening programme screening standards: valid for data collected from 1 April 2017.

In addition to coverage, the proportion of eligible women who attend breast screening appointments within six months of receiving an invitation (uptake) is recorded¹⁶. Between 2017 and 2020, breast screening uptake in England remained marginally above the 70% acceptable threshold (73% annual average). Uptake has been found to be significantly lower in women in the most deprived groups compared to women in the least deprived groups¹⁷. Women living in the most deprived areas also have higher mortality rates for breast cancer¹⁸ (see [Section 5](#) for further discussion).

3.3 Cervical Cancer

Cervical cancer diagnoses at stages one and two result in a one-year age standardised cancer survival rate of 96.3% and 92.8% respectively. The one-year survival rate decreases in later stages of diagnosis to 74.6% at stage three and to 50.1% at stage four (Figure 7). Five-year survival rates follow a similar pattern.

Figure 7: One-year age-standardised net survival for cervical cancer for adults in England (15-99 years)



Data source: Office for National Statistics (2019) Cancer Survival in England: adults diagnosed between 2013 and 2017 and followed up to 2018.

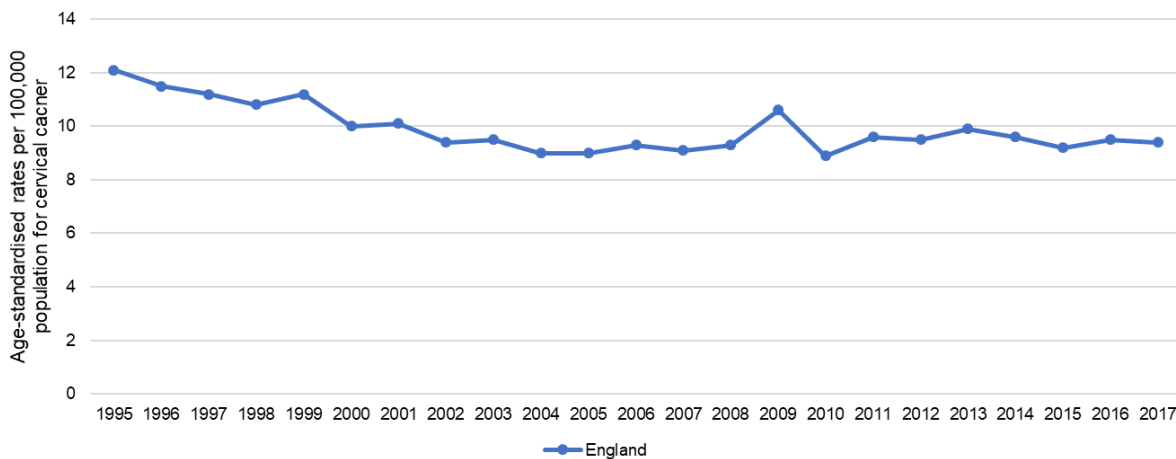
The age-standardised rates per 100,000 population of newly diagnosed cases of cervical cancer have decreased from 12.1 in 1995 to 9.4 in 2017 (Figure 8). Since 2002, the rate has remained relatively stable around 9.4 per 100,000. Compared to England, London has a relatively low rate – 7.4 per 100,000 of newly diagnosed cases of cervical cancer in 2017 (2% lower than England).

¹⁶ Public Health England (2020) Breast screening programme screening standards: valid for data collected from 1 April 2017.

¹⁷ Douglas, E., et al, 2016. Socioeconomic inequalities in breast and cervical screening coverage in England: are we closing the gap? *Journal of Medical Screening*, 23(2), pp. 98-103

¹⁸ Cancer Research UK (2020) Breast cancer statistics.

Figure 8: Age-standardised rates per 100,000 population for cervical cancer in England (1995-2017)

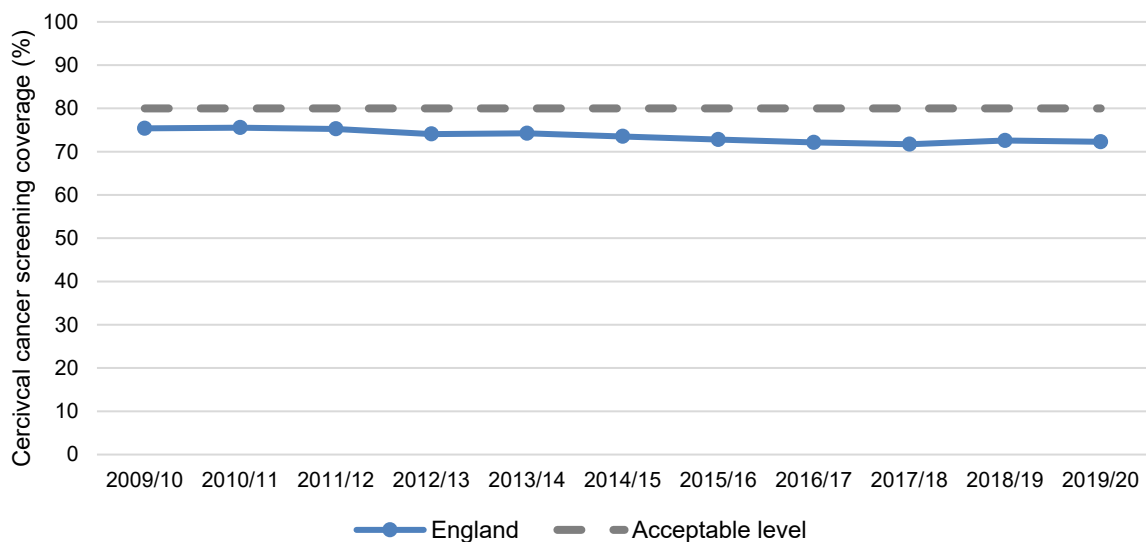


Data source: Office for National Statistics (2019) Registrations of newly diagnosed cases of cancer, 1995-2017

Combined cervical screening coverage – the proportion of eligible women who were screened for cervical cancer in the previous 42 months (if aged 24-49) or 66 months (if aged 50-64) – decreased from 75.4% in 2009/10 to 72.3% in 2019/20 (Figure 9). The decrease coincides with marginal decreases in the age-standardised rates of cervical cancer diagnoses per 100,000 in the same time period indicating decreasing screening coverage may contribute to lower diagnosis rates (Figure 8).

The decrease in cervical cancer screening coverage is primarily due to decreased coverage in women aged 25-49 years during the time period, whereas coverage for women aged 50-64 remained relatively stable between 2009/10 and 2019/20.

Figure 9: Combined cervical screening programme coverage for women aged 25-49 and 50-64 in England (2009/10 – 2019/20).



Data source: Public Health England 2021, Cancer Services

In addition to age, cervical screening varies by socio-economic factors similarly to bowel cancer and breast cancer. Women living in the 20% most deprived

neighbourhoods in England are more likely to have high-risk Human Papillomavirus (HPV) and have a higher risk of dying from cervical cancer when compared to the women living in the 20% least deprived neighbourhoods in England¹⁹. However, women in the most deprived group are the least likely to attend screening appointments²⁰ (see [Section 5](#) for further discussion).

¹⁹ Cancer Research UK (2020) Cervical cancer statistics.

²⁰ Tanton, C., et al, 2015. High-risk human papillomavirus (HPV) infection and cervical cancer prevention in Britain: Evidence of differential uptake of interventions from a probability survey. *Cancer Epidemiology, Biomarkers, and Prevention*, Volume 24, pp. 842-853

4. Local Trends in Cancer Screening

Section 4 presents the analysis of long-term local trends in cancer screening coverage and uptake in Hammersmith and Fulham Clinical Commissioning Group (CCG).

Local Trends Summary

Bowel Cancer

- Bowel cancer screening coverage **increased from 33% in 2009/10 to 50% in 2019/20 in Hammersmith & Fulham CCG.**
- Bowel cancer screening, as of 2019/20, was lower in Hammersmith & Fulham compared to the England average of 63.8%.
- Among GPs, The Medical Centre, Dr Kukar screened the lowest proportion of eligible patients (40%) for bowel cancer, and Park Medical Centre screened the highest (64%).
- **Bowel cancer screening rates were lower in poorer (more deprived) areas.**

Breast Cancer

- Breast cancer screening coverage and uptake both peaked in 2018/19 at 62% in Hammersmith & Fulham CCG. However, both metrics fell in 2019/20 in Hammersmith & Fulham CCG and in England, specifically between January and March 2020.
- Breast cancer screening, as of 2019/20, was lower in Hammersmith & Fulham (59%) compared to the England average of 70%.
- Among GPs, The Medical Centre, Dr Kukar screened to lowest proportion of eligible patients for (13%) for breast cancer, and Richford Gate Medical centre screened the highest (66%).
- **Breast cancer screening levels in Hammersmith & Fulham had no association with deprivation.**

Cervical Cancer

- Cervical cancer coverage decreased between 2009/10 and 2019/20 in Hammersmith & Fulham CCG. Falling coverage rates in women aged 25 to 49 years primarily drove the decline in coverage during this period, decreasing from 60% to 52%.
- Cervical cancer screening, as of 2019/20, was lower in Hammersmith & Fulham (54%) compared to the England average of 72%.
- Among GPs, The Medical Centre, Dr Kukar screened to lowest proportion of eligible patients for (38%) for cervical cancer, and Park Medical centre screened the highest (67%).
- Among persons in Hammersmith & Fulham aged 50-64, **cervical cancer screening rates were lower in richer (less deprived) areas.**

Trends within Hammersmith & Fulham CCG at the General Practice (GP) and Primary Care Network (PCN) level were also analysed. PHE Cancer Services data (via fingertips)²¹ served as the primary source of data, with additional metrics from PHE Screening²².

4.1 Bowel Cancer

Between 2009/10 and 2019/20, the proportion of eligible persons screened for bowel cancer in the past 2.5 years (coverage) in Hammersmith & Fulham CCG was consistently lower than the England average (Figure 10). In Hammersmith & Fulham CCG the proportion of eligible persons who were screened for bowel cancer increased from 33.2% in 2009/10 to 49.5% in 2019/20. Meanwhile the national average increased from 35.0% in 2009/10 to 63.8% in 2019/20. Therefore, over this ten-year period, the marginal difference in coverage between Hammersmith & Fulham CCG and England increased from 1.8% in 2009/10 to 14.3% in 2019/20.

It is plausible the widening attainment gap in the proportion of persons who have been screened for bowel cancer between Hammersmith & Fulham CCG and England may have contributed to the lower rate of bowel cancers diagnosed at stages one and two in Hammersmith & Fulham CCG (36%) compared to England (45%) in 2018²³.

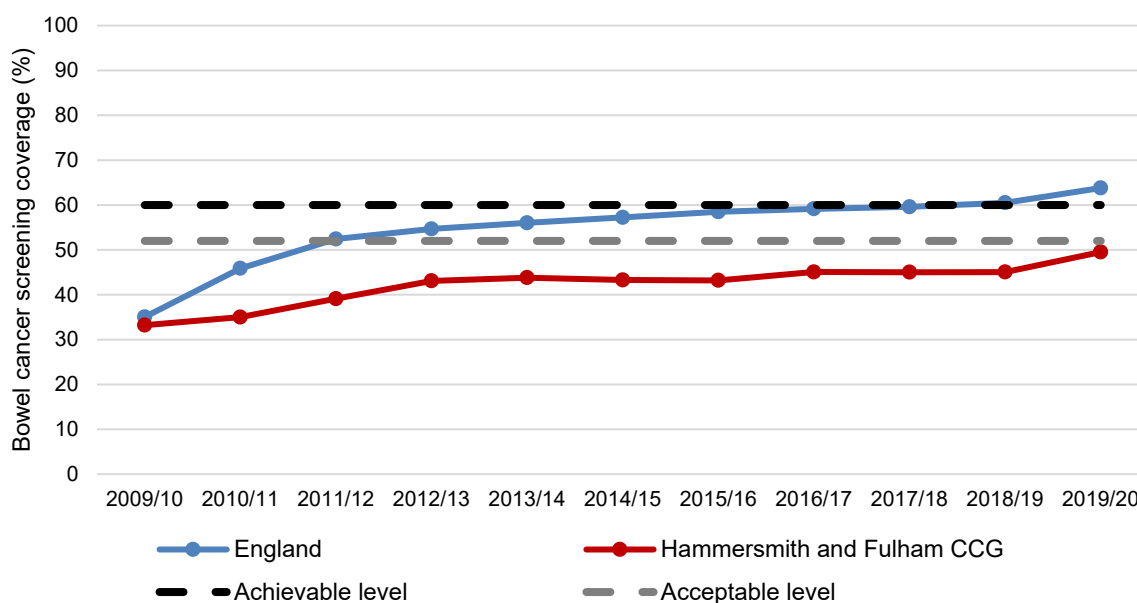
Across the 18 London CCGs, Hammersmith & Fulham CCG had the 4th lowest proportion of persons screened for bowel cancer in 2019/20. Hammersmith & Fulham was also one of the 6 London CCGs which did not reach the acceptable level (52%) of cancer screening coverage.

²¹ Public Health England (2021) Cancer Services Data (via PHE Fingertips)

²² Public Health England (2021) PHE Screening Publications.

²³ National Disease Registration Service (2021) Staging Data in England.

Figure 10: Annual bowel cancer screening programme coverage for individuals aged 60-74 in Hammersmith and Fulham CCG and in England (2009/10 – 2019/20).



Data source: Public Health England 2021, Cancer Services

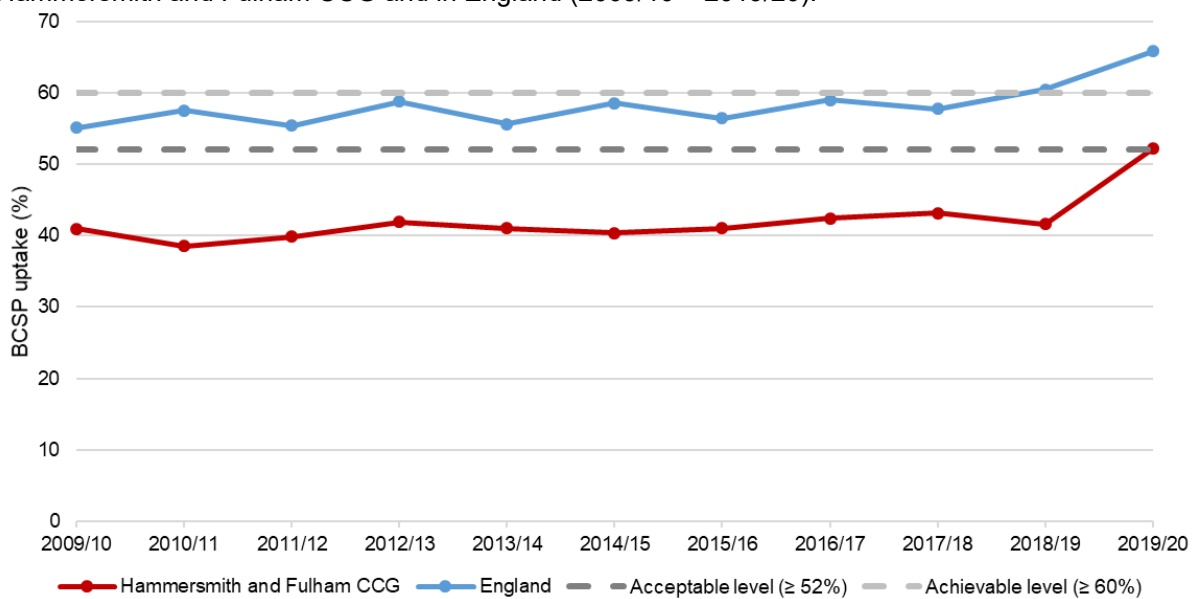
Efficiency of the screening programme can be measured by the proportion of persons who have been invited to be screened for bowel cancer and respond within six months of the invitation. Over the past 10 years, the proportion of persons registered with Hammersmith & Fulham CCG who responded to a screening invitation within six months has fluctuated (Figure 11). The acceptable level for bowel cancer uptake within six months of receiving an invitation is 52% of persons invited, whereas the achievable threshold is 60%²⁴. In England, the average proportion of persons who respond to the Bowel Cancer screening invitation within six months was below the achievable level until 2018/19 before increasing to 65.8% in 2019/20.

Among patients in Hammersmith & Fulham CCG, the proportion of persons invited for bowel cancer screening who responded within six months remained consistently below the acceptable level until 2019/20. Between 2009/10 and 2018/19, the annual average proportion of persons who responded to their bowel cancer screening invitation within six months was 41.1%. Furthermore in 2018/19, Hammersmith & Fulham CCG was 18.8% below the England average. However, similarly to England, uptake rapidly improved in 2019/20 increasing to 52.2%, which is above the acceptable level. However, this improvement may not be sustained as analysis of quarterly data reveals in the final quarter of 2019/20 (January – March 2020) an accelerated decline in uptake across England, London and Hammersmith & Fulham CCG ([Appendix 5](#)).

²⁴ Public Health England (2019) Bowel cancer screening programme standards: valid for data collected from 1 April 2018.

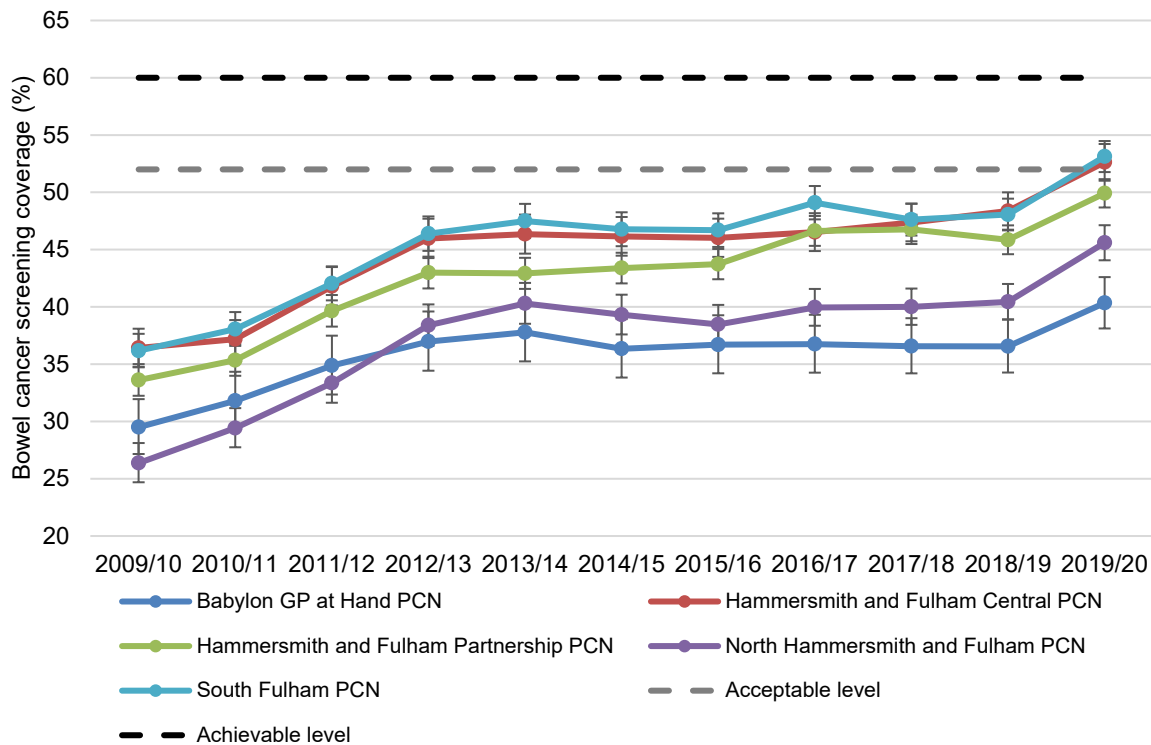
Within Hammersmith & Fulham CCG, the proportion of eligible individuals receiving bowel cancer screening every 2.5 years increased between 2009/10 and 2019/20 at a similar rate to England (Figure 11). GP at Hand PCN and North Hammersmith and Fulham PCN had the lowest coverage throughout the ten-year period (Figure 12). Increase in coverage has also decreased the least in Babylon GP At Hand between 2009/10 and 2019/20 (10.8% increase), whereas coverage has improved the most in North Hammersmith and Fulham PCN (19.2% increase). Despite increases in coverage across all PCNs, South Fulham and Hammersmith and Fulham Central PCN consistently had the highest coverage. Appendix 4 breaks down the GPs within each Primary Care Network in Hammersmith and Fulham Clinical Commissioning Group, 2021.

Figure 11: Annual bowel cancer screening programme uptake for individuals aged 60-74 in Hammersmith and Fulham CCG and in England (2009/10 – 2019/20).



Data source: Public Health England 2021, Cancer Services

Figure 12: Annual bowel cancer screening programme coverage for individuals aged 60-74 in Hammersmith and Fulham CCG, by PCN (2009-10 – 2019-20).

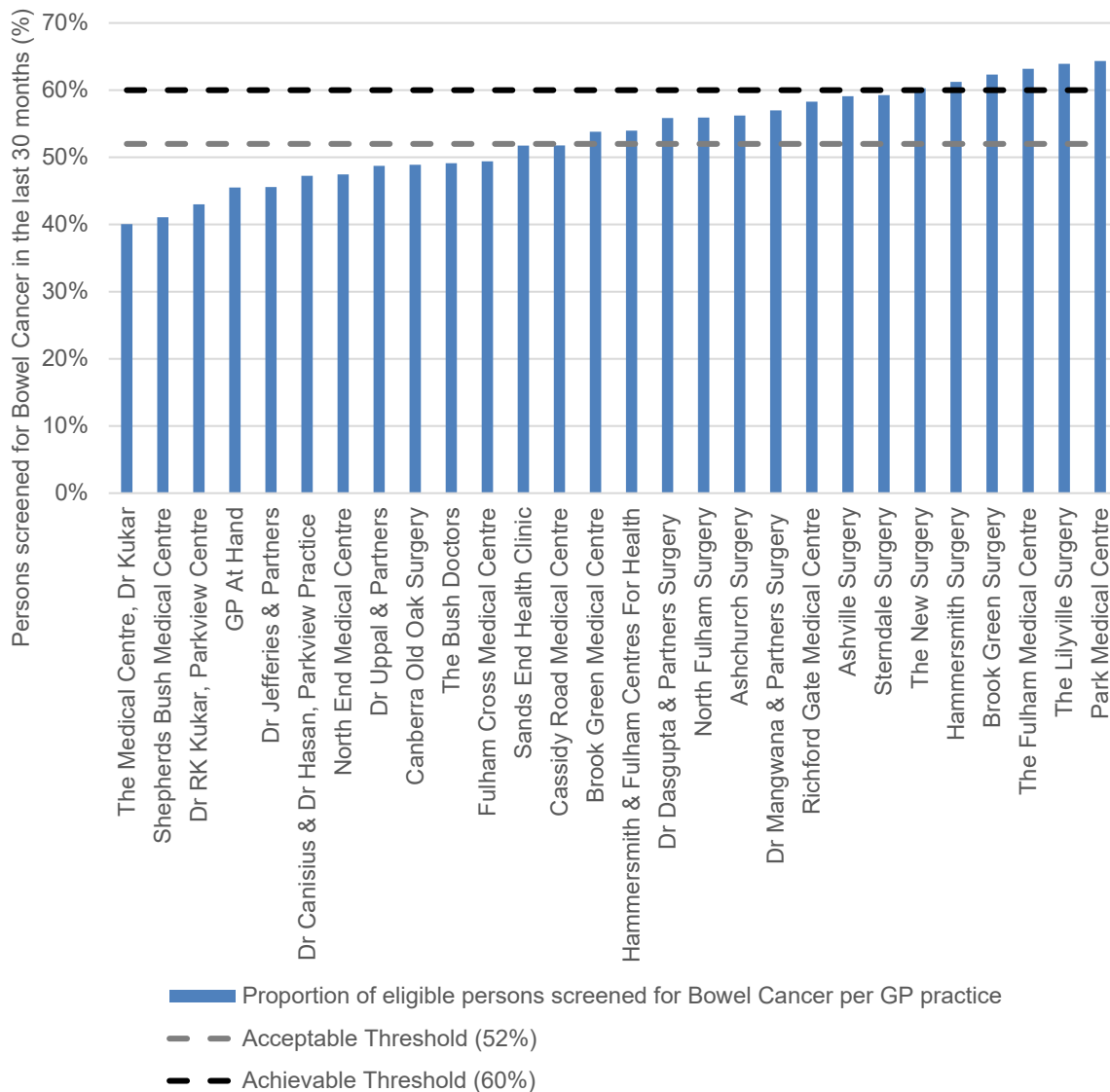


Data source: Public Health England 2021, Cancer Services

The proportion of eligible people who received bowel cancer screening varied between GP practice. The lowest proportion of people screened was 40.0% of eligible patients at The Medical Centre, Dr Kukar. The highest proportion of people screened was 64.3% at Park Medical Centre (Figure 13)²⁵. From the 28 GP practices in Hammersmith & Fulham CCG; 13 did not meet the acceptable threshold (52%) for bowel cancer screening, 9 met the acceptable threshold but not the achievable threshold (60%), and 6 surpassed the achievable threshold.

²⁵ NHS Cancer Screening Programme (2021) Bowel Cancer Screening Programme.

Figure 13: Bowel cancer screening programme coverage for individuals aged 60-74 in Hammersmith and Fulham CCG in the last 30 months, by GP (2021-2022).



Data source: NHS Cancer Screening Programme (2021) Bowel Cancer Screening Programme.

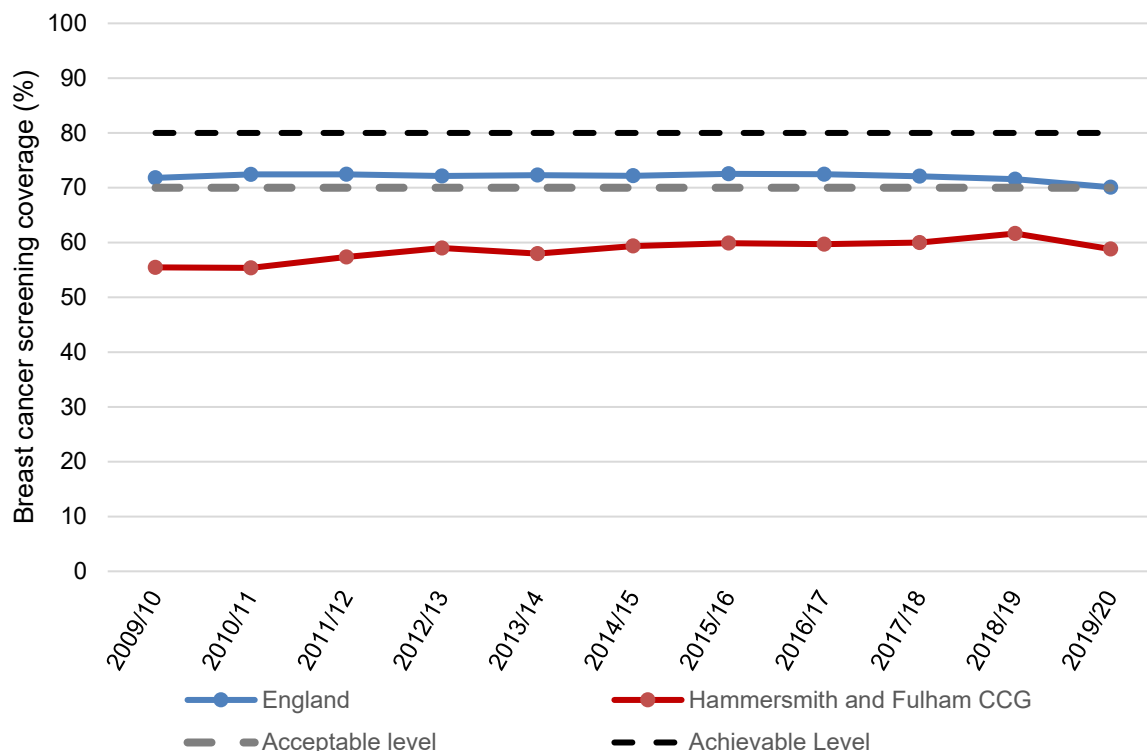
Across Hammersmith & Fulham CCG GPs, there is an inverse relationship between deprivation and screening coverage for bowel cancer; as deprivation increases screening coverage decreases. Calculation of the Pearson correlation coefficient revealed a moderate correlation between deprivation and bowel cancer screening uptake in Hammersmith & Fulham at the GP practice level ($r = -0.3$) ([Appendix 6](#)).

4.2 Breast Cancer

The proportion of individuals who are eligible for breast cancer screening that have been screened in the last 36 months (coverage) in Hammersmith & Fulham CCG remained below the level for England and below the acceptable level ($\geq 70\%$) between 2009/10 and 2019/20 (Figure 14). However, while in England breast cancer coverage remained stable above the acceptable threshold throughout this time period, in Hammersmith & Fulham CCG, breast screening coverage increased by 6.1% between

2009/10 and 2018/19. In 2019, Hammersmith & Fulham CCG ranked 24th in breast screening coverage out of all London CCGs²⁶.

Figure 14: Annual breast screening programme coverage for individuals aged 50-70 in Hammersmith and Fulham CCG and in England (2009/10 – 2019/20).



Data source: Public Health England 2021, Cancer Services

Across England and Hammersmith & Fulham CCG, a higher proportion of breast cancer cases are diagnosed in stages one and two, in comparison to bowel cancer cases. However, in 2018 Hammersmith & Fulham CCG also had a lower proportion of breast cancer cases diagnosed at stage one and two compared to the England average (81% compared to 96% in England)²⁷. The difference in screening coverage between Hammersmith & Fulham CCG and England in part explains the lower proportion of early diagnoses of breast cancer.

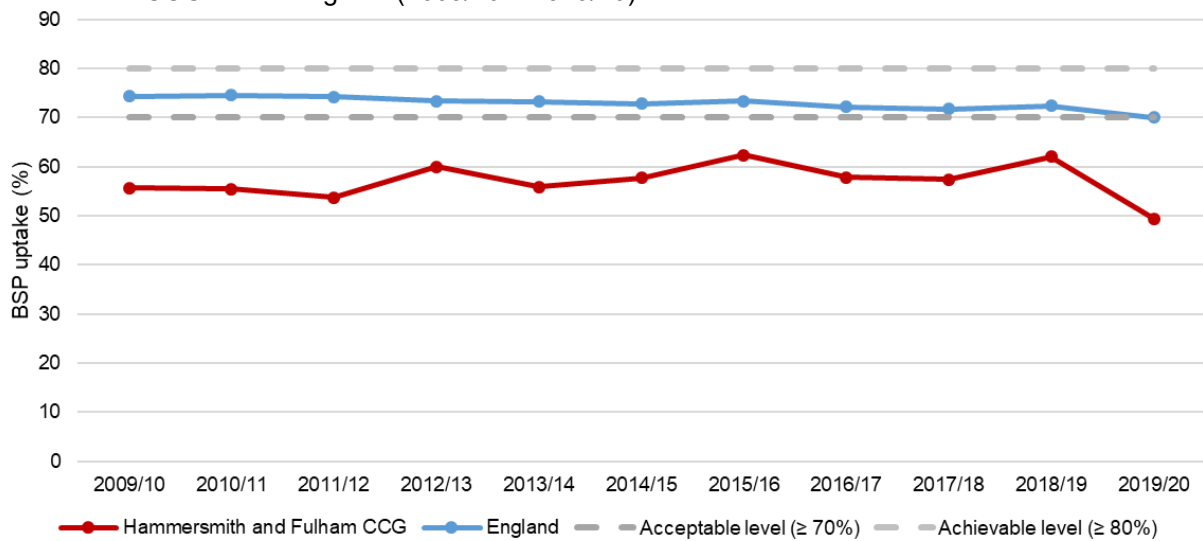
The proportion of eligible women invited to attend breast screening who responded within six months of the invitation (uptake), remained below the acceptable threshold of 70% in England between 2009/10 and 2019/20 (Figure 15). In Hammersmith & Fulham CCG, the proportion of women who responded within six months to their breast cancer screening invitation increased from 55.7% in 2009/10 to 62% in 2018/19, decreasing the gap in uptake between the CCG and England. However, in 2019/20 uptake rates for both Hammersmith & Fulham CCG and England declined steeply, mirroring the trend in coverage (Figure 14). For England and Hammersmith &

²⁶ Public Health England (2021) Cancer Services Data (via PHE Fingertips)

²⁷ National Disease Registration Service (2021) Staging Data in England.

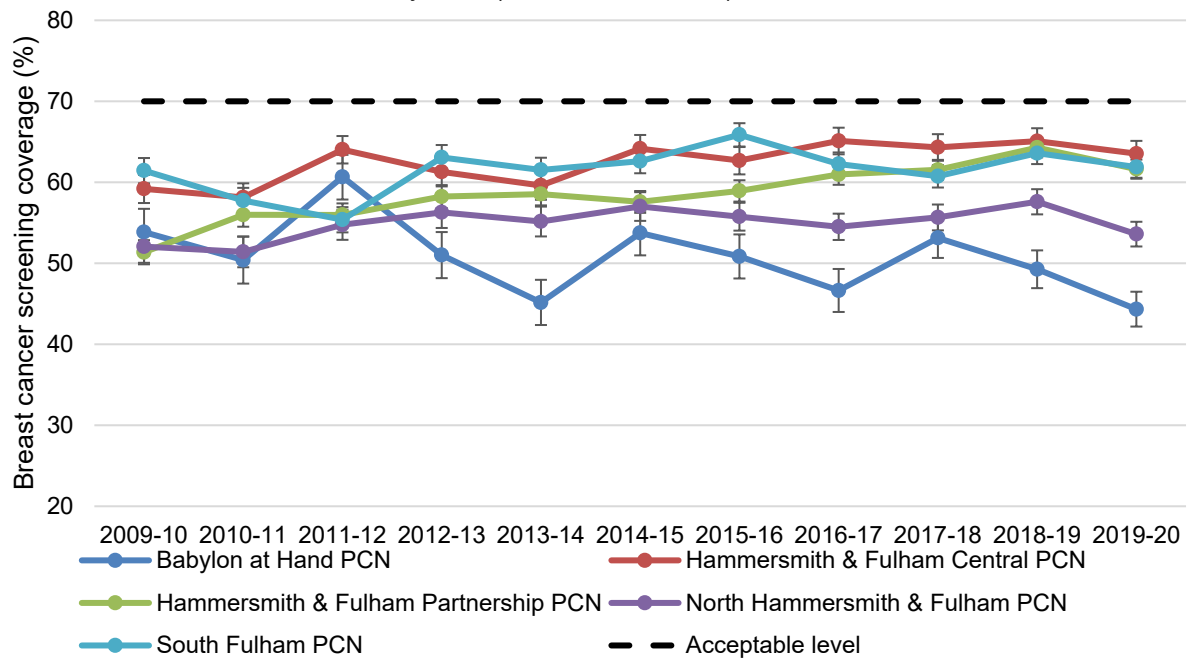
Fulham CCG, uptake was lowest in the last quarter of 2019/20 (January and March 2020) ([Appendix 7](#)).

Figure 15: Annual breast screening programme uptake for individuals aged 50-64 in Hammersmith and Fulham CCG and in England (2009/10 – 2019/20).



All five PCNs within Hammersmith & Fulham CCG remained below the acceptable threshold for the proportion of eligible women screened for breast cancer in the last 36 months between 2009/10 and 2019/20 (Figure 16). Similarly, to the Bowel Cancer Screening Programme coverage, Babylon GP at Hand PCN had the lowest coverage throughout the ten-year period, with coverage declining from 45% in 2009/10 to 44% in 2019/20. Coverage improved in all other PCNs over this time period, ranging from a 0.4% increase in South Fulham PCN to a 10.2% increase in Hammersmith & Fulham Central PCN between 2009/10 and 2019/20.

Figure 16: Annual breast cancer screening programme coverage for individuals aged 50-64 in Hammersmith and Fulham CCG, by PCN (2009/10 – 2019/20).

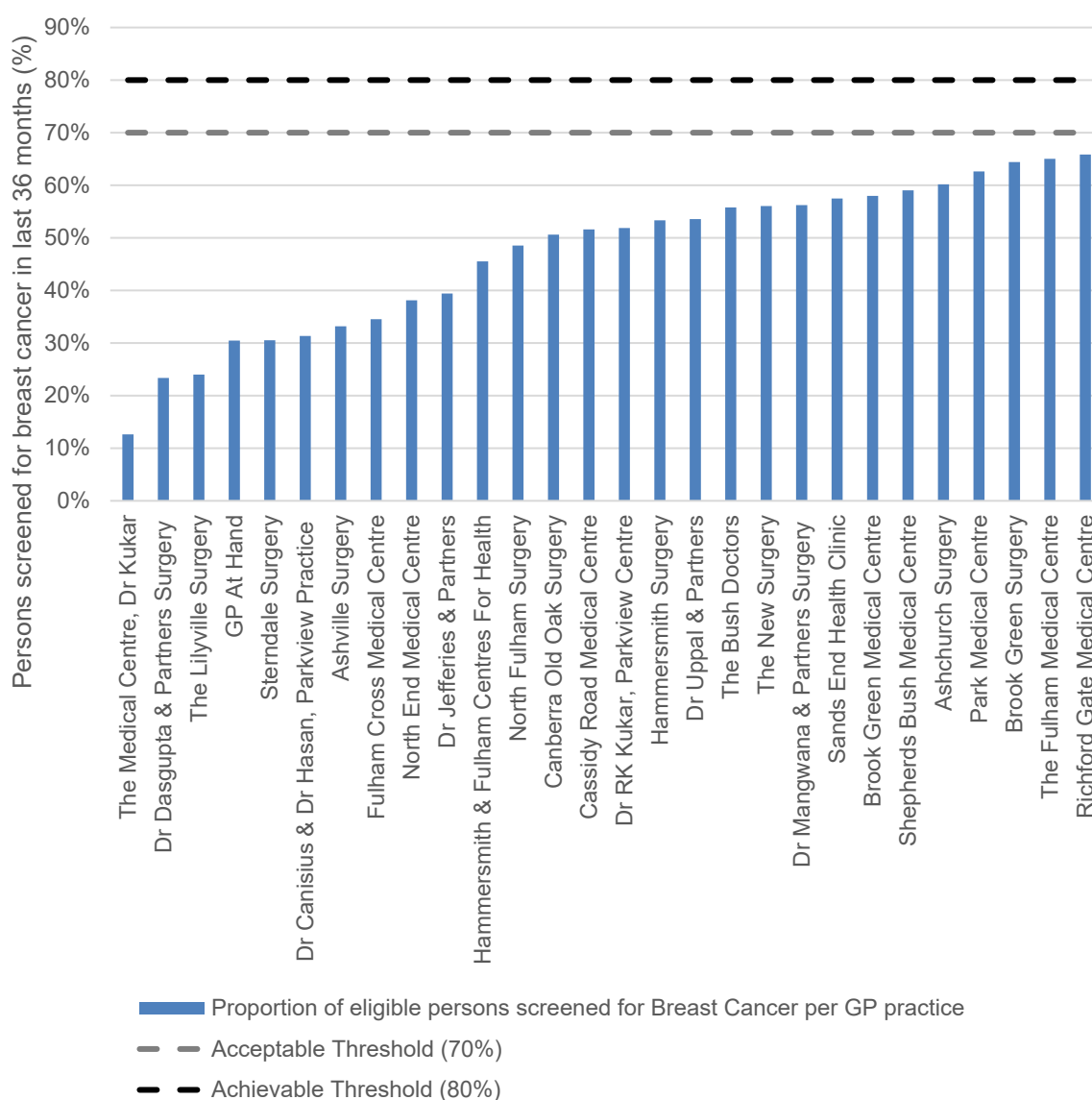


Data source: Public Health England 2021, Cancer Services

The proportion of eligible people who received breast cancer screening varied between GP practice. The lowest proportion of people screened was 12.6% of eligible patients at The Medical Centre, Dr Kukar. The highest proportion was 65.8% of eligible patients at Richford Gate Medical Centre (Figure 17)²⁸. No GP Practice met the Breast Cancer Screening Acceptable Threshold of 70% or the Achievable Threshold of 80%.

²⁸ National Health Application and Integration Services (2021) NHS Cancer Screening Programme

Figure 17: Annual breast cancer screening programme coverage for individuals aged 60-74 in Hammersmith and Fulham CCG, by GP (2021-2022).



Data source: National Health Application and Integration Services (2021) NHS Cancer Screening Programme

Across Hammersmith & Fulham CCG GPs, there is no relationship between deprivation and screening coverage for breast cancer²⁹. Calculation of the Pearson correlation coefficient revealed that there was no significant correlation between breast cancer screening uptake and IMD score ($r = 0.04$) at the GP practice level ([Appendix 6](#)).

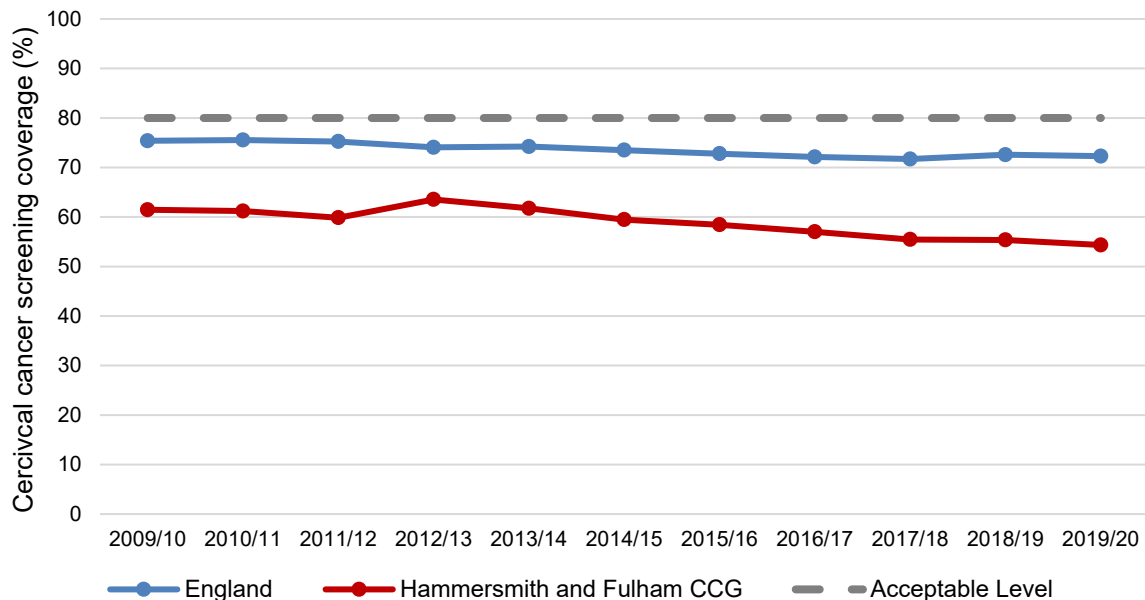
4.3 Cervical Cancer

The proportion of eligible women screened within the last 3.5 years (25-49 years) or 5.5 years (50-64 years) for cervical cancer decreased and remained below the

²⁹ Healthy London Partnership (2019) North West London Cancer Inequalities snapshot.

acceptable level ($\geq 80\%$) in both Hammersmith & Fulham CCG and England between 2009/10 and 2019/20 (Figure 18). However, the decline in the proportion of eligible women receiving cervical cancer screening has been more pronounced in Hammersmith & Fulham CCG, decreasing from 61.5% to 54.4% during the ten-year period (7.1% decrease), compared to a 3.1% overall decrease in England.

Figure 18: Combined annual cervical screening programme coverage for individuals aged 25-49 and 50-64 in Hammersmith and Fulham CCG and in England (2009-10 – 2019-20).



Data source: Public Health England 2021, Cancer Services

Despite the substantial difference between Hammersmith & Fulham CCG and England cervical cancer screening coverage, in 2018 only a 4% difference in the proportion of cervical cancer cases diagnosed at stage one and two separated Hammersmith & Fulham CCG (76%) and England (80%)³⁰.

Examining cervical screening coverage in individuals aged 25-49 years (Figure 19) and aged 50-64 years (Figure 20) revealed coverage decreased more both in Hammersmith & Fulham CCG and England in the younger cohort between 2009/10 and 2019/20. This indicates that the declining screening coverage in younger individuals primarily drove the overall decrease in combined coverage (Figure 18). Over the ten-year period, cervical cancer screening coverage decreased by 5.1% in the 50-64 age group and decreased by 8.8% in the 25-49 age group. For both age groups in Hammersmith & Fulham CCG, coverage remained below the acceptable threshold.

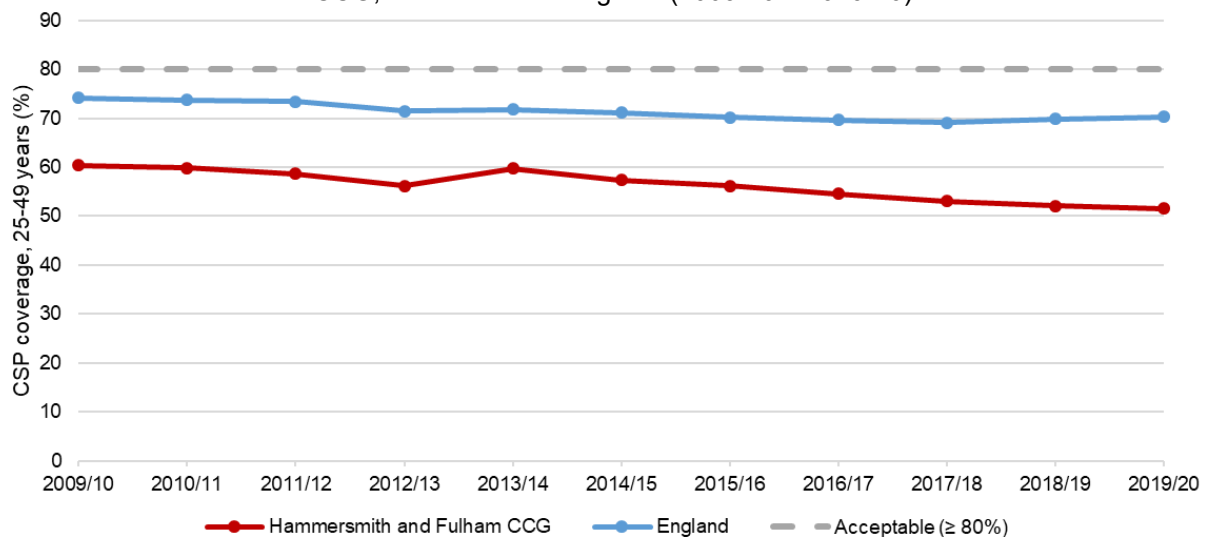
Across all geographic levels, cervical screening coverage for women aged 50-64 surpassed coverage for women aged 25-49 years between 2009/10 and 2019/20. In

³⁰ National Disease Registration Service (2021) Staging Data in England.

England, coverage for women aged 50-64 was relatively close to the acceptable threshold throughout the period with an annual average coverage of 78.2%. In Hammersmith & Fulham CCG, the annual average coverage for the 50-64 cohort was 69.6% in the same period. Overall in 2019, Hammersmith & Fulham ranked 31st in London for cervical screening coverage (50-64 cohort), above only Westminster and Kensington & Chelsea.

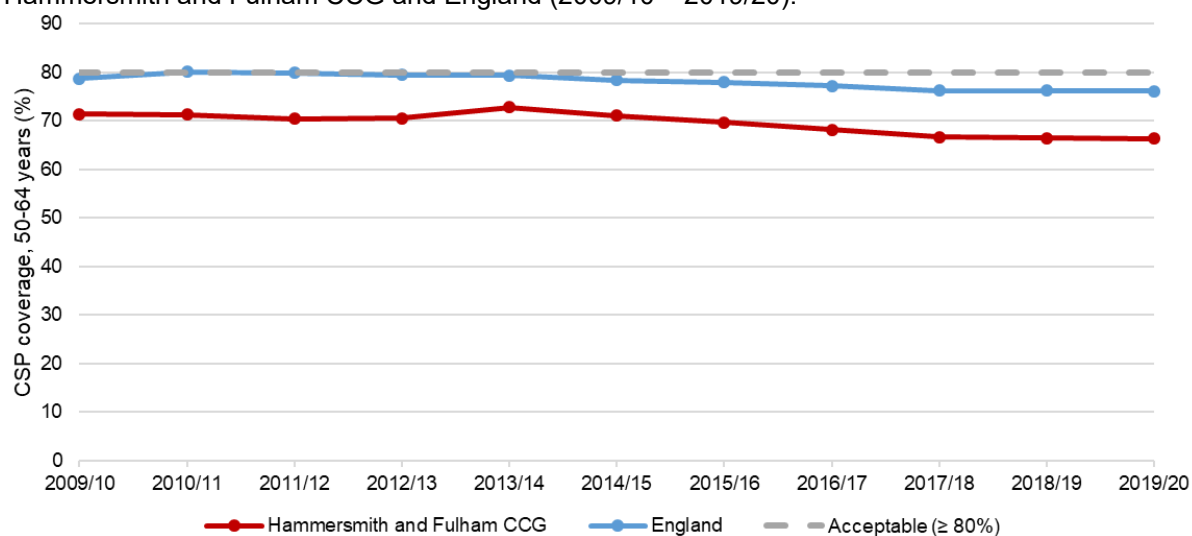
Cervical screening coverage for women aged 25-49 remained consistently lower when compared to the 50-64 age group. In 2019/20, coverage was 70.2% in England, compared to 51.6% in Hammersmith & Fulham CCG. Furthermore, the difference between local and national level coverage in the 25-49 cohort exceeded the difference in the 50-64 age group. In 2019/20, a gap of 18.6% separated coverage in Hammersmith & Fulham CCG compared to London for the 25-49 age group, compared to a difference of 9.8% in the 50-64 cohort. Overall in 2019, Hammersmith & Fulham ranked 29th in London for cervical screening coverage (25-49 cohort), above Westminster, Kensington and Chelsea, Camden and City of London.

Figure 19: Annual cervical screening programme coverage for individuals aged 25-49 in Hammersmith and Fulham CCG, London and in England (2009-10 – 2019-20).



Data source: Public Health England Screening 2021, Key Performance Indicator Data

Figure 20: Annual cervical screening programme coverage for individuals aged 50-64 in Hammersmith and Fulham CCG and England (2009/10 – 2019/20).

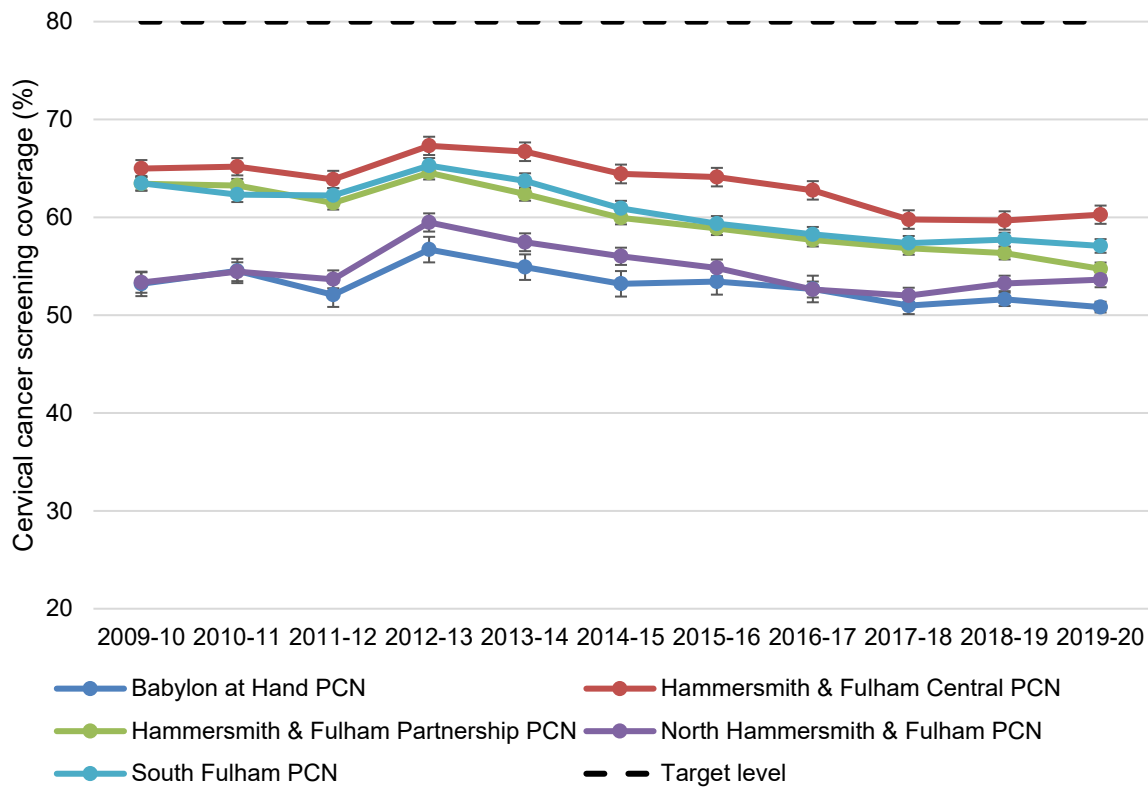


For the cervical cancer screening programme, as with the Bowel Cancer Screening Programme and breast cancer screening programme, Babylon GP at Hand PCN and North Hammersmith & Fulham PCN had the lowest screening coverage between 2009/10 and 2019/20. Cervical cancer screening coverage for the combined cohorts peaked in 2012/13 reaching 55.4% and 64.5% in Babylon GP at Hand PCN, and North Hammersmith & Fulham PCN respectively (Figure 21).

Cervical cancer screening coverage also peaked in 2012/13 for the other three PCNs. Throughout the time period, Hammersmith & Fulham Central PCN had the highest screening coverage, with an annual average cervical cancer screening coverage of 63.6%.

Cervical cancer screening coverage has decreased in all PCNs except North Hammersmith & Fulham PCN where between 2009/10 and 2019/20, coverage increased by 0.3%. Screening coverage decreased the most in Hammersmith & Fulham Partnership PCN, by 8% between 2009/10 and 2019/20.

Figure 21: Annual breast cancer screening programme coverage for individuals aged 50-64 in Hammersmith and Fulham CCG, by PCN (2009-10 – 2019-20).

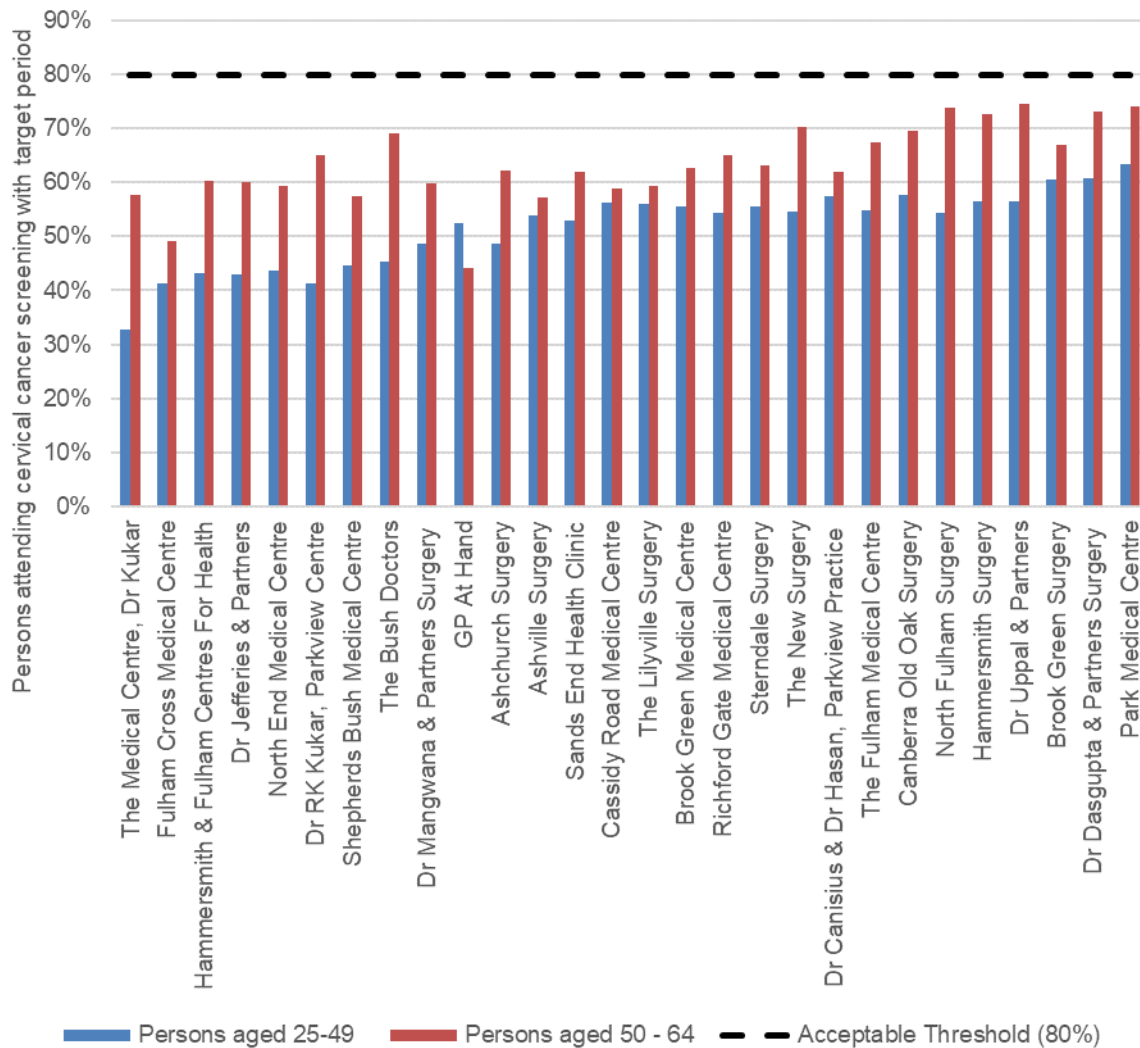


Data source: Public Health England 2021, Cancer Services

The proportion of eligible people who received cervical cancer screening varied between GP practice. Across all persons eligible, the lowest proportion of people screened was 38.0% at The Medical Centre, Dr Kukar, and the highest proportion of people screened was 66.5% at Park Medical Centre. Among persons aged 25 to 49, the lowest proportion screened was 32.7% at The Medical Centre, Dr Kukar, and the highest was 63.5% at Park Medical Centre. Among persons aged 50 to 64, the lowest proportion screened was 44.1% at GP at Hand, and the highest was 74.6% at Dr Uppal & Partners (Figure 22)³¹. No GP Practice met the Cervical Cancer Screening Acceptable Threshold of 80%.

³¹ National Health Application and Integration Services (2021) NHS Cancer Screening Programme

Figure 22: Annual cervical cancer screening programme attendance for persons aged 25-49 and persons aged 50-64 in Hammersmith and Fulham CCG, by GP (2021-2022). The graph is sorted according to age-standardised lowest attendance rate to highest attendance rate.



Data source: National Health Application and Integration Services (2021) NHS Cancer Screening Programme

Across Hammersmith & Fulham GPs, there is a correlation between deprivation and screening coverage among persons aged 50 – 64; as deprivation increases, the proportion of persons screened for cervical cancer also increases. Calculation of Pearson’s correlation coefficient indicated a moderate correlation ($r = 0.4$). However, calculation of Pearson’s correlation coefficient indicated no significant correlation between deprivation IMD score and cervical cancer screening coverage among persons aged 25 – 49 ($r = -0.13$) ([Appendix 6](#)).

5. Local Barriers to Cancer Screening Uptake

Section 5 presents the perceived barriers to cancer screening in Hammersmith & Fulham through discussion with stakeholders and a literature review.

5.1 Hammersmith & Fulham Stakeholder views

Local Stakeholder View Summary

- In 2021, six Hammersmith & Fulham stakeholders from; the GP Federation, NHS England, North West London CCG, Royal Marsden Partners West London Cancer Alliance, and Sobus – a community development agency for Hammersmith & Fulham - were interviewed to provide insights into barriers to cancer screening uptake and current and future interventions to improve screening uptake.
- Issues were highlighted regarding the role of different organisations in commissioning, with no one organisation bearing responsibility for all three cancer screening programmes.
- Barriers to all three screening programmes included a perceived lack of appointments available outside of working hours, combined with a perceived low number of appointments available due to a lower than average number of primary care nurses in Hammersmith & Fulham.
- Hammersmith & Fulham has a high population turnover rate, with 13% of the current population having moved into the borough in the past year, and patients may be lost to follow up as they move between GP practices due to a failure of integration of electronic patient records.
- A lack of knowledge, language, cultural and religious barriers are also barriers to screening uptake.
- It is reported anecdotally that a large number of Hammersmith & Fulham residents receive **cancer screening abroad**. However, screening received abroad is not recognised by NHSE and cannot be entered onto GP systems.
- To improve bowel cancer screening uptake, Community Links directly contacts patients to explain the screening process, the benefits of screening and encourage them to take up screening. Community Links are also able to speak to the residents in their first language as the health facilitators come from a variety of backgrounds. In other areas of London this approach has **improved the number of residents partaking in the bowel screening programme by up to 9%**.
- To improve cervical cancer screening uptake, dedicated clinics have been set up at practices in convenient locations.
- To improve breast cancer screening uptake, a promotional video was circulated across social media platforms in October 2020.

The Hammersmith & Fulham Council reached out to several regional and local stakeholders to gain an insight into the perspectives of organisations involved in the

three national cancer screening programmes – the NHS Bowel Cancer Screening Programme, the NHS Breast Screening Programme, and the NHS Cervical Screening Programme. Representatives from the Hammersmith & Fulham Public Health team invited stakeholders to semi-structured interviews online in May 2021 to discuss the involvement of their organisation in the cancer screening pathway as well as barriers to screening and possible interventions. Six of the stakeholders emailed responded agreeing to be interviewed from Hammersmith and Fulham GP Federation, NHS England (NHSE), North West London (NWL) CCG, Royal Marsden (RM) Partners West London Cancer Alliance, and Sobus – a community development agency for Hammersmith & Fulham.

Four themes emerged from the interviews which form the structure of chapter 5.1: the role of different organisations in commissioning; barriers to cancer screening; interventions to improve cancer screening uptake; and the future of cancer screening programmes in England.

5.1.1. Role of Organisations in Commissioning

Different parts of the commissioning path for each of the three national cancer screening programmes are controlled by different organisations. NHSE have overall responsibility for commissioning screening services, implementing changes to screening programmes and are involved in regional campaigns to increase awareness of cancer screening. NHSE is the main commissioner for both the breast and bowel screening programmes, however much of the commissioning for the cervical screening programme is delegated to CCGs. Table 1 details the women's health services which are able to provide and support cancer screening uptake, service providers, service commissioners, as well as a non-exhaustive list of suggestions of what each service could do to improve cancer screening uptake.

NWL CCGs is a clinically led organisation responsible for planning, buying and monitoring most of the health services used by residents in the area. NWL CCGs role is to assess the needs of the population in the area, including in regard to cancer screening and overseeing the workforce for screening in primary care clinics. Cervical screening is the main focus of NWL CCG's cancer screening work as it is the only programme that occurs in primary care settings. NWL CCG is set to be dismantled in April 2022 after which the new Integrated Care System (ICS) will take over this responsibility with a renewed focus on partnership.

RM Partners, the West London Cancer Alliance hosted by the Royal Marsden leads on the delivery of recommendations in the NHS National Cancer Strategy and the transformation of cancer services in the North West London Sustainability and Transformation Partnership (STP). Alliances work with partners such as CCGs or ICSs to find initiatives that can be introduced to improve uptake of cancer screening programmes.

Hammersmith and Fulham GP Federation Limited is a company owned by the 28 GP practices in Hammersmith & Fulham which supports the delivery of clinical and related

patient services through the local GP practice networks, and acts as a system manager, agent of change, and contract lead. The Federation supports GPs with strategies to improve cancer screening attendance.

Sobus is a Community Development Agency and the Council for Voluntary Service in Hammersmith & Fulham which has been involved in improving cancer screening uptake in the borough, particularly cervical screening. Sobus bridges the gap between the GP Federation and the local voluntary community service and other community groups.

Table 1: Silos present in Women's health care associated with cancer screening.

Service	Who provides	Commissioner	What could be done to boost cancer screening
Cervical Cancer Screening	GPs Occasionally performed at Sexual Health Clinics	NHSEI	Provide more flexible appointments Provide plain language summaries of the importance of screening Raise the awareness of breast cancer screening, where appropriate
Breast Cancer Screening	Hospitals, Health Centres Mobile Breast Screening Units	NHSEI	Offer an opportunistic opportunity to receive a cervical cancer screening examination Raise the awareness of cervical cancer screening, where appropriate
Emergency and Long Acting Reversible Contraception	GPs Sexual Health Clinics	Local Authorities CCGs	Offer opportunistic cervical cancer screening appointments Raise awareness regarding the importance of receiving cancer screening, especially with regards to increased risk of cancer associated with certain contraceptive programmes
Sexual Health Screening	Sexual Health Clinics	Local Authorities CCGs	Offer opportunistic cervical cancer screening appointments Raise awareness regarding the importance of receiving cancer screening
Pharmaceutical Services	Pharmacies	Local Authorities CCG NHSE	Promote cancer screening Provide up-to date information and the benefits of early detection
Mental Health Services	Mental Health Units IAPT Services Mental Health Integrated Network Teams Homeless Services	NHS Trusts	Provide support to those who may be refusing cervical cancer screening due to previous trauma
Learning Disability Services	Adult Social Care Third Sector organisations	Local Authorities	Raise awareness of the importance of cancer screening
Gender Identity Clinics	Specialist clinics	NHSE	Raise awareness of the importance of cancer screening amongst all people who have a cervix and/or breasts
Alcohol and Stop Smoking services	Drug and Alcohol Wellbeing Service Kick-It Third Sector organisations	Local Authorities	Raise awareness regarding the importance of receiving cancer screening, especially with regards to increased risk of cancer associated with drinking and smoking

5.1.2. Barriers to screening programme uptake

Although there are specific barriers to uptake for each cancer screening programme, stakeholders primarily discussed barriers which applied to all three programmes.

Accessibility to services emerged as a key perceived barrier to the uptake of screening programmes. In addition to physical barriers to screening centres and primary care (e.g. transport), stakeholders emphasised the perceived lack of opportunities for individuals to attend screening appointments at times outside of working hours. The low number of nurses in GP practices in Hammersmith & Fulham also presents a barrier to cervical screening which is carried out in primary care, resulting in reduced availability of appointments.

Failed integration of electronic patient records may also minimise opportunities for individuals to attend screening as patients may be lost to follow up as they move between GP practices. Hammersmith & Fulham had the second highest population turnover rate in 2019, therefore it is an important barrier to consider in the borough.

Knowledge is a significant barrier to improving cancer screening uptake, both for residents and commissioners of services. Residents may be unaware of the benefits of cancer screening and hesitant to learn the results of their appointment. Individuals who have received the Human Papillomavirus (HPV) vaccine can also incorrectly believe that they are exempt from attending a cervical screening examination. Language may compound knowledge barriers due to a lack of resources in a variety of languages and interpreters to communicate individual's concerns. Increased awareness and knowledge in communities may also help individuals feel more comfortable regarding the intimacy of screening procedures such as smear tests. Furthermore, the lack of in-depth local knowledge on barriers to specific socio-demographic groups reduces the ability of local stakeholders to design interventions to improve screening uptake.

Stakeholders emphasised cultural and religious barriers to screening uptake specific to local communities, and the issue of introducing widespread interventions that may result in stereotyping of communities. BAME communities may be less willing to trust governmental public health interventions due to historical issues and perceptions of institutional racism. Health messages are more likely to be received by someone known and trusted within BAME communities, including faith groups, community leaders and lay health educators.

Research in Hammersmith & Fulham by Sobus specific to the cervical screening programme found that it was difficult to reach women in some communities within the borough as communication often occurred via husbands or other family members. In addition, the stigma associated with sexual health procedures results in reluctance to come forward for screening due to concerns over perceptions from the community.

Stakeholders also referenced certain specific groups of individuals who may not come forward for cancer screening and are not represented in national data. Firstly, individuals who do not attend NHS screening programme appointments may be screened by a private healthcare provider or receive cancer screening abroad. Screening from private providers and screening received abroad is not recognised by the NHS, therefore this may result in individuals that have been screened being identified by the NHS as not coming forward, particularly in areas with low deprivation. It has been suggested that if the individuals who receive cancer screening privately or abroad were recognised by the NHS as having been screened, then Hammersmith & Fulham would reach acceptable screening levels. However, an audit would need to be performed to determine the extent of the number of individuals who receive screening privately and/or abroad. Secondly, homeless individuals are underrepresented in screening programmes due to individuals often not being registered to a GP practice and a lack of outreach services. Thirdly, sex workers – who are at an increased risk of HPV – may not be successfully screened for cervical cancer due to mistrust of the healthcare system. Finally, interviewees emphasised the importance of ensuring trans men and non-binary individuals assigned female at birth who are registered with a GP as male are encouraged to come forward for cervical and breast cancer screening.

5.1.3. Interventions to improve cancer screening uptake

NHSE promotes awareness of screening programmes nationally and regionally. Evidence suggests national campaigns lead to spikes in screening uptake, however, have a limited impact long term. Instead, evidence indicates embedded local ongoing initiatives are effective at maintaining high uptake, ensuring the new eligible population in each period is screened. In addition, once individuals attend their first screening appointment it is more likely they will attend again in the future.

In July 2021, NWL CCG launched a new campaign called '**Cancer won't wait**' across North West London due to a reduced number of individuals taking up screening appointments and attending referral appointments since COVID-19 lockdown restrictions were introduced in March 2020. In addition, fewer individuals are presenting to GPs with health concerns which may reduce the proportion of cancers detected at an early stage. The campaign encourages individuals to attend screening appointments for bowel, breast and cervical screening and to contact their GP with any health concerns.

Bowel Screening

In 2019/20, to increase bowel cancer screening Hammersmith & Fulham and the wider West London area, RM Partners initially procured a voluntary sector organisation called '**Community Links**' to contact patients who had not returned their bowel screening kit in 2019/20. Community Links are now calling patients in Hammersmith & Fulham who are approaching 60 and therefore being invited for their first bowel screening to encourage attendance. As well as calling on three different occasions (including out-of-hours) they will speak to patients in their first language as their health facilitators come from a variety of cultural backgrounds and speak various languages.

During the phone call the facilitator discussed the bowel cancer screening process and the benefits of screening. Patients were informed of how to use the kit and participation in the programme encouraged. **In other areas of London, the approach has proven to improve bowel screening completion by up to 9%.** We are currently waiting on local evaluation. The intervention is due to be scaled up in Hammersmith & Fulham to run searches for patients that have been sent an invitation in the last three months.

Cervical Screening

In 2018, RM Partners commissioned Hammersmith & Fulham GP Federation to establish a programme to raise awareness and improve uptake of cervical screening in Hammersmith & Fulham. The long-term goal of the project aimed to reduce the incidence of cervical cancer related deaths in Hammersmith & Fulham. Hammersmith & Fulham GP Federation set up a cervical cancer screening project team which coordinated the different arms of the programme.

The service improved accessibility to services by establishing dedicated clinics hosted at practices in Hammersmith & Fulham in convenient locations near public transport and in areas of low uptake or high deprivation in April 2018. In 2019, the service was based centrally, co-located with a well-known sexual health clinic as well as establishing a clinic based in the most deprived part of the borough. RM Partners also funded extended hours cervical screening. The approach ensured maximisation of service accessibility and increased opportunities for service integration.

In 2019/20 the service was co-located with a well-known sexual health clinic based centrally, in addition to a dedicated clinic situated in the most deprived part of the borough. This provided greater opportunities for service integration as well as maximising service accessibility for patients. Female nurses were also trained to work in the clinics and opening hours expanded to evenings and weekends. The project team proactively targeted patients registered at practices with low screening uptake who were overdue for a screening appointment.

The project also engaged with local communities to increase awareness and knowledge regarding the importance of cervical screening. Hammersmith & Fulham CCG (now merged into North West London CCG) and Sobus, commissioned by the GP Federation, carried out engagement sessions with local community groups including the Somalian women's community which also enabled stakeholders to learn of specific barriers to screening in different communities. A video regarding the service was made and promoted to increase awareness across Hammersmith & Fulham.

As of July 2021, an estimated 2,000 women within the borough have accessed cervical screening through dedicated cervical screening nurses or by practice nurses. The programme won Jo's Trust Award in 2019/20 and was shortlisted for the 2020 Nursing Time Awards for the outstanding work of the project. However, this service has now been stopped due to a lack of funding.

In July 2022, as part of the West London Personal Medical Services (PMS) Commissioning Intentions, outlined specifications to improve the primary care cervical screening service. The scope included following up on missed screening invites and promoting cervical screening. In order to follow up on missed screening invites GP practices are required to attempt three telephone contacts on different days to offer a cervical screening appointment, and if that fails then to send an SMS 18 weeks after the original invitation letter. Where the GP practice has performed all required contact attempts and recorded the outcome they will be paid £10.07 per patient. In order to promote cervical screening, GP practices will run promotional campaigns on websites and provide access to printed material in waiting rooms. GP practices will be paid £100 to undertake promotional activities.³²

Several London boroughs are currently piloting home testing kits for cervical screening to increase convenience and accessibility. Over 31,000 women who are overdue a cervical cancer screening examination, will be offered tests as part of the pilot in the hope that the opportunity to test at home will tackle barriers to screening such as embarrassment, cultural barriers, fear of the procedure, and COVID-19 concerns³³.

The 'Help Us Help You – Cervical Screening' campaign was launched by the Department of Health in collaboration with NHS England and NHS Improvement. This campaign aims to increase uptake of cervical cancer screening with a particular emphasis on areas of low uptake including Hammersmith & Fulham. As part of the campaign, cervical screening awareness training sessions are being run for community champions and ambassadors so these champions and ambassadors can themselves raise awareness of the risks of cervical cancer, highlight the preventative benefits of screening and encourage those eligible for screening to respond to their cervical screening invitation letter and to book an appointment with their GP practice if they missed their last screening.³⁴

Furthermore, a London focussed social media campaign, aligned to the cervical screening campaign, is running between February and April 2022. This campaign aims to improve cervical cancer screening uptake through increased awareness via social media and community engagement.

Breast cancer

In October 2020, RM Partners launched a promotional video to encourage breast awareness in light of Breast Cancer Awareness month. The video ran across social media platforms aiming to raise awareness of the importance of breast screening and reassure patients services were available despite COVID-19.

³² PMS Commissioning Intention: Primary Care Cancer Screening: Cervical (2022) West London Clinical Commissioning Group

³³ YouScreen (2022) SmallC

³⁴ New National Cervical Screening Campaign (2022) GOV.UK

RM Partners have also recently commissioned Community Links to call patients who have not contacted the screening service to arrange their Open Invitation after 6 weeks of being invited to arrange an appointment. If the patients do not call to make an appointment within 10 to 14 days they will also receive two SMS.

Other interventions

Throughout interviews, stakeholders voiced their thoughts regarding challenges facing the implementation of interventions and ideas for the future.

Hammersmith & Fulham GP Federation emphasised the need for a 'one-stop shop' in which patients could receive a full health check – including cancer screening – in a short appointment to improve service accessibility and improve screening uptake.

Hammersmith & Fulham GP Federation also emphasised the importance of taking all opportunities available to engage with the local community to raise awareness of the importance of cancer screening. For example, parent groups and primary care professionals could be utilised to provide individuals with information regarding available screening programmes.

To increase uptake in marginalised groups, stakeholders discussed the centrality of building trust with organisations which work with these communities and working across borough boundaries. These organisations are able to provide in-depth knowledge of barriers to screening in specific groups and supply intelligence which may inform the design of interventions. For homeless individuals, day centres visited by these individuals could be used as an opportunity to offer screening appointments in addition to other healthcare required. For sex workers, discussing the importance of screening appointments at sexual health clinics may increase screening uptake coupled with establishment of dedicated clinic hours and phone lines.

Sobus suggest that the most successful interventions have included interventions that engaged with the head of a community who acts as a representative. The individual can then act as a messenger between health services and the local community and provide information on the cultural and social beliefs held by the community and helps inform on communication cues that will help with engagement.

5.1.4. Future of Screening Programmes in England

Following the merging of CCGs which took place on 1 April 2021, NHS England plans to replace CCGs with Integrated Care Systems (ICS) in 2022. The introduction of ICSs will focus on partnerships between health organisations in an area to better meet the health needs of the population and provide coordinated care, including for cancer screening.

The approach of the cervical screening programme may change in the future as cohorts of individuals who received HPV vaccinations at younger ages become eligible for cervical screening. Furthermore, if the pilot of home testing kits is successful, a wider roll-out of home testing may reduce the need to dedicated clinics to provide these services.

5.2 Barriers and Facilitators of Cancer Screening Uptake: A Literature Review

The aim of this literature review is to identify barriers to cancer screening participation, as well as establishing interventions which could help to improve the participation rates.

Literature Review Summary

- Through the analysis of 40 research papers, it was found that GP endorsement via a letter sent to the individual's home address is one of the most successful strategies in increasing cancer screening uptake
- Other strategies that were found to be effective at increasing cancer screening uptake included a plain language summary reminder, social norm-based motivation, intention based volitional help sheet, SMS reminders, scheduling a fixed second appointment, and telephone promotion
- Certain groups of people are less likely to partake in bowel cancer screening, including people living in more deprived areas, people from ethnic minorities, those who have recently had a medical examination and people with a Learning Disability
- Reasons for non-participation in the bowel cancer screening programme included fearing positive results and the fear of becoming old, hygiene and stigma surrounding taking a faecal sample, previous bad experience with the NHS and a lack of knowledge surrounding the screening programme
- Discussion surrounding the bowel cancer screening programme was found to be a positive motivator
- Women with poor mental health or a chronic disability were found to be less likely to attend a breast cancer screening appointment
- Education, language barriers, a lack of IT proficiency, poor literacy and difficulty understanding terms including 'mammography' and 'screening' were all found to be barriers to breast cancer screening
- Women were concerned about receiving information relating to breast cancer risk via letter as there would be no one to ask questions to
- Women from ethnic minorities were found to be less likely to attend cervical cancer screening
- Research identified perceived barriers to cervical cancer screening included a lack of access and appointment times, negative previous experiences, feelings of embarrassment and fear as well as a lack of knowledge and awareness around the cause of cervical cancer and the purpose of screening
- Easy appointment scheduling and the option to perform home vaginal swabs were found to be positive motivators in the uptake of cervical cancer screening

Introduction

The NHS has three main screening programmes implemented; the NHS bowel screening programme, the NHS breast screening programme and the NHS cervical screening programme. The bowel screening programme targets individuals between the ages of 60 to 74 using home FIT kits. The breast screening programme targets women between the ages of 50 to 70 and are invited for a breast mammogram every three to five years. The cervical screening programme targets women between the ages of 25 and 64 every three to five years and involves obtaining smear samples.

The screening programmes aim to detect changes in cell or cancer cells early on in the otherwise healthy, asymptomatic population. The benefit of early detection allows for timely treatment and a more promising prognosis. For example the breast screening programme has been shown to reduce breast cancer mortality by about 20%³⁵. For this reason, there is a nationwide push to promote these screening programmes and improve attendance rates. Public Health England published a standard of cancer screening attendance that should be met for each programme in each borough or region, described by the 'acceptable level' and the 'achievable level'. The 'acceptable level' is the lowest level of performance that services are expected to achieve to ensure patient safety and efficient service provision³⁶. This level varies depending on the cancer screening programme; 52%, 70% and 80% for bowel, breast and cervical screening respectively. The 'achievable level' is the level at which services are running optimally.

The trends across England demonstrate that the average borough or region is usually able to meet the acceptable level, however, not the achievable level. The trends in the Hammersmith & Fulham have consistently been underachieving both the 'acceptable level' and 'achievable level' targets for numerous years in all three of the cancer screening programmes. The participation rates are even lower in specific population groups such as ethnic minority groups, immigrants and in the homeless.

Therefore, the aim of this literature review is to identify the barriers to cancer screening participation and to establish interventions to tackle these barriers in Hammersmith & Fulham and help improve the participation rates.

Methodology

An in-depth explanation of the study selection process and information extraction process can be found in [Appendix 8](#).

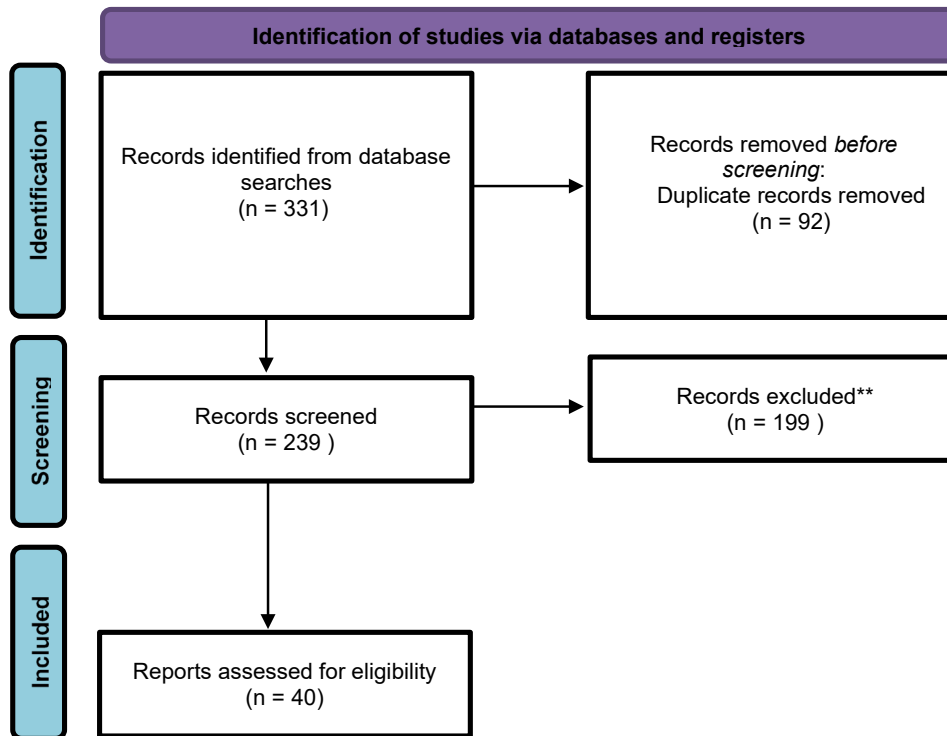
³⁵ Marmot MG, Altman DG, Cameron DA, Dewar JA, Thompson SG, Wilcox M. The benefits and harms of breast cancer screening: an independent review. *Br J Cancer*. 2013;108(11):2205-2240. doi:10.1038/bjc.2013.177

³⁶ Public Health England (2017) "Consolidated Standards for NHS Breast Screening Programme,".

Results

The database produced 331 articles following the search terms. Articles were screened for eligibility, which led to a total of 40 articles being selected for analysis in this review. This process is illustrated in Figure 23.

Figure 23: Flow Diagram detailing the Paper Selection Process for the Literature Review.



From the 40 articles, 27 discuss barriers to cancer screening attendance through qualitative studies or investigating correlations between different factors and attendance. 12 studies discuss interventions to potentially overcome these barriers through randomized controlled trials or risk stratified approaches. The summary of the studies analysed in this review can be found in Table 3 below.

Interventions

Of the 12 studies looking at interventions, four looked at the effect of GP endorsement letters on bowel cancer screening^{37,38,39,40}. All of these studies reported a statistically significant increase in uptake of screening with GP endorsement versus non-endorsed, 59.4% vs 58.7% ($p=0.04$)³⁷, 54% vs 51% ($p<0.001$)³⁸, 58.2% vs 57.5% ($p<0.001$)³⁹ and 5.8% increase in GP endorsement group (95% CI: 4.1-7.8%)⁴⁰. Routine practice has changed, highlighting the importance of studies such as these; the bowel cancer screening programme now routinely places GP banners on invitation and test kit letters³⁷. Additionally, Huf et al found that a GP endorsed SMS was effective for increasing uptake of cervical cancer screening in first time invitees (31.4% vs 26.4% ($p=0.002$))⁴¹.

Four studies examined different ways of framing the information for example through social norms motivation^{41,42}, gain or loss framed motivation⁴⁰, volition intention motivation⁴¹, simple language summary⁴³ or by addressing known barriers⁴⁴. Raine et al⁴² found a statistically significant difference between control and intervention by using a plain language summary reminder (25.8% vs 25.1% ($p=0.001$)). By addressing the barriers to bowel cancer screening, Lo et al⁴⁴ did not find a significant difference in uptake. Wilding et al⁴² also did not find a significant difference between any of the intervention arms and control for bowel cancer screening uptake. However, sub-group analysis did show a significant increase in uptake with the combined social norm-based motivational and intention based volitional help sheet intervention in the youngest age group compared to control (OR = 1.27; 95% CI: 1.05-1.54)⁷. Huf et al⁴¹ also found significant differences with sub-group analysis but none of these pertained to gain, loss or gain framed motivation. Nevertheless, they did find that an SMS reminder was effective (38.1% vs 26.4% ($p=0.03$)) for enhancing cervical cancer

³⁷ Cross AJ, Myles J, Greliak P, et al. Including a general practice endorsement letter with the testing kit in the Bowel Cancer Screening Programme: Results of a cluster randomised trial. *J Med Screen*. February 2021;969141321997480. doi:10.1177/0969141321997480

³⁸ Benton SC, Butler P, Allen K, et al. GP participation in increasing uptake in a national bowel cancer screening programme: the PEARL project. *Br J Cancer*. 2017;116(12):1551-1557. doi:10.1038/bjc.2017.129

³⁹ Raine R, Duffy SW, Wardle J, et al. Impact of general practice endorsement on the social gradient in uptake in bowel cancer screening. *Br J Cancer*. 2016;114(3):321-326. doi:10.1038/bjc.2015.413

⁴⁰ Hewitson P, Ward AM, Heneghan C, Halloran SP, Mant D. Primary care endorsement letter and a patient leaflet to improve participation in colorectal cancer screening: results of a factorial randomised trial. *Br J Cancer*. 2011;105(4):475-480. doi:10.1038/bjc.2011.255

⁴¹ Huf S, Kerrison RS, King D, et al. Behavioral economics informed message content in text message reminders to improve cervical screening participation: Two pragmatic randomized controlled trials. *Prev Med (Baltim)*. 2020;139:106170. doi:10.1016/j.ypmed.2020.106170

⁴² Wilding S, Tsipa A, Branley-Bell D, et al. Cluster randomized controlled trial of volitional and motivational interventions to improve bowel cancer screening uptake: A population-level study. *Soc Sci Med*. 2020;265:113496. doi:10.1016/j.socscimed.2020.113496

⁴³ Raine R, Moss SM, von Wagner C, et al. A national cluster-randomised controlled trial to examine the effect of enhanced reminders on the socioeconomic gradient in uptake in bowel cancer screening. *Br J Cancer*. 2016;115(12):1479-1486. doi:10.1038/bjc.2016.365

⁴⁴ Lo SH, Good A, Sheeran P, et al. Preformulated implementation intentions to promote colorectal cancer screening: a cluster-randomized trial. *Health Psychol*. 2014;33(9):998-1002. doi:10.1037/a0033507

screening uptake as well as GP endorsement⁴¹. Hirst et al.⁴⁵ also utilised an SMS reminder. This was only effective for increasing bowel cancer screening attendance in first time attendees versus control (40.5% vs 34.9% (p=0.02)).

Allgood et al.⁴⁶ investigated the use of scheduling a second fixed date appointment time for mammography as part of the breast cancer screening programme versus a letter with a telephone number to call to book a second appointment as a control. They found that scheduling a fixed second appointment significantly increased uptake (22% vs 12% (p=0.0002)).

Another strategy employed by the trials was a direct clinician contact whether this be telephone or face to face. Shankleman et al⁴⁷ performed a cluster-randomised control trial with face to face health promotion on bowel cancer screening in East London or telephone promotion versus standard practice. The odds of uptake were significantly improved by telephone promotion in both males (OR=1.39, 95% CI=1.20-1.61, P<0.001) and females (OR=1.49, 95% CI=1.29-1.73, P<0.001). In contrast, the face to face health promotion sessions only increase uptake in males (OR=1.23, 95% CI=1.10-1.36), P<0.001) and not in females (OR=1.12, 95% CI=0.96-1.29, P=0.2). It was suggested that face to face health promotion may have had more of an impact on males due to the result of a direct interaction between this type of intervention and male-specific behaviour, or as a consequence of the social behaviour of Pakistani and Bangladeshi women.

Kearins et al⁴⁸ undertook a cohort study of 548 persistent non-attenders in Birmingham to breast cancer screening who were contacted either by telephone or via home visit. This increased uptake from 62.2% to 65.3% for the region. Of this cohort, at that time 14 out of the 548 chose to permanently withdraw from the screening programme and will not be recalled.

⁴⁵ Hirst Y, Skrobanski H, Kerrison RS, et al. Text-message Reminders in Colorectal Cancer Screening (TRICCS): a randomised controlled trial. *Br J Cancer*. 2017;116(11):1408-1414. doi:10.1038/bjc.2017.117

⁴⁶ Allgood PC, Maroni R, Hudson S, et al. Effect of second timed appointments for non-attenders of breast cancer screening in England: a randomised controlled trial. *Lancet Oncol*. 2017;18(7):972-980. doi:10.1016/S1470-2045(17)30340-6

⁴⁷ Shankleman J, Massat NJ, Khagram L, et al. Evaluation of a service intervention to improve awareness and uptake of bowel cancer screening in ethnically-diverse areas. *Br J Cancer*. 2014;111(7):1440-1447. doi:10.1038/bjc.2014.363

⁴⁸ Kearins O, Walton J, O'Sullivan E, Lawrence G. Invitation management initiative to improve uptake of breast cancer screening in an urban UK Primary Care Trust. *J Med Screen*. 2009;16(2):81-84. doi:10.1258/jms.2009.009006

Barriers

Bowel

15 studies commented on the barriers to bowel cancer screening. Several common themes emerged.

Deprivation was found to be correlated to bowel cancer screening uptake; Raine et al⁴⁹ found 65.2% participation in the IMD least deprived quintile versus 43.3% participation in IMD most deprived quintile. Cross et al. discovered two possible mechanisms for lower uptake in more deprived communities. 1.3% of tests from people in the most deprived quintile were spoilt in comparison to only 0.6% in the least deprived quintile. 55.8% of kits did not deliver to the most deprived quintile whereas only 32.2% did not deliver in the least deprived quintile⁵⁰.

Variation in uptake between ethnic groups in Scotland was analysed by Campbell et al. with uptake lower across ethnic minority groups. This effect was also seen when the cohort was analysed by religion with lower uptake in Hindu, Muslim and Sikh individuals⁵¹.

Specific patient populations may have different health needs that are not fully taken account of by the screening programme. Mead et al identified that 2.3% of bowel screening non-participants had a medical reason to not participate⁵² and one focus group reported that participants cited recent gastrointestinal (GI) investigations as a reason not to participate⁵³. This suggests that there is a cohort of patients being invited for screening in whom the test is not needed due to GI investigations outside the scope of the programme.

Patients with learning disabilities (LD) have been identified as a group of people who have low uptake of bowel cancer screening. Bowler and Nash conducted a study in South Tyneside which revealed that of their eligible learning disabilities cohort only 23% had discussed bowel cancer screening with a community LD team member and

⁴⁹ Raine R, Duffy SW, Wardle J, et al. Impact of general practice endorsement on the social gradient in uptake in bowel cancer screening. *Br J Cancer*. 2016;114(3):321-326. doi:10.1038/bjc.2015.413

⁵⁰ Cross AJ, Myles J, Greliak P, et al. Including a general practice endorsement letter with the testing kit in the Bowel Cancer Screening Programme: Results of a cluster randomised trial. *J Med Screen*. February 2021;969141321997480. doi:10.1177/0969141321997480

⁵¹ Campbell C, Douglas A, Williams L, et al. Are there ethnic and religious variations in uptake of bowel cancer screening? A retrospective cohort study among 1.7 million people in Scotland. *BMJ Open*. 2020;10(10):e037011. doi:10.1136/bmjopen-2020-037011

⁵² Mead L, Porteous L, Tait M, et al. The prevalence of medical reasons for non-participation in the Scottish breast and bowel cancer screening programmes. *J Med Screen*. 2015;22(2):106-108. doi:10.1177/0969141315572173

⁵³ Hall NJ, Rubin GP, Dobson C, et al. Attitudes and beliefs of non-participants in a population-based screening programme for colorectal cancer. *Health Expect*. 2015;18(5):1645-1657. doi:10.1111/hex.12157

of these fewer than half (47%) had went on to have a screening test. Qualitative data showed that barriers included patient embarrassment and requiring a doctor-led decision on mental capacity and best interests⁵⁴.

A number of focus groups have been conducted to reveal the reasons for non-participations in bowel cancer screening. Several themes emerged. Participants reported an emotional reaction to the bowel cancer screening invitation which encompassed the fear of positive results and cancer diagnosis and well as the fear that the invitation to screening signified that they were growing old^{53,55,56,57}. However, conversely, Vrinten et al. found that occasional or sometimes worrying about a cancer diagnosis increased intentions to participate in bowel cancer screening relative to self-reporting no worry about cancer⁵⁸. Another major barrier that invoked an emotional reaction in some participants was the hygiene and stigma surrounding carrying out a faecal sample on themselves^{53,55,56,57}. Participants reported that they would be more comfortable to have the samples done in a medical setting. In addition to this Waller et al. found that 84% of participants wanted a medical recommendation prior to carrying out the test as well as 77-78% wanting the full risks and benefits⁵⁹. Past experience, both with the bowel cancer screening system and more generally with the NHS were also reported as reasons to be hesitant to take up the offer of bowel cancer screening^{60,61,62,63} although general trust in the NHS was found to be high⁵⁶. The final

⁵⁴ Bowler M, Nash P. Learning disabilities: improved bowel screening. *Nurs Times*. 2015;111(14-6):49-50.

⁵⁵ Bradley DT, Treanor C, McMullan C, Owen T, Graham A, Anderson D. Reasons for non-participation in the Northern Ireland Bowel Cancer Screening Programme: a qualitative study. 2015;5(9):e008266. doi:10.1136/bmjopen-2015-008266

⁵⁶ Palmer CK, Thomas MC, von Wagner C, Raine R. Reasons for non-uptake and subsequent participation in the NHS Bowel Cancer Screening Programme: a qualitative study. *Br J Cancer*. 2014;110(7):1705-1711. doi:10.1038/bjc.2014.125

⁵⁷ Ekberg M, Callender M, Hamer H, Rogers S. Exploring the decision to participate in the National Health Service Bowel Cancer Screening Programme. *Eur J Cancer Prev*. 2014;23(5):391-397. doi:10.1097/CEJ.0000000000000007

⁵⁸ Vrinten C, Stoffel S, Dodd RH, Waller J, Lyratzopoulos Y, von Wagner C. Cancer worry frequency vs. intensity and self-reported colorectal cancer screening uptake: A population-based study. *J Med Screen*. 2019;26(4):169-178. doi:10.1177/0969141319842331

⁵⁹ Waller J, Macedo A, von Wagner C, et al. Communication about colorectal cancer screening in Britain: public preferences for an expert recommendation. *Br J Cancer*. 2012;107(12):1938-1943. doi:10.1038/bjc.2012.512

⁶⁰ Hall NJ, Rubin GP, Dobson C, et al. Attitudes and beliefs of non-participants in a population-based screening programme for colorectal cancer. *Health Expect*. 2015;18(5):1645-1657. doi:10.1111/hex.12157

⁶¹ Bradley DT, Treanor C, McMullan C, Owen T, Graham A, Anderson D. Reasons for non-participation in the Northern Ireland Bowel Cancer Screening Programme: a qualitative study. 2015;5(9):e008266. doi:10.1136/bmjopen-2015-008266

⁶² Palmer CK, Thomas MC, von Wagner C, Raine R. Reasons for non-uptake and subsequent participation in the NHS Bowel Cancer Screening Programme: a qualitative study. *Br J Cancer*. 2014;110(7):1705-1711. doi:10.1038/bjc.2014.125

⁶³ Ekberg M, Callender M, Hamer H, Rogers S. Exploring the decision to participate in the National Health Service Bowel Cancer Screening Programme. *Eur J Cancer Prev*. 2014;23(5):391-397. doi:10.1097/CEJ.0000000000000007

major theme of barrier to emerge was lack of knowledge surrounding the test and its purpose^{6460,6561,6662,6763}. Entwined with this was a sense of feeling well with no family history of bowel cancer leading to the participant feeling that the test had low relevance to themselves^{64,65,66,6760616263}.

Some focus groups also asked questions to identify positive motivators for screening. Vrinten et al.⁶⁸ found that married participants were more likely to report positive screening intentions versus single participants (88% vs 79%). Ekberg et al.⁶⁹ also found that having a significant other was a positive motivator. Gale et al. found that better cognition and higher conscientiousness (as rated by the Big Five personality questionnaire) were associated with increased participation in bowel cancer screening (OR 1.10 (95% CI 1.03-1.18), OR 1.10 (95% CI 1.01-1.19))⁷⁰. Bradley et al. found that discussion regarding the screening test enabled people to overcome the specific barriers fear of bad news and reluctance to conduct the test themselves in particular⁶¹.

Breast

Ross et al. identified via a cohort study that women self-reporting poor mental health were 23% less likely to attend breast screening (OR 0.77 (95% CI 0.73-0.82)). This study also examined women with disability. Individuals with one disability were 7% less likely to attend and women living with four or more chronic disabilities were 25% less likely to attend⁷¹. A further study showed that women prescribed psychotropic medications in the past three months, which was 30.6% of women, had an odds ratio (OR) for attendance to screening of 0.85. Attendance was lowest in those prescribed

⁶⁴ Hall NJ, Rubin GP, Dobson C, et al. Attitudes and beliefs of non-participants in a population-based screening programme for colorectal cancer. *Health Expect*. 2015;18(5):1645-1657. doi:10.1111/hex.12157

⁶⁵ Bradley DT, Treanor C, McMullan C, Owen T, Graham A, Anderson D. Reasons for non-participation in the Northern Ireland Bowel Cancer Screening Programme: a qualitative study. 2015;5(9):e008266. doi:10.1136/bmjopen-2015-008266

⁶⁶ Palmer CK, Thomas MC, von Wagner C, Raine R. Reasons for non-uptake and subsequent participation in the NHS Bowel Cancer Screening Programme: a qualitative study. *Br J Cancer*. 2014;110(7):1705-1711. doi:10.1038/bjc.2014.125

⁶⁷ Ekberg M, Callender M, Hamer H, Rogers S. Exploring the decision to participate in the National Health Service Bowel Cancer Screening Programme. *Eur J Cancer Prev*. 2014;23(5):391-397. doi:10.1097/CEJ.0000000000000007

⁶⁸ Vrinten C, Stoffel S, Dodd RH, Waller J, Lyratzopoulos Y, von Wagner C. Cancer worry frequency vs. intensity and self-reported colorectal cancer screening uptake: A population-based study. *J Med Screen*. 2019;26(4):169-178. doi:10.1177/0969141319842331

⁶⁹ Ekberg M, Callender M, Hamer H, Rogers S. Exploring the decision to participate in the National Health Service Bowel Cancer Screening Programme. *Eur J Cancer Prev*. 2014;23(5):391-397. doi:10.1097/CEJ.0000000000000007

⁷⁰ Gale CR, Deary IJ, Wardle J, Zaninotto P, Batty GD. Cognitive ability and personality as predictors of participation in a national colorectal cancer screening programme: the English Longitudinal Study of Ageing. *J Epidemiol Community Health*. 2015;69(6):530-535. doi:10.1136/jech-2014-204888

⁷¹ Ross E, Maguire A, Donnelly M, Mairs A, Hall C, O'Reilly D. Does poor mental health explain socio-demographic gradients in breast cancer screening uptake? A population-based study. *Eur J Public Health*. 2020;30(3):396-401. doi:10.1093/eurpub/ckz220

anxiolytics (OR 0.61) and antipsychotics (OR 0.63)⁷². The authors also noted that women prescribed psychotropic medication were significantly more likely to be older, divorced, separated or widowed and to be from a lower socio-economic background⁷³. Mead et al. identified that 17.4% of women invited for breast cancer screening had a medical reason for non-participation⁷⁴.

Woof et al. carried out interviews on a cohort of British-Pakistani women via translator which revealed that education was a major barrier to breast cancer screening. The women reported problems with language barriers, IT proficiency, literacy and difficulties understanding terms such as mammography and screening. In addition, there was concern about receiving information relating to risk via letter as there would be no one to ask questions to⁷⁵.

Cervical

Huf et al⁷⁶ performed a Randomised Control Trial (RCT) looking at the use of text reminders for cervical screening. They noted SMS delivery was 41.1% in the least deprived tertile (by IMD subgroup) and 33.1% in the most deprived tertile.

Several studies have conducted focus groups or interviews to identify common barriers. Themes identified include practical barriers around access and appointment times, negative previous experiences – including discomfort, and feelings of embarrassment and fear as well as a lack of knowledge and awareness around the cause of cervical cancer and the purpose of screening with a number of women not

⁷² Ross E, Maguire A, Mairs A, Hall C, Donnelly MJC, O'Reilly DPJ. Disparities in Breast Cancer Screening Uptake for Women With Mental Illness in the United Kingdom. *Am J Prev Med.* 2021;60(3):e123-e130. doi:10.1016/j.amepre.2020.09.010

⁷³ Gale CR, Deary IJ, Wardle J, Zaninotto P, Batty GD. Cognitive ability and personality as predictors of participation in a national colorectal cancer screening programme: the English Longitudinal Study of Ageing. *J Epidemiol Community Health.* 2015;69(6):530-535. doi:10.1136/jech-2014-204888

⁷⁴ Mead L, Porteous L, Tait M, et al. The prevalence of medical reasons for non-participation in the Scottish breast and bowel cancer screening programmes. *J Med Screen.* 2015;22(2):106-108. doi:10.1177/0969141315572173

⁷⁵ Woof VG, Ruane H, Ulph F, et al. Engagement barriers and service inequities in the NHS Breast Screening Programme: Views from British-Pakistani women. *J Med Screen.* 2020;27(3):130-137. doi:10.1177/0969141319887405

⁷⁶ Huf S, Kerrison RS, King D, et al. Behavioral economics informed message content in text message reminders to improve cervical screening participation: Two pragmatic randomized controlled trials. *Prev Med (Baltim).* 2020;139:106170. doi:10.1016/j.ypmed.2020.106170

knowing that cervical cancer was caused by a sexually transmitted virus^{77,78,79,80,81}. Additionally, an association was noted with women who had attended cervical screening being more likely to have daughters who had been vaccinated against HPV⁷⁷.

Marlow et al.⁸¹ performed a qualitative study looking specifically at ethnic minority women as they are a population known to have low rates of attendance to cervical cancer screening. A lack of awareness of cervical cancer and the screening programme in minority communities was raised. Explanations of the causality of HPV, a sexually transmitted virus brought up concerns about shame and the connotations of sexual relations outside of marriage⁸¹.

Wilding et al.⁷⁹ also attempted to identify facilitatory factors and found ease of making appointments, peace of mind and fear of cancer as positive motivators⁷⁹. Bennett et al. asked active decliners of cervical cancer screening whether they would perform home vaginal swabs with 66% affirming that they would⁸⁰. This poses a potential mechanism for the future to increase participation.

Discussion

There is a significant number of studies looking at interventions to increase the uptake of cancer screening in the UK however unfortunately due to differences in screening streams (bowel, breast, cervical) and a wide variety of interventions used we were unable to perform a meta-analysis on these.

Awareness of screening programmes and their purpose is variable as seen by various focus groups. Cancer screening is a topic that is covered by popular media outlets⁸². This is not regulated by the NHS and the effect of this on uptake is unknown but is potentially a stream that could be utilised to increase uptake.

⁷⁷ Spencer AM, Brabin L, Roberts SA, Patnick J, Elton P, Verma A. A qualitative study to assess the potential of the human papillomavirus vaccination programme to encourage under-screened mothers to attend for cervical screening. *J Fam Plan Reprod Heal care*. 2016;42(2):119-126.

doi:10.1136/jfprhc-2015-101283

⁷⁸ Sadler L, Albrow R, Shelton R, Kitchener H, Brabin L. Development of a pre-notification leaflet to encourage uptake of cervical screening at first invitation: a qualitative study. *Health Educ Res*. 2013;28(5):793-802. doi:10.1093/her/cys103

⁷⁹ Wilding S, Wighton S, Halligan D, West R, Conner M, O'Connor DB. What factors are most influential in increasing cervical cancer screening attendance? An online study of UK-based women. *Heal Psychol Behav Med*. 2020;8(1):314-328. doi:10.1080/21642850.2020.1798239

⁸⁰ Bennett KF, Waller J, Chorley AJ, Ferrer RA, Haddrell JB, Marlow LA. Barriers to cervical screening and interest in self-sampling among women who actively decline screening. *J Med Screen*. 2018;25(4):211-217. doi:10.1177/0969141318767471

⁸¹ Marlow LA V, Waller J, Wardle J. Barriers to cervical cancer screening among ethnic minority women: a qualitative study. *J Fam Plan Reprod Heal Care*. 2015;41(4):248-254. doi:10.1136/jfprhc-2014-101082

⁸² Silver K. Embarrassment makes women avoid smear tests, charity says. BBC News. <https://www.bbc.co.uk/news/health-42747892>. Published 2018.

Research from Australia has looked at a cohort of lesbian women to examine whether there were any barriers specific to this population. Four main themes were identified: exposure to friends with cervical cancer as a positive motivator, misconceptions relating to risk ie. 'I'm a lesbian so I don't need to test', it was requirement for some participants when undergoing IVF and that there was no lesbian specific education regarding smear tests at school⁸³. In the USA, Marrazzo et al. performed a study of 248 women who have sex with women (WSW) and found that 13% had HPV DNA in their genital tracts showing that this cohort can be affected by the causative agent for cervical cancer⁸⁴. Further to this 10% of the WSW had abnormal Pap smear results⁸⁴. Research from the UK on lesbian health behaviour reported that lesbians perceived themselves to be at lower risk of cervical cancer than heterosexual women⁸⁵. However, this literature review has not identified any targeted literature looking at lesbians' attitudes and uptake of cancer screening in the UK so further research should be carried out to look at the cohort.

COVID-19 has posed many challenges for society including cancer screening programmes many of which were paused or stopped as resources in particular drugs and anaesthetists for colonoscopy were redeployed⁸⁶. The impact that this has on the mortality of cancers remains to be seen.

Conclusion

This literature review has identified a number of barriers to which could be targeted by Hammersmith & Fulham to improve cancer screening uptake rates. Literature on interventions with a statistically significant improvement on attendance is scarcer and more studies need to be carried out to identify successful strategies. GP endorsement is a successful strategy that has already been put into place in the bowel cancer screening programme. Further effective studies are needed in order that changes can be made to national practice to increase uptake of cancer screening.

⁸³ Curmi C, Peters K, Salamonson Y. Lesbians' attitudes and practices of cervical cancer screening: a qualitative study. *BMC Womens Health*. 2014;14(1):2. doi:10.1186/s12905-014-0153-2

⁸⁴ Marrazzo JM, Koutsky LA, Kiviat NB, Kuypers JM, Stine K. Papanicolaou Test Screening and Prevalence of Genital Human Papillomavirus Among Women Who Have Sex With Women. *Vol 91.*; 2001.

⁸⁵ Fish J. Exploring Lesbians' Health Behaviours and Risk Perceptions.

https://www.researchgate.net/profile/Julie-Fish/publication/233669775_Exploring_lesbians%27_health_behaviours_and_risk_perceptions/links/5c0af9508ae9289a09b9a6c/Exploring-lesbians-health-behaviours-and-risk-perceptions.pdf

Accessed November 11, 2021.

⁸⁶ Halloran SP. Colorectal cancer screening and the COVID-19 pandemic – Lessons learnt. *Prev Med (Baltim)*. 2021;151:106539. doi:10.1016/j.yjmed.2021.106539

6. Identifying Recommendations

Recommendation 1

Support existing **workforce** delivering cancer screening, as well as expanding the workforce.

- The lack of sample takers, primary care nurses, radiographers and cancer screening staff as a whole should be reviewed in Hammersmith & Fulham.
- Create a family hub within Hammersmith & Fulham, and supplement the existing sample taker workforce with Genitourinary Medicine (GUM) workers, and junior trainees and registrars from Obstetrics and Gynaecology specialities, as well as providing Mobile and Hospital-based clinics.
- Investigate the outcomes of self-sampling cervical cancer screening trials and the effect that this will have on the workforce.
- Ensure that housebound patients are accommodated for, through either receiving self-sampling kits or being provided with free transport to attend a screening appointment

Recommendation 2

Improve the **convenience** of cancer screening appointments.

- Catch-up rounds of appointments should be offered to residents who have not attended their most recent cancer screening appointment and are overdue a screening examination.
- Provide the possibility of booking a cancer screening appointment via an online service should be offered.

Recommendation 3

Increase **awareness** surrounding the importance of regular cancer screening appointments.

- Awareness regarding the importance of cervical cancer screening and breast cancer screening appointments should be raised opportunistically at respective screening sessions.
- An increased awareness of human anatomy and the importance of receiving cancer screening should be taught in schools and made available before residents are eligible for cancer screening.
- Through community engagement, discussions tackling the stigma of receiving cervical cancer screening as well as abetting concerns regarding the pain of receiving cervical cancer screening should be implemented. Should draw on experience from previous cancer screening promotional events (Figure 24).
- Awareness of the importance of regular cancer screening, as well as the procedure surrounding it, should be raised using social media and SMS communication. A Facebook page could be set up to answer FAQs. It should also be ensured that any messaging is accessible, inclusive and tailored to various communities.

Figure 24: A promotional leaflet including information regarding a Cervical Screening Awareness Talk, at an Iftar Event 2022. This event was run by Mother & Child Welfare Organisation, a London based charity which provides support for vulnerable mothers and young people across London. Information was also available in Arabic and Somali.



**Join our
Community Iftar
Event**

 **Mother and Child
Welfare Organisation**
CREATING A BRIGHTER TOMORROW

Tuesday 26th April 2022
7:00 pm to 9:30 pm

**202 UXBRIDGE ROAD,
LONDON W12 7JP**

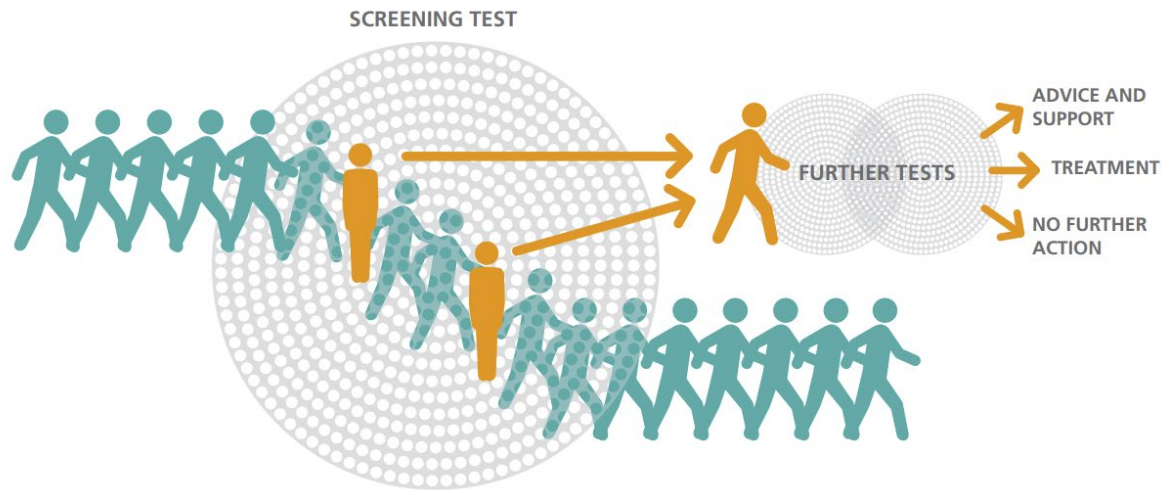
7:00 pm to 8:00pm:
CERVICAL SCREENING AWARENESS TALK

WWW.MACWO.UK | 202 UXBRIDGE ROAD, LONDON W12 7JP
EMAIL: INFO@MACWO.ORG | TEL: 07769 697279 OR 02080 503981

Appendices

Appendix 1

Figure A1. Process of screening



Source: UK National Screening Committee, 2019

Appendix 2

National Policy Context

The UK National Screening Committee (NSC) – with support from Public Health England (PHE) – advises the Department of Health and Social Care and NHS England on the implementation, continuation and modification of population screening programmes⁸⁷. NHS England and Improvement are responsible for commissioning screening services and implementing changes to screening programmes. The Screening Quality Assurance Service (SQAS) is responsible for assessing the quality of local screening programmes, monitor compliance with standards, support services with improving quality and also undertaking regional level quality assurance visits.

The 2015 Independent Cancer Taskforce report *Achieving World Class Cancer Outcomes 2015-2020* outlined the NHS England National Cancer Strategy⁸⁸. The report identified the centrality of screening to reduce incidence and improve outcomes for patients by diagnosing individuals in the early stages of cancer. The report led to the establishment of Cancer Alliances which aim to transform cancer pathways and improve the quality of local cancer services. Cancer Alliances are pivotal to accelerating access to diagnosis and improving screening programme participation in their local area. The 2015 report also outlined specific recommendations for each of the three national screening programmes.

The NHS Long Term Plan emphasised the importance of improving cancer outcomes and screening uptake, aiming to increase the proportion of cancers diagnosed at stages one and two from 50% to 75% of cancer patients by 2028⁸⁹. The Plan recommended modifying and extending cancer screening programmes to aid the achievement of this aim.

The Independent Review of Adult Screening Programmes⁹⁰ in England provided detailed targets for national screening programmes, including cancer screening. The review emphasised the importance of uptake (the proportion of individuals invited to screening who participate) and coverage (proportion of eligible population screening within a time frame) in achieving screening programme goals. Coverage and uptake are determined by several factors including: (i) acceptability; (ii) awareness; (iii) convenience; (iv) accessibility; and (v) reminders and endorsements⁹⁰.

Recommendation 13 in the review pertained to improving uptake and coverage, advocating to give priority to “spreading the implementation of evidence-based

⁸⁷ Richards, M. (2019) Report of the Independent Review of Adult Screening Programmes in England.

⁸⁸ Independent Cancer Taskforce (2015) *Achieving World-Class Cancer Outcomes: A strategy for England 2015-2020*.

⁸⁹ NHS (2019) *The NHS Long Term Plan*.

⁹⁰ Genomics Plc. (2019) *Independent Review of Adult Screening Programmes*

initiatives to increase uptake” through an integrated system approach. The review recommended this should include implementing text reminders for screening programmes, piloting social media campaigns, sharing best practice concerning physical and learning disabilities, encouraging links with faith and community leaders, increasing awareness of trans and gender diverse issues among screening professionals, and considering financial incentives for providers to promote appointments out of hours⁹⁰.

Bowel Cancer

NHS England commissions the Bowel Cancer Screening Programme which began in 2006. Bowel cancer screening is estimated to save around 2,400 lives per year in the UK⁹¹ and has been shown to reduce the risk of death from bowel cancer in the population invited to screening by 16%⁹².

The Bowel Cancer Screening Programme is delivered via screening centres nationwide which are linked to one of five programme hubs: Northern; Southern; Eastern; Midlands and North West; and London. Screening hubs support up to 18 screening centres which each have a geographic population of 500,000 to 2 million individuals⁹³.

Initially the NHS Bowel Cancer Screening Programme invites males and females aged between 60 and 69 years to complete the screening test every two years. The 2007 Cancer Reform Strategy announced the extension of the NHS Bowel Cancer Screening Programme to include individuals aged 70-74 from 2015⁹³.

Following a review of the NHS Bowel Cancer Screening Programme in 2011, the UK NSC recommended the inclusion of a one-off flexible sigmoidoscopy to be offered to men and women aged 55 to be incorporated in the NHS Bowel Cancer Screening Programme from 2013. In 2015, the UK NSC advised that the Faecal Immunochemical Test (FIT) should be used as an alternative to the Guaiac Faecal Occult Blood Test (gFOBT) to improve cost-effectiveness and uptake of screening. FIT is deemed more acceptable by patients than the gFOBT as the FIT does not require any dietary or medication restrictions before collecting the sample, whereas the gFOBT required patients to restrict diet and some medications before stool collection. Furthermore, FIT only requires a single collection of stool sample whereas gFOBT asks for three

⁹¹ Hewitson, P. et al. (2007) Screening for colorectal cancer using the faecal occult blood test, Hemoccult. Cochrane Database of Systematic Reviews. 2007(1).

⁹² Parkin, DM. (2008). Predicting the impact of the screening programme for colorectal cancer in the UK. *J Med Screen*. 2008;15(4):163-74.

⁹³ NHS England. NHS Public Health Function Agreement 2019-20. Service Specification no. 26: Bowel Cancer Screening Programme.

separate samples to be collected. The recommendation was accepted in 2018 and FIT testing was rolled out to individuals aged between 50 and 74 years⁹⁴.

The *Achieving World Class Cancer Outcomes 2015-2020* report focussed on expanding the use of FIT⁹⁵. Evidence indicated the ease with which the test can be completed at home by individuals and increased sensitivity of the FIT would improve uptake and enable a higher proportion of bowel cancers to be diagnosed at earlier stages⁹⁵.

The NHS Long Term Plan further emphasised the introduction of the FIT test in modernising the Bowel Cancer Screening Programme highlighting trials suggesting the test would improve take up rates by 7%, including in marginalised groups⁹⁶. The Long Term Plan also announced the lowering of the starting age for screening from 60 to 50 years.

In July 2020 the UK NSC recommended the discontinuation of bowel scope screening as evidence indicates bowel scope was did not provide additional benefits to FIT testing alone⁹⁷. The UK NSC instead recommended a renewed emphasis on expanding FIT Screening, which has since been accepted by ministers.

Breast Cancer

The NHS breast cancer screening programme started in 1988 following the recommendations of the Forrest Report 1986 and is delivered through 78 breast screening units across England⁹⁸. The programme – commissioned by NHS England – initially invited women aged between 50 and 64 years to screening appointments every three years⁹⁹. In 2000, the programme was extended to women aged up to 70 years old. Self-referral appointments are available for women aged over 70⁹⁹. The NHS breast cancer screening programme uses mammography radiography to detect abnormalities that may indicate the presence of cancer¹⁰⁰.

⁹⁴ NHS England. NHS Public Health Function Agreement 2019-20. Service Specification no. 26: Bowel Cancer Screening Programme.

⁹⁵ Independent Cancer Taskforce (2015) *Achieving World-Class Cancer Outcomes: A strategy for England 2015-2020*.

⁹⁶ NHS (2019) *The NHS Long Term Plan*.

⁹⁷ UK National Screening Committee (2020) *Recommendation to stop bowel scope screening in England*.

⁹⁸ NHS England. NHS public health function agreement 2019-20. Service specification no.24: NHS Breast Screening Programme.

⁹⁹ Richards, M. (2019) *Report of the Independent Review of Adult Screening Programmes in England*.

¹⁰⁰ NICE (2017) *The NHS Breast Screening Programme*.

Following the introduction of the NHS breast cancer screening programme in 1988, breast cancer incidence in the screened age group increased significantly due to increased diagnosis at early stages¹⁰¹. NICE estimates breast screening using mammography detects 30% of breast cancers and saves 1,300 lives per year in the UK¹⁰².

An ongoing cluster-randomised trial is currently investigating the benefits of extending the NHS breast cancer screening programme to individuals aged between 47 to 73 years. The results of the trial are expected to be concluded in the mid-2020s at which point a decision on the programme's extension will be made¹⁰².

The *Achieving World Class Cancer Outcomes 2015-2020* report did not identify a specific recommendation regarding breast cancer screening. However, the report did emphasise the need for further research to investigate the impact of an additional screening procedure – tomosynthesis – to improve the detection of breast cancer¹⁰³.

Cervical Cancer

The introduction of the NHS Cervical Screening Programme in 1988 led to cervical screening being commissioned by NHS England and delivered through GPs. In 2003, the age of first screening was raised from 20 to 25 years as evidence indicated screening was ineffective in preventing cancer during this age band¹⁰⁴. A meeting of the Independent Advisory Committee on Cervical Screening in 2009 confirmed this change would remain¹⁰⁵.

Initially the NHS Cervical Screening Programme used exfoliative cytology (or 'smear test') in screening to detect abnormal epithelial changes, however in 2006 the UK NSC recommended changing to liquid-based cytology. In 2015, the UK NSC recommended using human papilloma virus (HPV) as the primary test in the NHS Cervical Screening Programme¹⁰⁴. The recommendation was accepted by ministers in 2016.

The NHS Cervical Screening Programme is currently offered to women every three years between the ages of 25 and 49, with women being invited from up to six months

¹⁰¹ Quinn, M. and Allen, E. (1995) Changes in incidence of and mortality from breast cancer in England and Wales since the introduction of screening. *BMJ*. 1995;311:1191.

¹⁰² NICE (2017) *The NHS Breast Screening Programme*.

¹⁰³ Independent Cancer Taskforce (2015) *Achieving World-Class Cancer Outcomes: A strategy for England 2015-2020*.

¹⁰⁴ UK National Screening Committee (2019) *The UK NSC recommendation on Cervical Cancer screening in women*.

¹⁰⁵ Advisory Committee on Cervical Screening (2009) *Extraordinary meeting to re-examine current policy on cervical screening for women aged 20-24 years taking account of any new evidence and to make recommendations to the National Cancer Director and Ministers*.

prior to 25th birthday. The NHS Cervical Screening Programme offers screening to women aged 50 – 64 years every five years¹⁰⁶. Since the introduction of the Cervical Screening Programme, the number of women dying from cervical cancer has halved, and it is estimated the Cervical Screening Programme saves around 4,500 lives each year in England¹⁰⁷.

The NHS Long Term Plan and the *Achieving World Class Cancer Outcomes 2015-2020* report aimed for HPV primary screening for cervical cancer to be in place across England by 2020^{108,109}. The National Cancer Strategy also emphasised the importance of regularly reviewing the upper age limit for cervical screening.

The Royal College of Obstetricians and Gynaecologists (RCOG) published the *Better for Women* report which identified simple and cost-effective solutions to prevent women from falling through healthcare cracks¹¹⁰. The RCOG recommended that NHSE and local authorities deliver a joined-up approach regarding commissioning of cervical cancer screening, in order to end the fragmentation of services. The report also made several recommendations regarding preventing mortality from gynaecological cancers including;

- Increasing uptake in cervical screening amongst disadvantaged and marginalised women, through using every opportunity to encourage women to undergo cervical screening and reassure them about the benefits of screening and the realities of the procedure, as well raising awareness around the causes of cervical cancer and implementing HPV primary home-test screening.
- Increasing uptake in cervical screening by ending fragmentation and harnessing technologies
- Improving early diagnosis and treatment of gynaecological cancers, through prioritising campaigns targeting the public and healthcare professionals in primary care to increase awareness of gynaecological cancer symptoms.

The Independent Review of Adult Screening Programmes in England discussed pilots of HPV self-sampling in London introduced to increase participation among women

¹⁰⁶ Richards, M. (2019) Report of the Independent Review of Adult Screening Programmes in England.

¹⁰⁷ NICE (2020) The NHS Cervical Screening Programme.

¹⁰⁸ Independent Cancer Taskforce (2015) *Achieving World-Class Cancer Outcomes: A strategy for England 2015-2020*.

¹⁰⁹ NHS (2019) The NHS Long Term Plan.

¹¹⁰ Royal College of Obstetricians & Gynaecologists (2019) *Better for Women*.

who do not attend screening appointments¹¹¹. The success of this pilot is currently unknown but may increase participation in the future.

¹¹¹ Richards, M. (2019) Report of the Independent Review of Adult Screening Programmes in England.

Appendix 3

Table A3. Summary of indicators and associated thresholds

Programme	Indicator	Definition	Acceptable threshold	Achievable threshold
Bowel cancer screening programme	Coverage	The proportion of eligible men and women aged 60 to 74 invited for screening who had an adequate faecal occult blood test (FOBT) screening result in the previous 30 months.	-	-
	Uptake	The proportion of men and women aged 60 to 74 invited to participate in bowel cancer screening who adequately participate.	≥ 52.0%	≥ 60.0%
Breast screening programme	Coverage	The proportion of women eligible for screening who have had a test with a recorded result at least once in the previous 36 months.	≥ 70.0%	≥ 80.0%
	Uptake	The proportion of eligible women invited who attend for screening.	≥ 70.0%	≥ 80.0%
Cervical screening programme	Coverage under 50 years	The proportion of women in the resident population eligible for cervical screening aged 25 to 49 years at end of period reported who were screened adequately within the previous 3.5 years.	≥ 80.0%	-
	Coverage 50 years and above	The proportion of women in the resident population eligible for cervical screening aged 50 to 64 years at end of period reported who were screened adequately within the previous 5.5 years.	≥ 80.0%	-

Data source: Public Health England (2019) Bowel cancer screening programme standards: valid for data collected from 1 April 2018; Public Health England (2020) Breast screening programme standards: valid for data collected from 1 April 2017; Public Health England (2020) Cervical screening programme standards: valid for data collected from 1 April 2020.

Appendix 4

Table A4. List of general practices within each Primary Care Network in Hammersmith and Fulham Clinical Commissioning Group, 2021.

Babylon GP at Hand PCN

GP At Hand

The Medical Centre Dr Jefferies and Partners

Hammersmith and Fulham Central PCN

Ashchurch Surgery

Brook Green Surgery

Hammersmith Surgery

North Fulham Surgery

Sterndale Surgery

Hammersmith and Fulham Partnership PCN

Brook Green Medical Centre

North End Medical Centre

Park Medical Centre

Richford Gate Medical Centre

The Bush Doctors

North Hammersmith and Fulham PCN

Canberra Old Oak Surgery

Dr Canisius & Dr Hasan Parkview Cfh&w

Dr Rk Kukar Parkview Ctr For H&w

Dr Uppal & Partn Parkview Ctr For H&w

Hammersmith & Fulham Centres For Health

Shepherds Bush Medical Centre

The Medical Centre Dr Kukar

The New Surgery

The Surgery Dr Dasgupta & Partners

South Fulham PCN

Ashville Surgery

Cassidy Road Medical Centre

Fulham Cross Medical Centre

Salisbury Surgery

Sands End Health Clinic

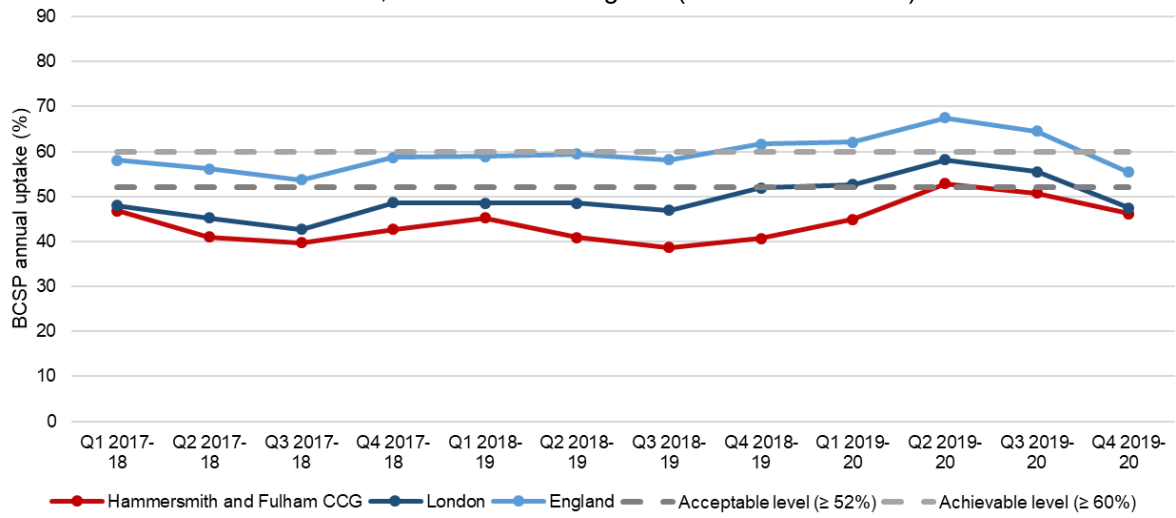
The Fulham Medical Centre

The Lilyville Surgery

The Surgery, Dr Mangwana & Partners

Appendix 5

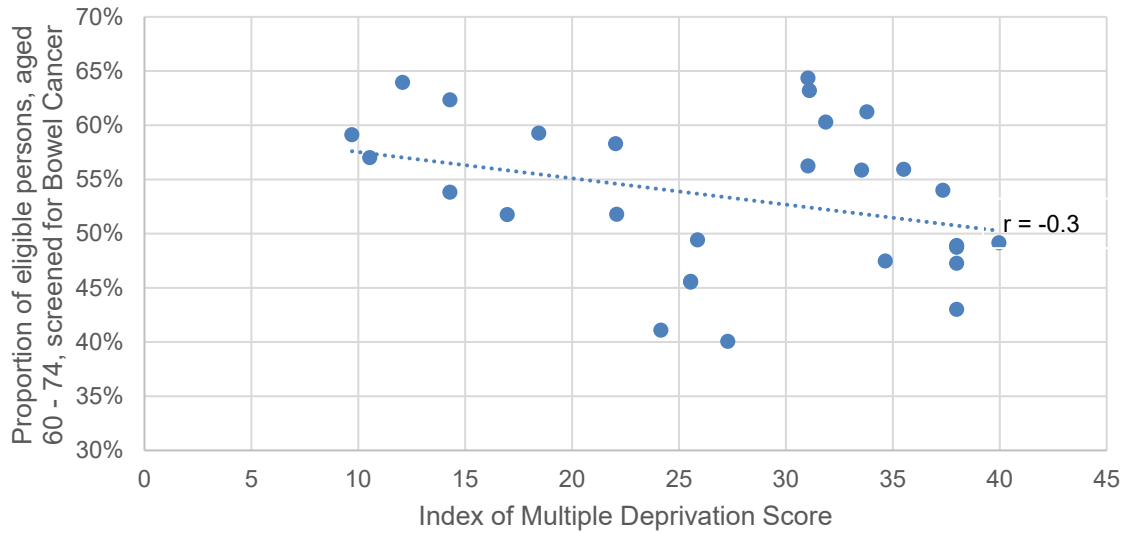
Figure A5: Quarterly bowel cancer screening programme uptake for individuals aged 60-74 in Hammersmith and Fulham CCG, London and in England (2017/18 – 2019/20).



Data source: Public Health England Screening 2021, Key Performance Indicator Data

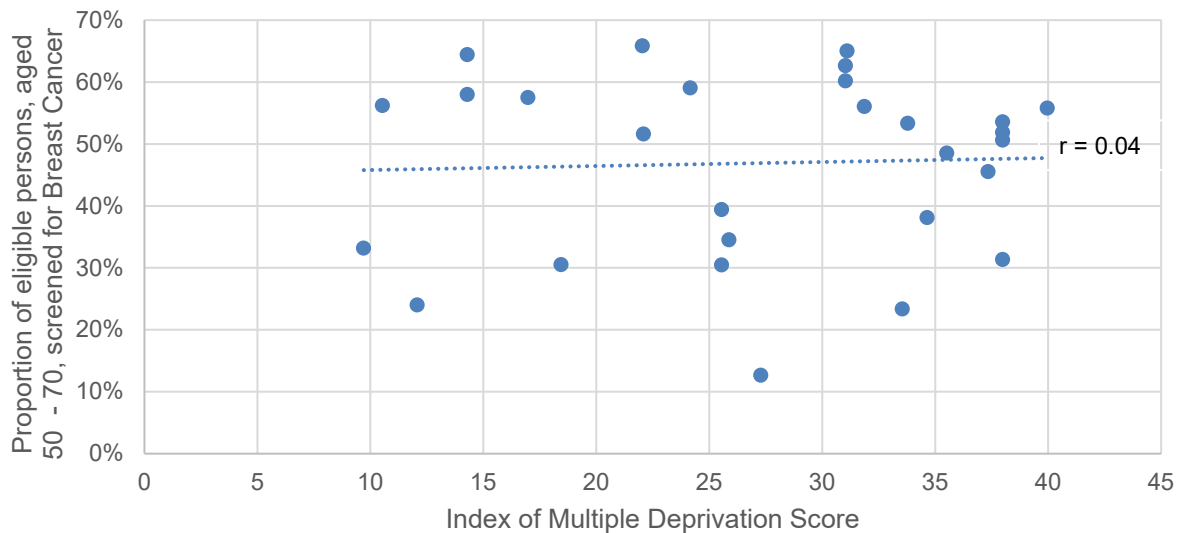
Appendix 6

Figure A6.1: Correlation and associated Pearson's correlation coefficient between Index of Multiple Deprivation score (2019) and Bowel Cancer Screening Programme uptake in 2020-21 for each GP practice



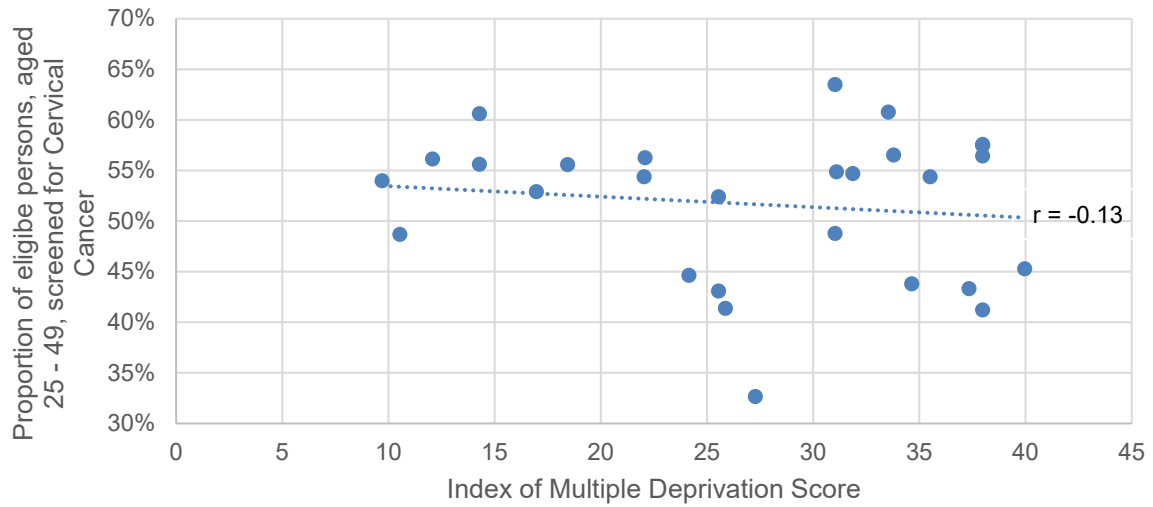
Data source: Public Health England, Cancer Services 2021.

Figure A6.2: Correlation and associated Pearson's correlation coefficient between Index of Multiple Deprivation score (2019) and Breast Screening uptake in 2019-20 for each GP practice



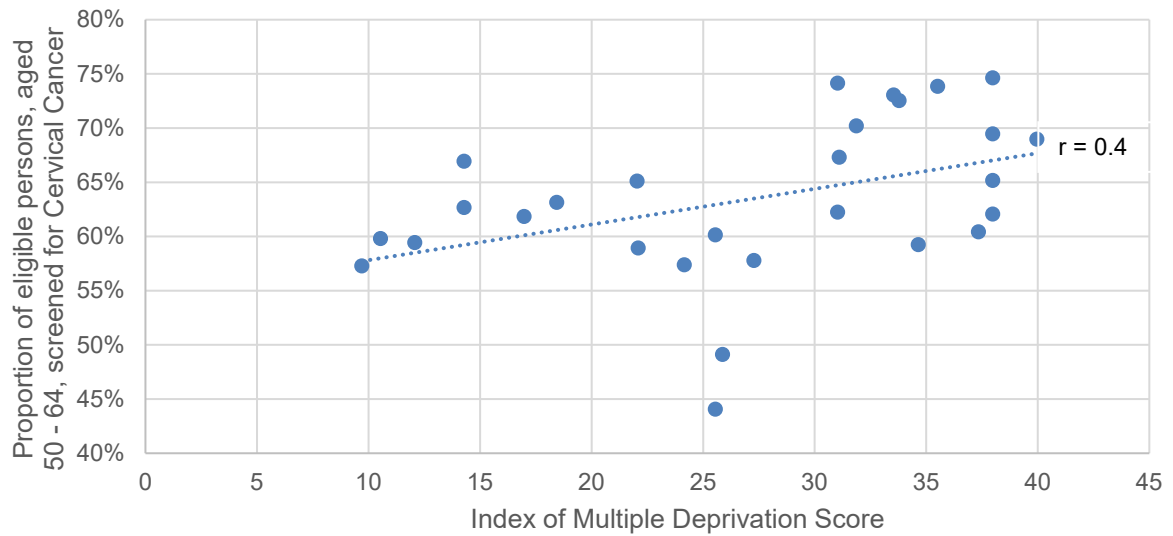
Data source: Public Health England, Cancer Services 2021.

Figure A6.3: Correlation and associated Pearson's correlation coefficient between Index of Multiple Deprivation score (2019) and cervical screening programme uptake among persons aged 25 - 49 for each GP practice.



Data source: Public Health England, Cancer Services 2021.

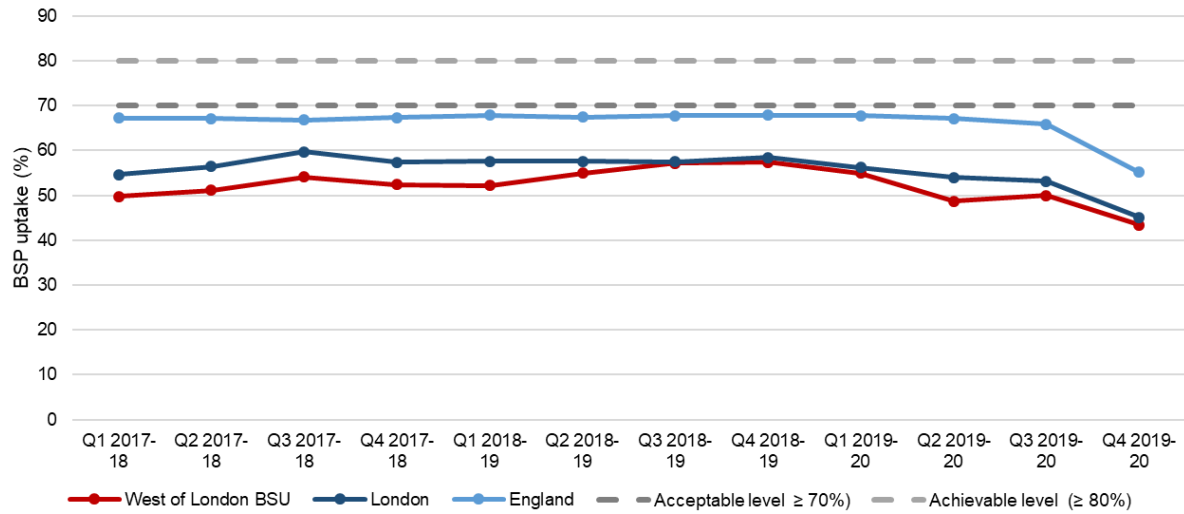
Figure A6.4: Correlation and associated Pearson's correlation coefficient between Index of Multiple Deprivation score (2019) and cervical screening programme uptake among persons aged 50 - 64 for each GP practice.



Data source: Public Health England, Cancer Services 2021.

Appendix 7

Figure A7: Quarterly breast screening programme uptake for individuals aged 50-70 in the West of London Breast Screening Units*, London and in England (2017-18 – 2019-20).



* Quarterly data unavailable at CCG level for the Breast Screening Programme. West of London Breast Screening Units includes Hammersmith and Fulham CCG.

Data source: Public Health England Screening 2021, Key Performance Indicator Data

Appendix 8

Study selection

This literature review aims to address two key research questions: 1. What are the primary barriers to cancer screening uptake in Hammersmith & Fulham? 2. What is being done to tackle barriers to cancer screening uptake? A comprehensive literature search was performed on PubMed and MEDLINE to identify articles discussing barriers to cancer screening participation and interventions to combat them. Studies were selected based on the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines¹¹².

Search terms included: ('cancer screening programme' OR 'bowel screening programme' OR 'breast screening programme' OR 'cervical screening programme') AND ('UK' OR 'United Kingdom' OR 'NHS' OR 'National Health Service') AND ('bowel cancer' OR 'colon cancer' OR 'FIT' OR 'faecal immunochemical test' OR 'breast cancer' OR 'mammogram' OR 'mammography' OR 'cervical cancer' OR 'cervical dyskaryosis' OR 'smear' OR 'smear test') AND ('barriers' OR 'uptake' OR 'coverage' OR 'attendance' OR 'participation').

A summary of the search terms used can be found in Table 1.

Table 1: Summary of Search terms used for the literature review.

Search terms	
Cancer screening AND	'cancer screening programme' OR 'bowel screening programme' OR 'breast screening programme' OR 'cervical screening programme'
United Kingdom AND	'UK' OR 'United Kingdom' OR 'NHS' OR 'National Health Service'
Cancer AND	bowel cancer' OR 'colon cancer' OR 'FIT' OR 'faecal immunochemical test' OR 'breast cancer' OR 'mammogram' OR 'mammography' OR 'cervical cancer' OR 'cervical dyskaryosis' OR 'smear' OR 'smear test'
Barrier	barriers' OR 'uptake' OR 'coverage' OR 'attendance' OR 'participation'

The inclusion and exclusion criteria used can be found in Table 2 below.

¹¹² M. Page, J. McKenzie and P. Bossuyt, (2021) "The PRISMA 2020 statement: an updated guideline for reporting systematic reviews," *BMJ*, vol. 71, p. 372.

Table 2: Inclusion and exclusion criteria of scientific papers for the literature review.

Inclusion criteria	Exclusion criteria
Date range: Jan 2009 to April 2021	Studies published before Jan 2009
Cancer screening in the UK	Cancer screening outside the UK
Asymptomatic, healthy population	Data on colonoscopy, flexible sigmoidoscopy
Primary data focusing on bowel, breast and cervical screening programmes	Other languages
Outcome of data: 1. identifying a barrier to cancer screening participation, 2. Establishment of an intervention to tackle a barrier to low cancer screening participation	

*Data on colonoscopy and flexible sigmoidoscopy were excluded due to them being decommissioned from the cancer screening programme.

Information extraction

All studies retrieved through the search terms were screened and consequently selected based on the inclusion and exclusion criteria described in Table 2. The final compilation of studies were thoroughly examined to extract the key themes within each.