

NHS Health Checks Evaluation

Evaluation of the East Sussex NHS Health Checks programme across General Practices and One You East Sussex

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Contents

Definitions and Abbreviations	9
Foreword	13
Executive Summary	14
Acknowledgements	16
Ethical Considerations	17
Version Control	18
1. An Introduction to the East Sussex NHS Health Check Programme Evaluation	20
1.1 What is an NHS Health Check?	20
1.2 What does each commissioned body do?	21
1.3 NHS Health Checks commissioning	22
2. Aims, Objectives, and Outcomes of the Evaluation	24
2.1 Aims.....	24
2.2 Objectives	24
2.3 Outcome	25
3. Methodology	25
3.1 NHS Health Checks data	25
3.2 Quantitative Data Methodology.....	25
3.3 Qualitative Data Methodology	30
4. Literature Review: Implementation and Equitable Delivery of NHS Health Checks..	35
4.1 Review of NHS Health Check Effectiveness	35
4.2 Review of Variation in NHS Health Check Delivery and Quality	36
4.3 Review of Population Targeted NHS Health Checks	37
4.4 Review of Approaches to Increase Uptake of NHS Health Checks.....	39
4.5 Literature Review Summary	40
5. How effective is the East Sussex delivery models at identifying and following up on behavioural and clinical risk factors?.....	42
5.1 Behavioural Risk Factors	42
5.2 Clinical Risk Factors	43
6. How equitable is the NHS Health Check Programme?.....	52
6.1 Targeted Patient Invitation Uptake	52
6.2 Uptake in Target Populations.....	53
6.3 Do target population groups have worse CVD outcomes?.....	55
6.4 Health Equity Audit.....	55
6.5 Summary	87

7. How economically effective is the NHS Health Check programme?	89
7.1 Ready Reckoner Costings	89
7.2 Ready Reckoner Outcomes	91
7.3 Return on Investment	93
7.4 Benefit-Cost Ratio	93
8. What are the professional perceptions of the programme?	96
8.1 Introduction	96
8.2 The Survey	96
9. Discussion.....	118
10. Considerations and Limitations	131
Recommendations	134
Bibliography	139
Appendix A: PHLSC Tariffs	143
Appendix B: Clinical Diagnosis Rates.....	144

Tables

Table 1: Definitions.....	12
Table 2: Version Control	19
Table 3: Measurement Threshold for Clinical Risk Factors	26
Table 4: Calculations for Clinical Follow-Up Pathway	27
Table 5: TRIP Database Search.....	32
Table 6: PubMed Database Search	33
Table 7: Prevalence of Irregular Pulse and Atrial Fibrillation	47
Table 8: Chronic Kidney Disease Prevalence.....	52
Table 9: Invitation Uptake by Cohort	53
Table 10: Number of NHS Health Checks Attended by Cohort	54
Table 11: Number of Invites to Equitably Targeted Cohorts.....	54
Table 12: Disease prevalence by groups, including uptake figures by group, 2022-24.	55
Table 15: Ready Reckoner Estimations	92
Table 16: Projected Financial Trajectory	93
Table 17: PHLSA 2021/25 Tariffs.....	143
Table 18: PHLSA 2025/26 Tariffs.....	144

Figures

Figure 1: East Sussex NHS Health Check Risk Assessment Pathway 2025	21
Figure 2: Prevalence of Behavioural Risk Factors in GP delivered NHS Health Checks.....	42
Figure 3: Prevalence of Clinical Risk Factors within GP and OYES delivered NHS Health Checks.....	44
Figure 4: Prevalence HbA1c, NDH and Diabetes Identification	44
Figure 5: Diagnosis of NDH or diabetes following an NHS Health Check.....	45
Figure 6: Hypertension diagnosis and follow-up	46
Figure 7: QRISK 10-20	48
Figure 8: QRISK 20+	49
Figure 9: QRISK and Statin Outcomes.....	50
Figure 11: Behavioural Risk Factors by Ethnicity	56

Figure 12: Behavioural Risk Factors by IMD	57
Figure 13: Prevalence of BMI 25+ by IMD	58
Figure 14: Behavioural Risk Factors by Age	59
Figure 15: Behavioural Risk Factors by Gender	60
Figure 16: Prevalence of Statin Prescription and Declines by Sex - High Cholesterol	61
Figure 17: Statin Prescription and Declines by Age - High Cholesterol	62
Figure 18: Statin Prescription and Declines by IMD - High Cholesterol	63
Figure 19: Statin Prescription and Declines by Ethnicity - High Cholesterol	64
Figure 20: Statin Prescription and Declines by Sex - QRISK 10-20	65
Figure 21: Statin Prescription and Declines by Age - QRISK 10-20	66
Figure 22: Statin Prescription and Declines by IMD Areas - QRISK 10-20	67
Figure 23: Statin Prescription and Declines by Ethnicity - QRISK 10-20	68
Figure 24: Statin Prescription and Declines by Sex - QRISK 20+	69
Figure 25: Statin Prescription and Declines by Age - QRISK 20+	70
Figure 26: Statin Prescription and Declines by IMD - QRISK 20+	71
Figure 27: Statin Prescription and Declines by Ethnicity - QRISK 20+	72
Figure 28: High Blood Pressure: Diagnosis, Follow-up, and Prescription by sex	73
Figure 29: High Blood Pressure: Diagnosis, Follow-up, and Prescription by Age	74
Figure 30: High Blood Pressure: Diagnosis, Follow-up, and Prescription by IMD	75
Figure 31: High Blood Pressure: Diagnosis, Follow-up, and Prescription by Ethnicity	76
Figure 32: CKD by Sex	77
Figure 33: High HbA1c: Diagnosis, Follow-up, and Prescription by Sex	78
Figure 34: High HbA1c: Diagnosis, Follow-up, and Prescription by Age	79
Figure 35: High HbA1c: Diagnosis, Follow-up, and Prescription by IMD	80
Figure 36: High HbA1c: Diagnosis, Follow-up, and Prescription by Ethnicity	81
Figure 37: Very High HbA1c: Diagnosis, Follow-up, and Prescription by Sex	82
Figure 38: Very High HbA1c: Diagnosis, Follow-up, and Prescription by Age	83
Figure 39: Very High HbA1c: Diagnosis, Follow-up, and Prescription by IMD	84
Figure 40: Very High HbA1c by Ethnicity	85
Figure 41: Very High HbA1c: Diagnosis, Follow-up, and Prescription by Ethnicity	86

Figure 42: Irregular Pulse: Diagnosis, Follow-up, and Prescription by Sex.....	87
Figure 43: East Sussex Ready Reckoner Results	91
Figure 44: Distribution of job roles among respondents to Question 1	97
Figure 45: how long have you been a practitioner?	97
Figure 46: How often do you deliver NHS Health Checks in your role?	98
Figure 47: How many people deliver NHS Health Checks at place of work	98
Figure 48: How often does your place of work run NHS health check clinics?.....	99
Figure 49: How does the GP surgery you work at invite patients for their NHS Health check?	100
Figure 50: How patients from target demographic are invited?	100
Figure 51: What NHS health check training have you had in the last 5 years?	101
Figure 52: When did you last do refresher training?	102
Figure 53: Have you accessed training via the NHS Health Checks Training hub?	102
Figure 54: Understanding the purpose of an NHS check	103
Figure 55:Understanding and explaining the cardiovascular risk score.....	103
Figure 56: Explaining the results to the patients	104
Figure 57: Answering patient questions about their results.....	104
Figure 58: Understanding the importance of cardiovascular disease prevention.	105
Figure 59: On average, how much time are you given to deliver an NHS health check appointment?.....	106
Figure 60: Do you feel you have enough time to provide a good quality NHS health check?107	107
Figure 61: I have the knowledge and skills to have behaviour change conversations.	107
Figure 62: I am confident in having behaviour change conversations.	108
Figure 63: Talking about smoking cessation	108
Figure 64: Talking about weight management.	109
Figure 65: Talking about alcohol consumption.	109
Figure 66: Talking about physical activity	110
Figure 67: Confidence referring people to services for support with healthy lifestyle changes	110
Figure 68: In your experience how long does it take for a patient to attend a follow-up appointment with their GP if they need one after their NHS Health check?	111

Figure 69: Please share any other thoughts or comments you have about the NHS health check programme in East Sussex 115

Figure 10: Clinical Diagnosis Rates 144

Equations

Equation 1: Risk Factors 25

Equation 2: Benefit-Cost Ratio Formula 94

Equation 3: East Sussex NHS Health Check Program BCR 94

Definitions and Abbreviations

AUDIT-C	Alcohol Use Disorders Identification Test Consumption. A brief alcohol screening tool that is used to identify hazardous drinking, and if individuals have an active alcohol use disorder. AUDIT-C scores are ranked 0-20+, with 0-7 indicating low risk, 8-15 increasing risk, 16-19 higher risk, and 20+ indicating dependence.
BMI	Body Mass Index. A measure that uses a person's weight and height to estimate body fat. It is calculated by dividing weight in kilograms by height in metres squared (kg/m^2). A BMI of 30 or above is classified as obese.
CGL	Change Grow Live (Drugs and Alcohol Specialist Service)
CKD	Chronic Kidney Disease. A long-term condition where the kidneys do not work as well as they should. CKD is usually progressive and can lead to kidney failure. It is commonly identified through reduced glomerular filtration rate (GFR) and/or signs of kidney damage such as protein in the urine.
CVD	Cardiovascular Disease
Diastolic	The bottom number in a blood pressure reading; it measures pressure when the heart rests between beats.
EM	Ethnic minority groups are populations that identify with a racial, cultural, or national heritage different from the majority population in a given society. In the UK, this typically refers to individuals who do not identify as White British, including but not limited to Black, Asian, Mixed, and other ethnic backgrounds.
EQC	External Quality Control. Independent testing used to assess the accuracy and reliability of equipment and results by comparing them against national or standardised benchmarks, usually conducted by external bodies.
ESHT	East Sussex Healthcare NHS Trust, provides hospital and community health services in East Sussex.

FH	Familial hypercholesterolemia. A condition that causes high levels of low-density lipoprotein (LDL) significantly increasing the risk of early cardiovascular disease. FH is often underdiagnosed and can be managed with lifestyle changes and medication.
GPPAQ	General Practice Physical Activity Questionnaire. A screening tool used in primary care to assess the physical activity of adults, providing a 4-level physical activity index (active, moderately active, moderately inactive, and inactive).
GPPAS	GP Payment and Audit System Searches. East Sussex County Council NHS Health Checks templates and data collection and payment system.
HbA1c	Haemoglobin A1c. A blood test that measures the average amount of glucose in your blood over the past 90 days. High HbA1c readings are those between 42 - 47 mmol/mol, and very high HbA1c are readings ≥ 48 mmol/mol.
HBP	High blood pressure - a blood pressure reading of $\geq 140/90$ mmHg. Or a systolic blood pressure reading of ≥ 140 mmHg, or a diastolic blood pressure reading of ≥ 90 mmHg.
HDL	Known as “good” cholesterol. HDL helps remove excess cholesterol from the bloodstream and transport it to the liver for excretion. Higher levels are generally protective against cardiovascular disease.
High Cholesterol	A condition where the total cholesterol level in the blood is 7.5 mmol/L or higher. This level is considered elevated and may increase the risk of cardiovascular disease. It may prompt further assessment or treatment depending on individual risk factors.
ICB	Integrated Care Board, NHS organisations responsible for planning and funding health services across a local area.
IMD	Index of Multiple Deprivation. A measure used in the UK to assess relative deprivation across small geographic areas. It combines data across seven domains including income, employment,

education, health, crime, housing, and environment to rank areas from most to least deprived.

IQC	Internal Quality Control. A process used within testing environments (e.g., Point of Care Testing) to ensure testing equipment and procedures are producing accurate and reliable results. It involves regular checks using known control materials.
LD	Learning disability. A reduced ability and difficulty with everyday activities, such as household tasks, socialising, or managing money. It differs from a learning difficulty (e.g., dyslexia) and is a recognised disability under the Equality Act.
LDL	Often referred to as “bad” cholesterol. High levels of LDL can lead to a build-up of cholesterol in the arteries, increasing the risk of heart disease and stroke.
mmHg	Millimetres of mercury - A unit of pressure used to measure blood pressure
mmol/mol	Millimoles per mole, a unit used to report HbA1c levels, which reflect average blood glucose over 2-3 months.
NDH	Non-diabetic hyperglycaemia. A state where blood glucose levels are higher than normal but not high enough for a diagnosis of type 2 diabetes. It indicates increased risk of developing diabetes and is sometimes referred to as ‘pre-diabetes.’
OHID	Office for Health Improvement and Disparities, a UK government agency responsible for leading efforts to improve public health and reduce health inequalities by supporting local authorities, the NHS, and partners through data, guidance, and public health initiatives.
OYES	One You East Sussex (Behaviour Change Support: Third Party Provider)

PHLSA	Public Health Local Service Agreement, a local contract between Public Health and GP practices for delivering services like NHS Health Checks.
POCT	Point of Care Testing Equipment. Medical devices used to conduct diagnostic tests at or near the site of patient care, such as in GP surgeries or community settings. Examples include devices for testing blood glucose, cholesterol, and HbA1c levels.
QRISK	Algorithm used to identify an individual's risk of developing CVD over the next 10 years. The higher the score, the higher the likelihood of the individual developing a heart attack or stroke over the next 10 years.
SMI	Severe mental illness. A group of mental health conditions that are often long-term and significantly impact a person's daily functioning. It includes diagnoses such as schizophrenia, bipolar disorder, and severe depression.
SMT	Senior Management Team a group of senior leaders responsible for strategic decision-making within an organisation.
Systolic	The top number in a blood pressure reading; it measures pressure when the heart beats.
TEP	Total eligible population. The total number of individuals within a defined area or group who meet the specific criteria to be invited for a programme or intervention, such as the NHS Health Check (typically aged 40-74 without pre-existing conditions).
Triglycerides	A type of fat (lipid) found in the blood. The body converts excess calories into triglycerides for storage. High levels are associated with increased risk of heart disease, especially when combined with low HDL or high LDL.
Rx	Prescription

Table 1: Definitions

Foreword

Darrell Gale, Director of Public Health, East Sussex

Persistent health inequalities and increasing demand on health and care services continue to shape the need for effective prevention and early detection in East Sussex. The NHS Health Check programme supports this preventative approach by identifying individuals at increased risk of cardiovascular disease and enabling timely intervention, particularly for those living in more deprived communities. While the programme is nationally mandated, uncertainty has remained regarding the strength of the underpinning evidence base, making it essential, in a context of constrained resources, to understand the local impact and value of NHS Health Checks in East Sussex.

Cardiovascular disease remains one of the leading causes of premature mortality across Europe including the United Kingdom. According to [new data on noncommunicable diseases by the WHO as part of the Europe report](#); “*1 in 5 men and 1 in 10 women die before the age of 70 to non-communicable diseases such as; cardiovascular disease, cancers, chronic respiratory disease and diabetes*”¹. We also know that in East Sussex specifically, cardiovascular disease is the second highest cause for premature death for those under 75 years of age as recorded by the [Department of Health and Social Care](#).

These challenges are unfolding at a time of significant structural change within the healthcare system. The publication of the NHS Long Term Plan, the evolving role of Integrated Care Systems, and changes within local authorities and primary care create both opportunities and complexities for prevention. At the same time, the cost-of-living crisis is deepening health inequalities and magnifying the impact of wider determinants such as housing, employment, income, access to services, and social isolation.

In this context, the findings of this report reflect the power of collaboration across general practice, community providers, and those key stakeholders as part of our healthcare systems. Open dialogue, joint working, and a shared commitment to improving outcomes have enabled the NHS Health Check programme to extend its reach, diversify delivery models, and better target communities most affected by health inequalities. Crucially, the programme is not only delivering checks it is also building pathways to healthcare and providing agency to people to take control of their health.

While progress is encouraging, there is still more to do. Strengthening follow-up for both clinical and behavioural risk factors, alongside improving data integration, will be critical to maximising impact. Prevention must not only remain a guiding principle but also become a consistent practice, embedded in every contact and conversation across the system.

I would like to thank everyone involved in this work from analysts and practitioners to clinicians and community partners for their continued dedication to population health and equity. Through this collective effort, we can ensure that prevention remains a priority, systems are better connected, and every resident in East Sussex has the opportunity to live a longer and healthier life.

Executive Summary

This evaluation provides a comprehensive assessment of the East Sussex NHS Health Check programme, examining its clinical, behavioural, economic, and equity related outcomes. Using a mixed methods approach, the evaluation draws on quantitative analysis of over 27,000 NHS Health Checks conducted between 2018 to 2019 and 2022 to 2024, complemented by qualitative insights from a provider survey and an economic analysis using the national Ready Reckoner tool.

Across both GP led and community-based delivery models, the programme consistently identifies individuals with high blood pressure, elevated cholesterol, diabetes risk, and other key cardiovascular risk factors. It supports early diagnosis of chronic conditions, including hypertension, non-diabetic hyperglycaemia, and diabetes, enabling timely intervention and improved patient outcomes. However, consistent with national evidence, the evaluation identifies variation in delivery and follow up between providers and delivery models, a finding also reflected locally.

The evaluation demonstrates that equitably targeted delivery is reaching higher risk populations, including individuals living in areas of deprivation, ethnic minority groups, and people with severe mental illness or learning disabilities.

Economic modelling indicates that NHS Health Checks are highly cost effective, with a cost per QALY of £1,753, well below NICE thresholds, and a projected benefit cost ratio of 1.09 by year 20. Over two decades, the programme is estimated to deliver net savings of £238,000 by year 20, underlining its long-term value to the health system.

Provider feedback confirms the programme's contribution to early detection, patient reassurance, and health promotion. Respondents also identified areas for improvement, including enhanced training, improved digital infrastructure for data capture, and more consistent arrangements for follow up management.

Key recommendations focus on:

- Strengthening clinical follow up and continuity of care.
- Improving data integration to allow clearer comparisons between delivery models.
- Expanding targeted outreach to engage underrepresented populations.
- Refining economic models to better reflect local delivery costs and context.
- Continuing to progress a hybrid delivery model that combines the reach of community providers with the continuity of GP led care to maximise health impact and reduce inequalities.

While this evaluation provides robust insight into primary and community delivery of NHS Health Checks, it did not examine follow-up activity delivered by secondary care providers.

Further research is therefore warranted to better understand downstream pathways, referral outcomes, and longer-term impacts across the wider system.

This evaluation reinforces the importance of continued investment in NHS Health Checks. Strategic enhancements, informed by local evidence and provider insights, are essential to ensure equitable access, consistent follow up, and sustained population health improvement across East Sussex.

Acknowledgements

We would like to extend our sincere thanks to all those who contributed to the development and delivery of this evaluation.

Special thanks go to the Office for Health Improvement and Disparities for their continued commitment to reducing preventable cardiovascular disease through the NHS Health Check programme, and for providing the Ready Reckoner tool which supported our economic analysis.

We are grateful to the GP practices and One You East Sussex for their dedication to delivering NHS Health Checks across East Sussex, and for their valuable input into the evaluation process. Their frontline experience and insights have been instrumental in shaping our understanding of the programme's strengths and areas for improvement.

We also acknowledge the contributions of our colleagues across East Sussex County Council, including Public Health Intelligence and Commissioning, whose expertise in data analysis, service design, and stakeholder engagement have underpinned the robustness of this evaluation.

Finally, we thank the NHS Health Check practitioners who took the time to complete the provider survey. Their feedback has provided essential context to the quantitative findings and helped identify practical recommendations for future service development.

Together, these contributions reflect a shared commitment to improving population health, reducing inequalities, and ensuring that every resident in East Sussex has access to effective and equitable preventative care.

Ethical Considerations

According to the NHS Health Research Authority guidelines, this evaluation does not constitute research as it is a service audit. Service audits are designed to evaluate and improve the quality of care provided, rather than generating new, generalisable knowledge. As such, this project does not require formal ethical approval from the NHS Research Ethics Committee.

This evaluation has adhered to ethical guidelines set by the British Psychological Society, upholding principles of respect, integrity, responsibility, and competence. Stakeholder feedback was obtained with informed consent and anonymised as necessary for confidentiality. The evaluation process has been designed to avoid bias and harm, and the findings have been presented honestly and transparently to reflect the actual impact and progression of the NHS Health Check Programme.

As Public Health professionals, we are responsible for commissioning the NHS Health Check programme across both primary care and community settings in East Sussex. While we do not deliver the service directly, we hold a strategic, population-level role, focused on improving health outcomes, reducing inequalities, and ensuring the programme is delivered effectively and equitably.

Under the Health and Social Care Act 2012, local authorities have a statutory duty to make provisions to offer an NHS Health Checks for all eligible individuals aged 40-74 years, every five years. This includes how, where, and by whom these NHS Health Checks are delivered, enabling flexibility to meet local needs and address barriers to access.

Our role includes ensuring that commissioned services deliver value for money, contribute to reducing the burden of cardiovascular disease, and are equitably accessed by the local population. This evaluation is grounded in our responsibility to monitor the clinical, behavioural, and economic impact of the programme, and to support evidence-informed improvements in service delivery.

Version Control

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8	15/12/2025	Thomas Gollins-Perronne	Seventh Draft
8.1	09/01/2026	Rob Tolfree	Under Review
8.2	16/01/2026	Thomas Gollins-Perronne	Final Draft
9	19/01/2026	Approved	

Table 2: Version Control

1. An Introduction to the East Sussex NHS Health Check Programme Evaluation

The evaluation of the NHS Health Check programme takes an ontological perspective to guide our understanding of what constitutes the programme and its outcomes such as the clinical indicators, behavioural changes, and equitable access to support and treatment. Epistemologically, this evaluation draws on both quantitative data, such as uptake rates and follow-up actions, and qualitative insights from staff experiences to generate a comprehensive understanding of programme effectiveness. Together, the ontology and epistemology approach underpin the methodology of this evaluation, ensuring that both what is being measured and how knowledge is derived are explicitly considered and aligned with the programme's objectives.

1.1 What is an NHS Health Check?

The NHS Health Check is a nationally mandated preventive programme which identifies and reduces the risk of cardiovascular disease (CVD) and associated conditions among adults aged 40 to 74 who do not have a pre-existing condition and is offered once every five years and includes the following key components:

Measurement of clinical risk factors, including:

- Blood pressure
- Cholesterol
- Body Mass Index
- HbA1c
- Atrial Fibrillation
- Chronic Kidney Disease

Assessment of behavioural risk factors, such as:

- Alcohol consumption
- Smoking status
- Physical activity
- Dietary habits

A personalised CVD risk score using QRISK2 or QRISK3, estimates the individual's 10-year risk of developing CVD, considering both clinical and behavioural risk factors, as well as age, sex, ethnicity, family history, and deprivation.

NHS Health Check also involves an initial behaviour change conversation as well as onward referral to appropriate third-party support services, including:

- Smoking cessation (OYES ⁽¹⁾)

- Weight management (OYES ⁽²⁾)
- Alcohol support services (OYES ⁽³⁾ or CGL ⁽⁴⁾)
- Health and Wellbeing Coaching (OYES ⁽⁵⁾)
- NHS Diabetes Prevention Programme ⁽⁶⁾

The overall aim is to identify modifiable risk factors early, whether clinical or behavioural and to support individuals in reducing their risk of preventable disease, improving health outcomes, and reducing premature mortality.

NHS Health Check Risk Assessment Pathway 2025

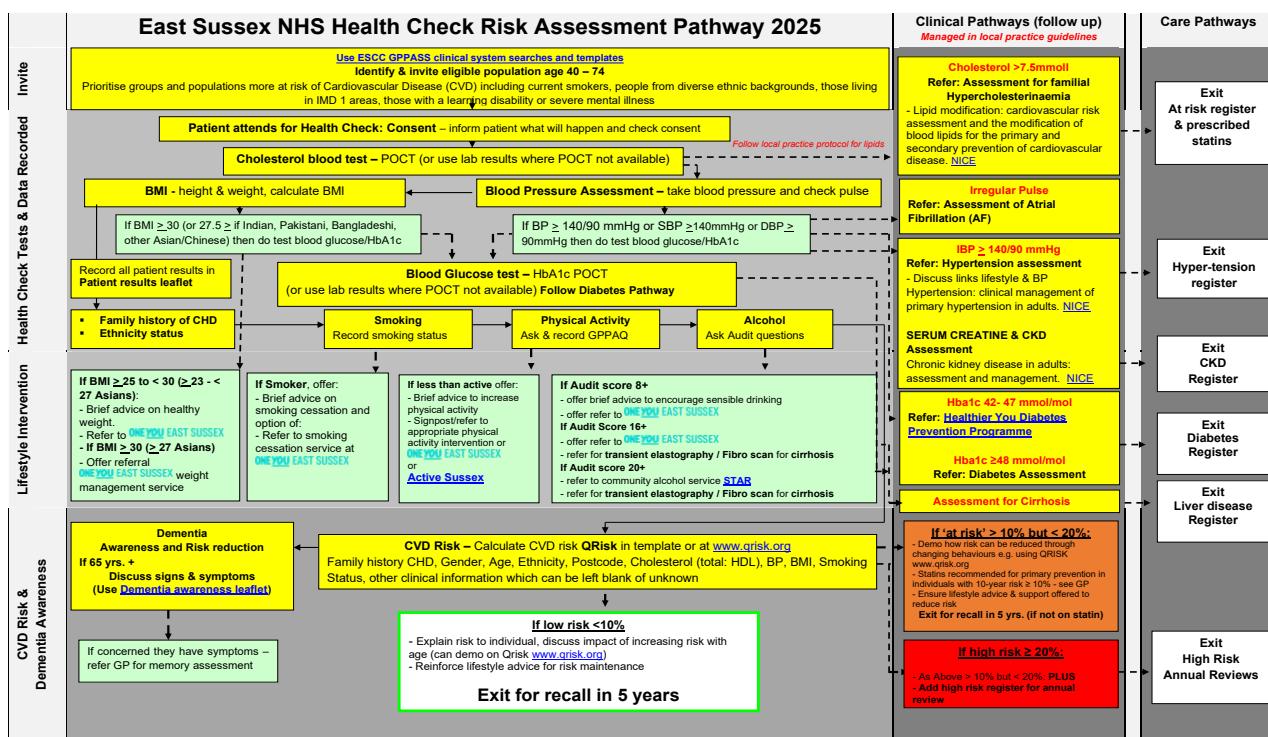


Figure 1: East Sussex NHS Health Check Risk Assessment Pathway 2025

1.2 What does each commissioned body do?

General Practice:

For those signed up to the PHLSCA ⁽⁷⁾, GPs are commissioned to deliver NHS Health Checks in line with national guidance, including QRISK assessment, clinical risk identification and providing brief interventions or referrals for behavioural risk factors to health and wellbeing services, such as OYES. As the holder of the patient record, GPs are also responsible for any necessary clinical follow-up.

One You East Sussex:

As part of an Integrated Health and Wellbeing Service, OYES is commissioned to deliver NHS Health Checks in community settings, with a particular emphasis on engaging residents living in IMD 1 areas and men, who are typically underrepresented in uptake. Since March 2021, OYES has also partnered with several GP practices to provide NHS Health Checks on their behalf. In these collaborations, GP practices are responsible for identifying and inviting eligible patients, while OYES conducts the checks either in clinic rooms within the GP practices, via their mobile outreach vehicle (COLIN), or at Faraday House in Eastbourne. OYES are commissioned to deliver up to 2,300 NHS Health Checks per year. Furthermore, OYES share NHS Health Check results with GP practices and notify such practices of any clinical risk factors identified that require follow-up.

1.3 NHS Health Checks commissioning

In East Sussex, the NHS Health Check programme is commissioned by the Public Health team through PHLSAs. This outlines delivery, quality assurance and monitoring, ensuring alignment with both national guidance and local health priorities. Each GP practice is supported in planning and delivering an annual volume of NHS Health Checks, informed by their eligible population and expected uptake. To address health inequalities and improve cardiovascular outcomes, practices are incentivised to prioritise individuals from high-risk groups, including:

2018/19 and 2022/24 Target Groups

- Individuals with a Severe Mental Illness (SMI) or Learning Disability (LD)
- Current Smoker
- From and ethnic minority background
- Those residing in IMD 1

2025/26 Target Groups

- Current smoker
- People from ethnic minority backgrounds
- Residents in IMD decile 1 (most deprived areas)
- Individuals with a Severe Mental Illness (SMI) or Learning Disability (LD)
- Adults aged 50+ who have not had a check in the last 10 years.
- Individuals with a BMI of 30+

Practices are supported with guidance on effective invitation management and can issue invites via SMS. Follow-up is encouraged to maximise uptake. Records of invitations and completed checks must be maintained in line with national dataset requirements. To support delivery, practices may:

- Offer opportunistic NHS Health Checks during other appointments.
- Use recall systems and block clinics.

- Refer eligible individuals to outreach providers such as One You East Sussex (OYES), particularly for harder-to-reach groups.

Public Health Intelligence extracts NHS Health Check data from GP systems on a monthly basis. Tailored activity reports are returned to practices, detailing:

- Invitation sent
- NHS Health Checks completed

Practices can track progress and are reimbursed based on their activity, with enhanced tariffs depending on testing method and patient risk profile. Please see Appendix A for further detail and breakdown of tariffs.

2. Aims, Objectives, and Outcomes of the Evaluation

2.1 Aims

This evaluation aims to provide a comprehensive assessment of the economic, clinical, and behavioural outcomes of the NHS Health Checks programme in East Sussex, and to evaluate the programme's potential impact to reducing the prevalence of CVD across the county.

2.2 Objectives

Effectiveness in Identifying Risk

Analyse quantitative NHS Health Check data to assess how effectively the programme identifies individuals with clinical and behavioural risk factors for CVD and determine whether those identified with a risk factor are appropriately followed up within the health system.

Equitably Focussed Delivery and Health Inequalities

Examine quantitative data to assess the effectiveness of the NHS Health Checks programme in targeting populations at a higher risk of CVD and contributing to the reduction of health inequalities.

Delivery Model Comparison

Compare NHS Health Checks delivered in primary care settings with those delivered in community settings to explore potential differences in the identification of risk factors, clinical outcomes, and the follow-up journey.

Economic Evaluation

Conduct a local economic evaluation of the NHS Health Checks programme in East Sussex and benchmark findings against the national economic model to determine cost-effectiveness.

Health Equity Audit

Conduct a health equity audit of clinical outcomes arising from the programme to identify disparities in access, diagnosis, and follow-up care across different population groups.

Provider Experience and Understanding

To survey NHS Health Check providers across East Sussex to gather insights into their experiences of delivering the programme, in order to understand better their knowledge, confidence, perceptions, and suggestions for improvement.

2.3 Outcome

The outcome of this evaluation should demonstrate an objective assessment of the NHS Health Check programme's impact and value, supporting informed decisions about programmes future commissioning, funding, and delivery models.

3. Methodology

3.1 NHS Health Checks data

NHS Health Checks quantitative data was collected directly from GP clinical systems for the period 2018, 1st January to 2019, 31st December and Post Pandemic 1st of January 2023 to 31st of December 2024, using East Sussex County Council's GP Payment and Audit System Searches (GPPASS). Data from this period included NHS Health Checks delivered in GP practices as well as those delivered in community settings by OYES and Pharmacies which were sub commissioned by OYES. Due to Pharmacies being sub-contracted we are unable to distinguish data between OYES and Pharmacies.

3.2 Quantitative Data Methodology

3.2.1 Prevalence of outcomes from NHS Health Checks

The overall prevalence of behavioural risk factors included AUDIT-C score, BMI, physical activity score and smoking status.

For each risk factor, prevalence was calculated as the percentage of NHS Health Checks in which the risk factor was recorded, relative to the total number of completed checks.

$$\text{Prevalences} = \left(\frac{\text{Number of Health Checks Identifying Risk Factors}}{\text{Total Number of Health Checks Conducted}} \right) \times 100$$

Equation 1: Risk Factors

This calculation was conducted for the overall dataset and then repeated separately for appointments delivered by GP practices and those delivered by OYES, allowing for comparison between delivery models.

Behavioural risk factor	Thresholds
AUDIT-C score	Increasing risk - score 8-15 Higher risk - score 16-19 Dependence - score 20+
BMI	Overweight - 25-29 Obese - 30+
Physical activity	Inactive GPPAQ score
Smoking Status	Smoking - Yes

Table 4: Measurement Threshold for Behavioural Risk Factors Outcomes

The overall prevalence of clinical risk factors, including high blood pressure, high and very high Haemoglobin A1c (HbA1c), high cholesterol, irregular pulse, QRISK score 10-20 and QRISK score 20+.

Clinical risk factor	Measurement
High blood pressure	$\geq 140/90$ mmHg OR systolic blood pressure ≥ 140 mmHg OR diastolic ≥ 90 mmHg
High HbA1c	42-47 mmol/mol or fasting plasma glucose 5.5-6.9 mmol/l
Very high HbA1c	≥ 48 mmol/mol or fasting plasma glucose ≥ 7 mmol/l
High cholesterol	≥ 7.5 mmol

Table 3: Measurement Threshold for Clinical Risk Factors

3.2.2 Prevalence of Clinical Follow-up Pathways.

The percentage of individuals who progressed along clinical follow-up pathways following their NHS Health Check was calculated by provider type. The calculation points are outlined below. Data on clinical outcomes (such as a follow-up blood pressure reading) and diagnosis of conditions were collected at up to 6 months post-NHS Health Check.

Clinical risk factor identified	Follow-up pathway

High blood pressure	% follow-up blood pressure $\geq 140/90$ mmHg OR systolic follow-up blood pressure ≥ 140 mmHg OR diastolic follow-up blood pressure ≥ 90 mmHg % of those with high follow-up blood pressure then had hypertension diagnosed % of those who have had hypertension diagnosed prescribed antihypertensive medication % serum creatine check % of those with serum creatine check had diagnosed with CKD
High HbA1c	% follow-up diabetes blood test % of those with follow-up diabetes blood test diagnosed with NDH % of those with follow-up diabetes blood test diagnosed with diabetes
Very high HbA1c	% follow-up diabetes blood test % of those with follow-up diabetes blood test diagnosed with NDH % of those with follow-up diabetes blood test diagnosed with diabetes
High cholesterol	% prescribed or declined statins % familial hypercholesterolemia diagnosed
QRISK score 10-20	% prescribed or declined statins
QRISK score 20+	% prescribed or declined statins
Irregular pulse	% diagnosed with atrial fibrillation % of those diagnosed with atrial fibrillation prescribed anticoagulation medication

Table 4: Calculations for Clinical Follow-Up Pathway

3.2.3 Equity-Focused Delivery

This evaluation draws on anonymised data extracted directly from GP clinical systems using GPASS. It includes all patients recorded as having received an NHS Health Check during the

specified periods, across GP practices, OYES, and Community Pharmacies (provided the appointment was documented in the patient's medical record).

To explore changes in access and outcomes over time, this evaluation compared two distinct two-year periods:

- Pre-pandemic period: 2018/19 and 2019/20
- Post-pandemic period: 2022/23 and 2023/24

These periods were selected to examine the early effects of introducing targeted population groups aimed at improving equity of access and outcomes, and to assess the impact of service recovery following the COVID-19 pandemic and. These enhancements are aligned with the principle of universal proportionalism, ensuring that all populations are served, with additional support where need is greatest.

The fiscal years 2020/21 and 2021/22 were excluded due to significant disruption to routine preventative services, including NHS Health Checks, as national guidance prioritised the pandemic response.

By focusing on the two years immediately preceding the pandemic and the two most recent years of resumed service delivery, this analysis aims to provide an understanding of how the programme has evolved and how equitable access and outcomes have been supported across different population groups.

3.2.4 Health Equity Audit

A health equity audit was conducted to examine differences in clinical outcomes, follow-up appointments, diagnoses, and prescription rates among individuals who received an NHS Health Check.

The audit focused on the following clinical outcomes:

- High cholesterol,
- QRISK scores (10-20% and >20%),
- High blood pressure (systolic, diastolic, or both),
- High and very high HbA1c,
- Irregular pulse
- Chronic Kidney Disease

Where follow-up actions were indicated, such as repeat blood pressure readings or diagnostic tests, these were reviewed in line with the East Sussex risk assessment pathway and NICE guidance. Diagnosis and prescription rates were also included in the analysis.

Outcomes were calculated by:

- Sex

- Age (in 5-year bands)
- Index of Multiple Deprivation (IMD)
- Ethnicity

No cross-tabulation of characteristics (e.g., sex and age combined) was performed in this audit meaning each characteristic (e.g. sex, age, ethnicity, or deprivation level) was considered individually, not in combination with others. This approach was chosen to focus on overall trends for each variable of the NHS Health Check and to maintain clarity in reporting, while avoiding small subgroup sizes that could reduce statistical reliability. Future analyses could explore interactions between characteristics to provide a more nuanced understanding of the programme uptake and outcomes.

Results were calculated as percentages and compared against the overall population of individuals who received an NHS Health Check during the evaluation period. Where a specific group showed comparatively poorer outcomes, such as a higher prevalence of clinical risk factors or lower rates of follow-up or treatment, these were flagged for attention.

3.2.5 Economic Evaluation Methodology

This evaluation employed a cost-effectiveness analysis framework to assess the financial and health impacts of the NHS Health Check programme in East Sussex. Key metrics estimated include cost per QALY gained, net savings over time, and the BCR.

Data Sources and Model Inputs

The primary data source for this economic evaluation was the NHS Health Check Ready Reckoner national ROI tool, a publicly available modelling framework designed to estimate long-term costs, health outcomes, and savings associated with NHS Health Check delivery. The tool integrates epidemiological data, clinical outcomes, and cost parameters to simulate the expected impact of the programme over time.

Key model inputs include:

- Programme costs: Staff time, clinical assessments, follow-up, treatment, and monitoring costs as modelled within the Ready Reckoner.
- Health outcomes: Projected reductions in cardiovascular disease incidence, morbidity, and mortality, alongside QALYs gained.
- Cost savings: Estimated from avoided healthcare utilisation such as hospital admissions, outpatient visits, and medication costs.
- Local uptake data: NHS Health Check uptake rates of 45% in 2022/23 and 50% in 2024/25 were used to contextualise projections.

Time Horizon and Discounting

A 20-year time horizon was adopted to capture both immediate and longer-term programme impacts, reflecting the gradual accrual of health benefits from prevention and early intervention.

Key Assumptions

- The Ready Reckoner's assumptions reflect average national tariffs and clinical pathways, which may differ from local delivery models despite alterations to make the tool more applicable locally.
- The analysis focuses on direct healthcare system costs and savings; wider societal impacts such as productivity gains are excluded.
- Quality-adjusted life years incorporate standard health utility values.
- Additional local commissioning costs, including External Quality Assurance (EQA), are not included within the Ready Reckoner outputs.

Limitations

- National average assumptions do not fully capture local cost variations or service delivery nuances.
- Uptake rates are assumed constant within each evaluation year, without subgroup stratification.
- The model does not quantify indirect benefits beyond healthcare utilisation.
- The clinical effectiveness is based on 2022/23 evidence and may evolve with service innovations.

3.3 Qualitative Data Methodology

3.3.1 Literature Review

The literature review consolidates existing evidence on the impact, effectiveness, and implementation of NHS Health Checks. It pays special attention to the influence of NHS Health Checks on populations particularly susceptible to CVD, providing insights into how these preventative measures can be optimised to better serve diverse demographic groups.

3.3.2 Literature Review Approach

This literature review made use of published literature on PubMed and TRIP databases focusing on terms including 'cardiovascular primary prevention,' 'NHS Health Check' and 'NHSHC' within the United Kingdom (UK). This approach was the most appropriate because

PubMed and TRIP are comprehensive, reputable databases for health and medical research, ensuring access to high-quality, peer-reviewed evidence.

The search was then focused in on our target groups using terms ‘severe mental illness,’ ‘learning disabilities,’ ‘smoker OR smoking,’ ‘ethnic minority,’ ‘IMD1’ OR ‘poverty OR deprivation OR low income’ prioritising the most recent evidence.

Search Term	Number of Results
(title: cardiovascular prevention primary)	870
uk OR kingdom OR england, (title: cardiovascular prevention primary)	8
“nhs health check”	65
“NHS Health Checks”	8
“nhs health check” OR “NHS Health Checks”	65
(title: cardiovascular prevention primary) OR (“nhs health check”)	935
(title: cardiovascular prevention primary) OR (“nhs health check”) OR “NHS HEALTH CHECKS”	935
(title: cardiovascular prevention primary) OR (“nhs health check”) from _date:2020	252
(title: cardiovascular prevention primary) OR (“nhs health check”) from _date:2023	36
“severe mental illness”, (title: cardiovascular prevention primary) OR (“nhs health check”)	15
“learning disabilities”, (title: cardiovascular prevention primary) OR (“nhs health check”)	19
smoker OR smoking, (title: cardiovascular prevention primary) OR (“nhs health check”)	27
“ethnic minority”, (title: cardiovascular prevention primary) OR (“nhs health check”)	49

Search Term	Number of Results
"IMD 1", (title: cardiovascular prevention primary) OR ("nhs health check")	0
poverty OR deprivation OR low-income, (title: cardiovascular prevention primary) OR ("nhs health check")	28

Table 5: TRIP Database Search

PubMed Database Search

Search Term	Number of Results
(title: cardiovascular prevention primary) OR ("nhs health check" OR "NHS Health Checks") AND (target OR at-risk) AND (NHS OR UK)	37
(title: cardiovascular prevention primary) OR ("nhs health check" OR "NHS Health Checks") AND (target OR at-risk)	53
(title: cardiovascular prevention primary) OR ("nhs health check" OR "NHS Health Checks") AND (poverty OR deprivation OR low-income)	35
(title: cardiovascular prevention primary) OR ("nhs health check" OR "NHS Health Checks") AND "IMD 1"	0
(title: cardiovascular prevention primary) OR ("nhs health check" OR "NHS Health Checks") AND "ethnic minority"	4
(title: cardiovascular prevention primary) OR ("nhs health check" OR "NHS Health Checks") AND (smoking OR smoker)	35
(title: cardiovascular prevention primary) OR ("nhs health check" OR "NHS Health Checks") AND "learning disability"	0
(title: cardiovascular prevention primary) OR ("nhs health check" OR "NHS Health Checks") AND "learning disabilities"	0
(title: cardiovascular prevention primary) OR ("nhs health check" OR "NHS Health Checks") AND "severe mental illness"	0

Search Term	Number of Results
(title: cardiovascular prevention primary) OR ("nhs health check" OR "NHS Health Checks") Filters: from 2023 - 2024	22
(title: cardiovascular prevention primary) OR ("nhs health check" OR "NHS Health Checks") Filters: from 2020 - 2024	82
(title: cardiovascular prevention primary) OR ("nhs health check" OR "NHS Health Checks")	251
"nhs health check" OR "NHS Health Checks"	135
NHS Health Checks	16
"nhs health check"	130
(title: cardiovascular prevention primary) AND (NHS OR UK)	39
title: cardiovascular prevention primary	116
cardiovascular primary prevention	35,578

Table 6: PubMed Database Search

In total 28 sources were included in this review. Five were systematic reviews and two randomised controlled trials relating to invitation methods were included. Example of reasons for exclusions were no information on screening those without pre-existing CVD.

3.3.3 NHS Health Check provider survey

Between 31 July and 27 September 2024, an online survey was distributed to NHS Health Check providers across East Sussex, including GP practice staff, OYES practitioners, and community pharmacy teams. The survey was promoted via direct email from the commissioner to GP and OYES leads to disseminate amongst their staff members.

The survey included a combination of multiple-choice and open-text questions. It explored several key areas:

- Provider background and role
- Understanding of the purpose of NHS Health Checks
- Training experiences and needs
- Methods of patient invitation and delivery
- Confidence and competence in delivering behaviour change conversations.

The open-text questions invited providers to reflect on:

- What aspects of the programme in their experience with patients were working well or less well.
- Levels of patient engagement
- General feedback on the NHS Health Checks programme

Quantitative analysis was conducted on the multiple-choice responses to identify key patterns and frequencies. In parallel, a qualitative thematic analysis was applied to the open-text responses, enabling the identification of recurring themes, insights, and perspectives from providers. Additionally, where relevant, open-text responses provided under the “Other” options in multiple-choice questions were reviewed to offer further contextual understanding.

4. Literature Review: Implementation and Equitable Delivery of NHS Health Checks

Since its inception in 2009, the NHS Health Check programme has contributed to the early detection and prevention of chronic diseases. Several studies have highlighted its effectiveness in identifying individuals at high risk for CVD, leading to timely interventions that mitigate long-term health risks. For instance, a study by Artac ⁽⁸⁾, demonstrated that participants of the NHS Health Check programme showed improvements in managing risk factors such as blood pressure and cholesterol levels compared to non-participants.

Evidence from McCracken ⁽⁹⁾ suggests the programme has facilitated the early diagnosis of diabetes and CKD, enabling patients to receive necessary treatments and lifestyle advice to manage their conditions better. The positioning of the NHS Health Checks within primary care settings has enhanced its reach and effectiveness, ensuring that high-risk individuals are regularly monitored and supported.

The COVID-19 pandemic disrupted the delivery of health checks, necessitating adaptations to maintain service continuity. One of the challenges faced by the programme is ensuring equitable access to health checks, particularly among underserved and populations with a disproportionate disease burden. Prioritising invitations and health checks for individuals at greater risk of developing CVD has been a strategic focus of the NHS Health Checks programme. Focussed interventions have shown promising results in improving health outcomes among these groups. For example, ethnic minority groups and individuals from deprived areas often face higher CVD risks due to socio-economic factors and healthcare access issues. The hope is tailored interventions will be effective in addressing these disparities.

This aligns well with the concept of proportionate universalism proposed by Marmot ⁽¹⁰⁾, which suggests interventions to reduce health inequalities should be comprehensive but also scaled to the levels of deprivation. While all receive support, those who are more disadvantaged receive more intense support.

4.1 Review of NHS Health Check Effectiveness

Numerous studies have assessed the effectiveness of NHS Health Checks in identifying patients at risk of CVD. The role of the programme is not only about risk identification but on making the relevant diagnosis and supporting patients in treatment and future management.

An early systematic review (four years) by Artac ⁽³⁾ highlighted that NHS Health Checks were associated with increased detection of diabetes, hypercholesterolemia, and hypertension. The review noted a significant rise in the identification of these conditions, which are key

risk factors for CVD. However, while the detection rates were high, the initial evidence linking these detections to improved health outcomes was inconclusive. The study suggested that further research was needed to establish a clear connection between early detection and long-term health benefits.

A more recent matched cohort study by McCracken in 2024⁽⁹⁾ provided evidence on the effectiveness of NHS Health Checks. This study found that health checks were associated with a reduced incidence of diseases across multiple organ systems. The reductions were attributed to the earlier detection and treatment of key risk factors. The comprehensive analysis indicated that NHS Health Checks improved detection rates and contributed to a tangible decrease in the prevalence of chronic diseases due to timely medical interventions.

McCracken aligned with a systematic review by Mistry⁽¹²⁾ in 2022 which analysed the program's effectiveness, focusing on its cost-effectiveness. The review concluded that NHS Health Checks are a cost-effective intervention for the primary prevention of CVD. The analysis showed that the financial investment in NHS Health Checks was justified by the significant reductions in healthcare costs due to the prevention of advanced disease stages and the associated complications. This finding underscores the economic sustainability of NHS Health Checks in preventing CVD and related chronic conditions.

The evidence shows that NHS Health Checks effectively identify risk factors for CVD, leading to a reduced incidence of these diseases through early preventative treatment. The findings from various studies highlight that the program not only enhances early detection of critical health conditions but also improves health outcomes and is cost-effective. These benefits collectively reinforce the importance of NHS Health Checks as a vital component of public health strategy aimed at reducing the burden of chronic disease in the UK.

4.2 Review of Variation in NHS Health Check Delivery and Quality

While available evidence highlights the effectiveness of the NHS Health Checks programme in terms of disease detection and reduction, there has been significant variation found in the quality and consistency of its delivery across different regions of the UK. These disparities affect the programme's overall impact and effectiveness.

Research by Debiec⁽¹³⁾ assessed NHS Health Check effectiveness at multiple primary care practices across localities. They highlighted a crucial gap in the follow-up and treatment of high-risk patients identified through NHS Health Checks. While most high-risk patients received effective follow-up and interventions, about one-third did not receive any subsequent treatment. This lack of follow-up undermines the programme's potential to reduce the incidence of CVD and other chronic conditions.

One potential reason for regional variation in delivery and quality, suggested by research by Duddy⁽¹⁴⁾, could be related to a lack of clarity from professionals on the programmes

purpose. For example, some providers and commissioners viewed NHS Health Checks primarily as a screening tool, while others consider it as an opportunity for promoting behavioural change. This inconsistency was described as contributing to a 'postcode lottery' where the quality and nature of service delivery varied significantly by region, leading to unequal health outcomes.

According to a survey of local authorities that commission NHS Health Checks by Gadsby⁽¹⁵⁾ the variability in who delivers NHS Health Checks and the lack of awareness among some commissioners about the programme's delivery mechanisms has contributed to the inconsistency in service quality. The checks were conducted by a range of healthcare professionals, from nurses to general practitioners, leading to differences in the thoroughness and quality of the assessments.

Hyseni⁽¹⁶⁾ emphasised the need for a shared understanding of the NHS Health Checks programme among all stakeholders to improve its quality and public engagement. The authors suggested that a unified approach and clear communication regarding the programmes goals and procedures are essential to standardise delivery and enhance its effectiveness.

A review of practice by GP practices in West Midlands by Gidlow⁽¹⁷⁾ reported that the communication of CVD risk during health checks was often brief and insufficient. This suggests a need for more thorough and effective communication strategies to ensure that patients fully understand their health risks and the necessary steps to mitigate them. Improved communication could enhance patient engagement and adherence to recommended interventions.

This literature review found that the variation in NHS Health Check delivery highlights the need for more consistent and standardised approaches across different regions. Addressing the gaps in follow-up care, clarifying the programmes' purpose, ensuring that all healthcare professionals involved are adequately trained, and improving communication with patients are critical steps towards enhancing the programme's overall effectiveness. By focusing on these areas, the NHS Health Checks programme can better achieve its goals of early detection and prevention of chronic diseases, thereby reduce healthcare disparities, and improve public health outcomes.

4.3 Review of Population Targeted NHS Health Checks

4.3.1 Severe Mental Illness (SMI)

Individuals living with SMI are at a significantly higher risk of CVD, which remains a major preventable contributor to premature mortality in this group. A study conducted by Shaw⁽¹⁸⁾ highlights the persistent issue of CVD as a major preventable cause of premature death among patients with SMI. Two further studies (Xue⁽¹⁹⁾ and Hassan⁽²⁰⁾), emphasise the limited

research on CVD screening rates and interventions for patients with SMI. They advocate for more focussed CVD risk screening and tailored training for health practitioners to better serve this vulnerable population.

A national review of GP-registered patients by Garriga⁽²¹⁾ . identified that individuals living with SMI were 5-10% more likely to attend an NHS Health Check than those without SMI.

Those who attended their NHS Health Check also had higher rates of CVD diagnosis as a result, in comparison to the general population. This suggests that NHS Health Checks can reduce adverse cardiovascular events by facilitating earlier identification and treatment of co-morbidities in patients with SMI.

4.3.2 Ethnic Minority Backgrounds

A systematic review of national data, by Martin⁽²²⁾, taken from the first eight years of the programme found no significant difference in uptake by ethnicity with the exception of a marginally higher attendance rate among South Asian groups. Patel⁽²³⁾ supported this pattern, and this review also found no significant evidence of inequity by ethnicity. At a more local level, a cross-sectional study in Bristol by Coghill⁽²⁴⁾ found no significant evidence of inequity in attendance among ethnic minority groups.

In South London, Molokhia⁽²⁵⁾ reported differential uptake by ethnic groups, with the highest non-uptake among the 'Other White' groups, a diverse category that includes second and subsequent generations born in the UK and South Americans with known health inequalities. Uptake ranged from 62% among people identifying as 'Other White' or those with missing ethnicity to 88% among people from Bangladeshi, Pakistani, Arab, and Black Caribbean groups.

Chattopadhyay⁽²⁶⁾ completed a study in Leicester which found that individuals from Black and ethnic minority groups were more likely to undergo an NHS Health Checks. The odds were lowest for those without a religion, residing in IMD 4 and in ex-smokers.

4.3.3 Socioeconomic Deprivation

Socioeconomic deprivation is closely linked to higher CVD morbidity and mortality⁽²⁷⁾, yet uptake of NHS Health Checks remains lower in more deprived areas. Martin⁽¹⁹⁾ noted lower uptake of NHS Health Checks among individuals from the most deprived areas, despite higher invitation rates and Lang⁽²⁸⁾ reviewed efforts by nine UK general practice sites and summarised that those with the most to gain from health checks were the least likely to attend. Dryden⁽²⁹⁾ identified men with low incomes, low socioeconomic status, unemployment, and lower education levels as least likely to attend NHS Health Checks.

From these studies we can infer that this pattern occurs because socioeconomic deprivation often creates multiple barriers to accessing preventive healthcare. Individuals in more deprived areas may face practical obstacles such as work constraints, transport difficulties,

or caregiving responsibilities, as well as psychosocial factors like lower health literacy, mistrust of healthcare services, or competing daily stressors. As a result, even when invitations to NHS Health Checks are issued, those who might benefit most are less able or motivated to attend, leading to lower uptake despite higher need.

4.3.4 Limited Research

There is limited literature on the impact of NHS Health Checks on smokers or patients with learning disabilities. No further evidence was found on the specific outcomes or effectiveness of targeting these groups within the NHS Health Check programme.

4.4 Review of Approaches to Increase Uptake of NHS Health Checks

4.4.1 Opportunistic Invitations

A cross-sectional study of 52 general practices in Walsall by Ogunlayi⁽³⁰⁾, found that opportunistic invitations could significantly increase uptake by up to 25-fold. These invitations were made during other primary care consultations, leveraging existing patient interactions to promote health check attendance.

Gold⁽³¹⁾ demonstrated the effectiveness of opportunistic invitations triggered by computer prompts during primary care consultations. This method increased the likelihood of patients attending NHS Health Checks.

Tanner⁽³²⁾ noted that opportunistic invitation strategies were particularly effective for increasing uptake among males, younger individuals, and those from higher deprivation backgrounds. This suggests that integrating opportunistic invitations into routine care could address demographic groups with traditionally lower attendance rates.

4.4.2 Community Engagement

Nahar⁽³³⁾ criticised the inefficient implementation of NHS Health Checks, highlighting low uptake, lack of awareness, and poor engagement, especially among disadvantaged groups. Nahar advocated for community engagement programmes to enhance primary prevention efforts.

Junghans⁽³⁴⁾ showed that Community Health & Wellbeing Workers (CHWWs) dramatically increased health check attendance through direct engagement. CHWWs played a crucial role in educating and encouraging patients, leading to better participation rates.

Woringer⁽³⁵⁾ recommended targeted involvement by community outreach providers to assist underserved groups. Outreach efforts tailored to specific communities can bridge gaps in awareness and access.

4.4.3 Telephone Outreach and Communication Strategies

Brangan⁽³⁶⁾ found that a telephone outreach service in Bristol improved engagement with groups facing language barriers, increasing understanding and uptake of NHS Health Checks. Personalised phone calls helped to clarify the purpose and benefits of NHS Health Checks, thereby encouraging attendance.

Sallis⁽³⁷⁾ conducted a randomised control trial in Northamptonshire, showing that varying invitation letters to address attendance barriers or imply sunk costs increased attendance. Tailoring communication to address specific concerns and motivations of patients proved effective in boosting participation.

4.4.4 Venue and Invitation Methods

Roberts⁽³⁸⁾ highlighted the influence of venue on NHS Health Check reach, promoting strategies that consider varying locations when targeting specific groups. Offering health checks in familiar and accessible locations can enhance attendance among different demographic groups.

Bunten⁽³⁹⁾ called for further research on the effectiveness of different invitation methods for various ethnicities and genders. Understanding the preferences and behaviours of diverse patient groups can inform more effective outreach strategies.

4.5 Literature Review Summary

The evidence consistently supports the effectiveness of NHS Health Checks in identifying individuals at risk of CVD, enabling early intervention and preventive treatment. Studies demonstrate that the programme improves early detection of long-term conditions, enhances health outcomes, and is cost-effective. These findings affirm the NHS Health Check's value as a key component of the UK's public health strategy to reduce the burden of chronic disease.

There is a notable lack of published research on the effectiveness of NHS Health Checks for smokers and people with learning disabilities. This represents an important evidence gap that needs further exploration to ensure equitable access and impact across all at-risk groups.

While the literature does not include studies specifically evaluating the impact of financial incentives for targeting high-risk populations, several other strategies have shown promise in improving attendance and engagement. These include opportunistic invitations,

telephone outreach to address language barriers, personalised invitation letters, and offering NHS Health Checks in more accessible community settings.

In summary, NHS Health Checks are a valuable preventative tool, but their success depends on focussed, equitable delivery. Tailoring approaches to reach underserved groups, through flexible invitations, community outreach, and system-level improvements, can help maximise their impact, reduce health inequalities, and strengthen public health outcomes across the population.

5. How effective is the East Sussex delivery models at identifying and following up on behavioural and clinical risk factors?

During the evaluation period (2018-19 and 2021-24), GP practices conducted a total of 25,198 NHS Health Checks, while OYES delivered 2,648 eligible checks. It is estimated that OYES's delivery was evenly split, with approximately 50% of the checks conducted in community settings (e.g., workplaces) and the remaining 50% delivered through collaborations with GP practices.

5.1 Behavioural Risk Factors

Due to coding and data transfer errors between OYES and GP practices during this period, we have decided to omit data from OYES conducted NHS Health Checks for this section so as to maintain a level of reliability in the data. As such the behavioural risk factors data only considers data from GP NHS Health Checks and we are unable to examine the effectiveness of different arms of the NHS Health Check programme in East Sussex in identifying behavioural risk factors.

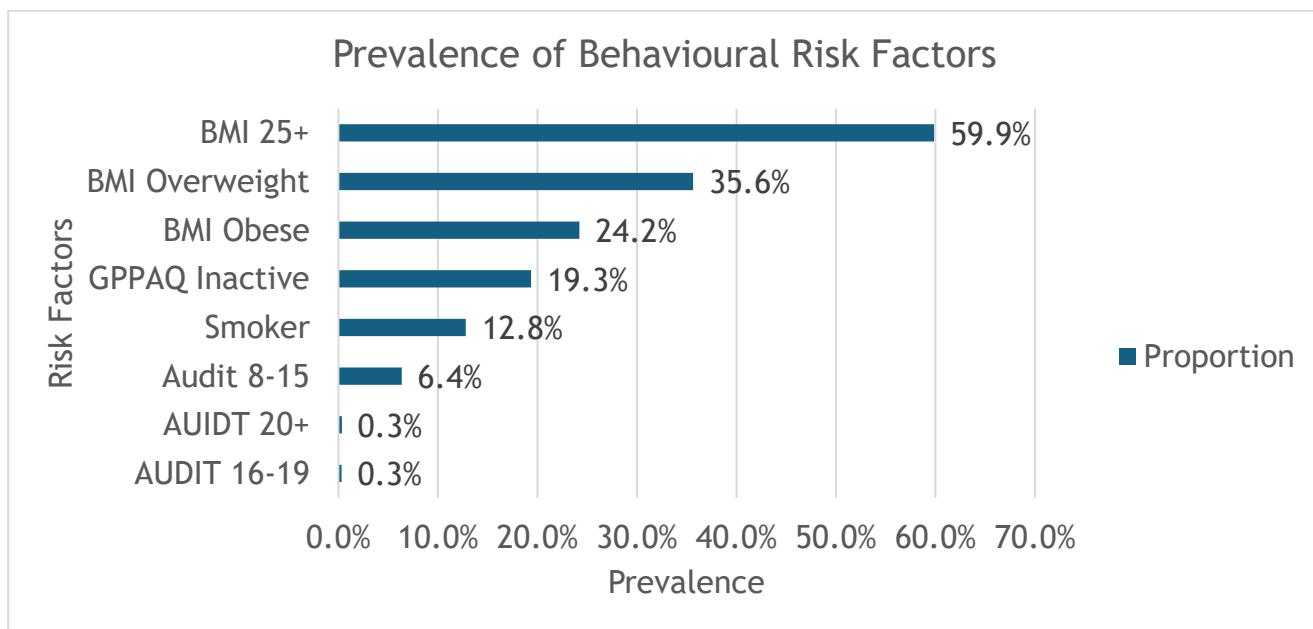


Figure 2: Prevalence of Behavioural Risk Factors in GP delivered NHS Health Checks

GP data indicates that behavioural risk factors remain a significant public health concern, with almost 60% of patients recorded as having a BMI of 25 or above and 24.2% classified as obese. Physical inactivity is also notable, with 19.3% of individuals recorded as inactive, highlighting the need for continued focus on weight management and physical activity interventions. Smoking prevalence in East Sussex (10.8%) which is similar to England's

average (10.9%) with Hastings also having a prevalence of 15.9%, suggesting ongoing opportunities for cessation support as reported by the [Department of Health and Social Care](#).

According to the [Health Survey for England: Adult drinking - NHS England Digital](#) Based on AUDIT scores, 11% of adults were identified as increasing risk drinkers, with 1% classified as higher risk and 1% indicating possible dependence. We are unable to do a direct comparison, as the national data includes those AUDIT-C results taken outside of an NHS Health Check. However, the national data does provide 'us' with an idea on how consistent the AUDIT-C is being implemented in East Sussex at an NHS Health Check appointment. Locally, 6.4% of adults who have had an NHS Health Check have been identified at increasing risk (AUDIT 8-15) and less than 1% in higher-risk categories. Acknowledging the national figures, (whilst we are unable to be definitive), the local data would imply that identification of people at increasing risk of alcohol harm is lower than expected which could be due to a range of reasons, including under-recording.

Overall, the data suggests that overweight, obesity, and physical inactivity are the dominant behavioural risks locally. The data shows that there is a significant proportion of the eligible population that could benefit from support for weight management and physical activity.

5.2 Clinical Risk Factors

Data in this section includes NHS Health Checks delivered by both GP practices and OYES.

The prevalence of clinical risk factors identified through completed NHS Health Checks shows that high blood pressure and moderate cardiovascular risk (QRISK 10-20) are the most common outcomes, with smaller proportions identified as having high cardiovascular risk (20+), raised HbA1c, and high cholesterol. Very high HbA1c and irregular pulse were found to be less prevalent. These results highlight the ability of NHS Health Checks in detecting cardiovascular and metabolic risks early, supporting timely intervention and prevention.

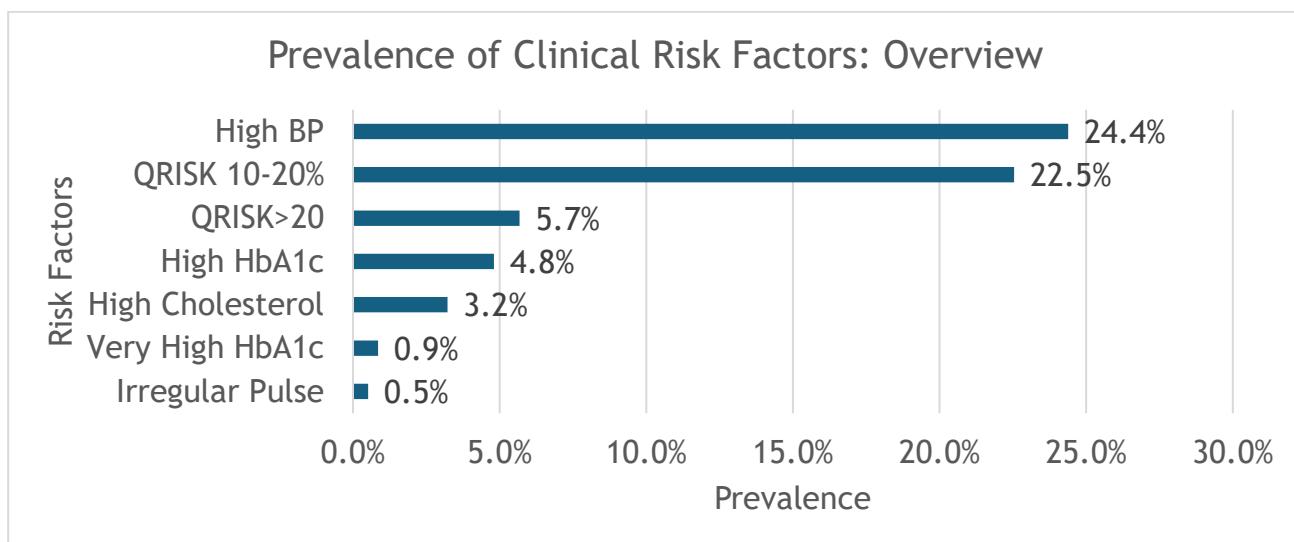


Figure 3: Prevalence of Clinical Risk Factors within GP and OYES delivered NHS Health Checks

This data suggests there are high levels of High Blood Pressure (nearly 1 in 4 people) and those with 10 to 20% chance of a stroke or heart attack in the next 10 years.

5.2.1 High HbA1c and Very High HbA1c

The data shows very similar prevalence of high HbA1c, very high HbA1c, non-diabetic hyperglycaemia (NDH) and diabetes cases identified across GP and OYES delivered NHS Health Checks. For example, a high HbA1c reading was recorded in 4.9% of GP checks and 4.0% of OYES checks, with comparable figures across other categories.

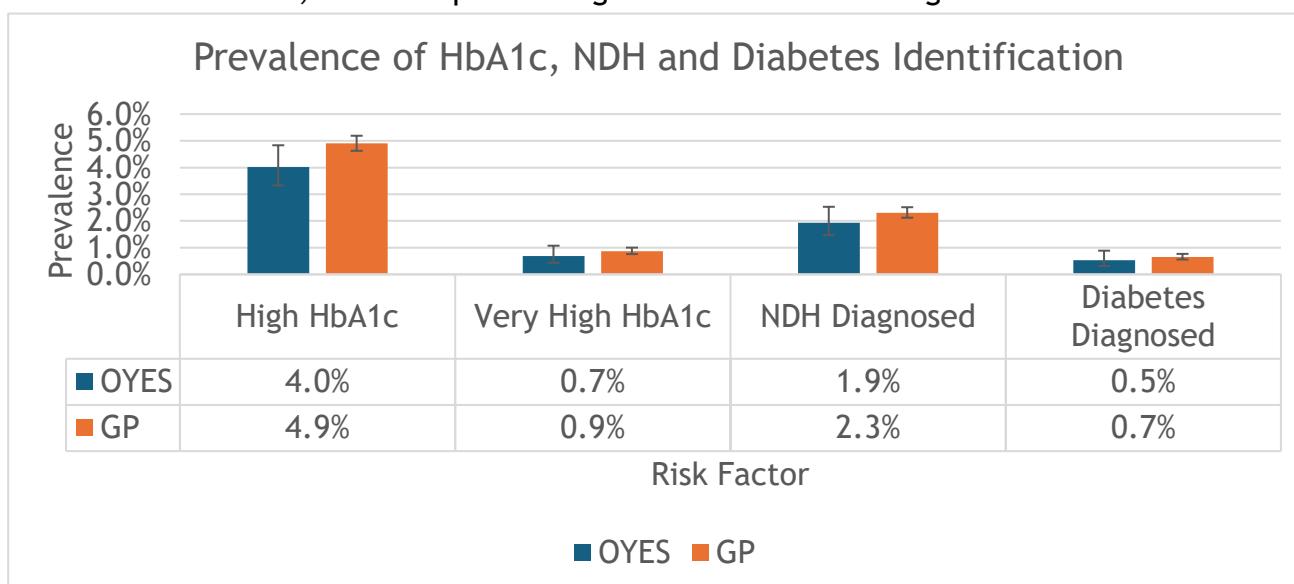


Figure 4: Prevalence HbA1c, NDH and Diabetes Identification

The follow-up of abnormal HbA1c results was similar across GP and OYES delivered NHS Health Checks. Around one-third of individuals with high HbA1c were diagnosed with NDH,

while approximately two-thirds of those with very high HbA1c were diagnosed with diabetes.

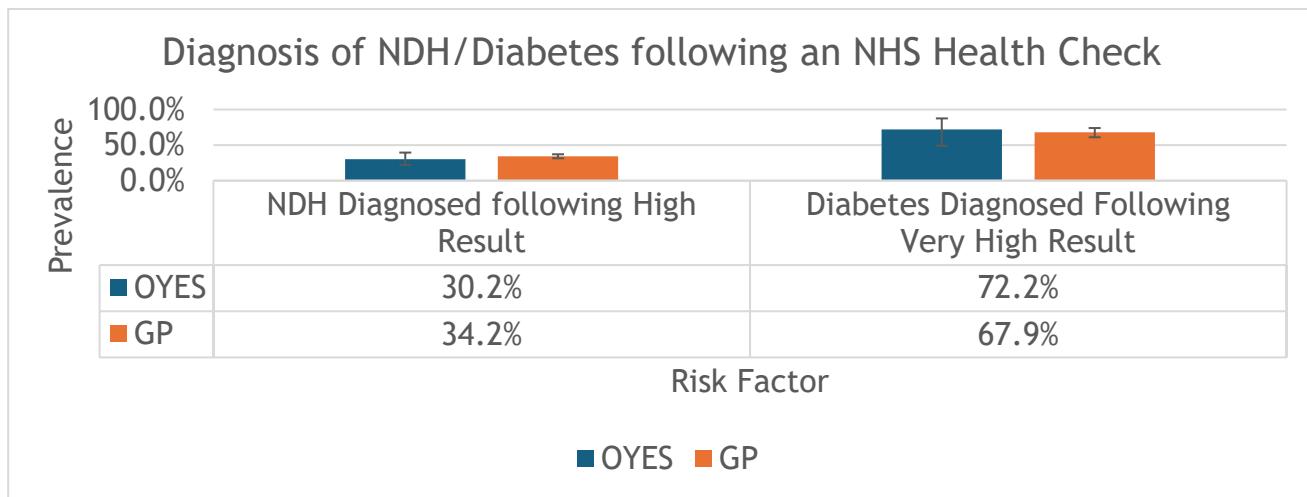


Figure 5: Diagnosis of NDH or diabetes following an NHS Health Check

5.2.2 High Blood Pressure

Below, figure 6 compares hypertension outcomes between OYES and GP NHS Health Checks. There appears to be a statistically significant difference in individuals having a follow up GP appointment for high blood pressure after their NHS Health Check between those who had their NHS Health Check at their GP versus an OYES Health Check. Specifically, 68.1% of individuals identified through OYES received follow-up via their GP compared to 49.5% identified through GP. Those who had a high blood pressure as part of their OYES NHS Health Check were also significantly more likely to be diagnosed with hypertension as part of their follow-up (as well as being more likely to have a follow-up blood pressure appointment).

While OYES-engaged individuals were more likely to have raised blood pressure identified at follow-up, they were less likely to receive antihypertensive prescribing. This trend persists at second follow-up and may be influenced by diagnostic pathways, confirmation of diagnosis, and clinical management decisions. Several factors may explain this pattern. OYES practitioners typically emphasise behaviour change strategies, such as diet, physical activity, and alcohol moderation, because their role focuses on prevention rather than prescribing medication. As a result, individuals who have engaged with OYES services may prefer to continue lifestyle changes when they visit their GP, before considering pharmacological options. Additionally, OYES practitioners operate within strict guidelines and do not have access to full medical histories. They cannot make prescribing decisions and often advise patients to follow-up with their GP for further assessment. In contrast, GPs have completed clinical information and can apply professional judgement to determine whether medication is necessary. Consequently, not all individuals referred from OYES go on to receive antihypertensive treatment, as a prescription depends on diagnostic confirmation

and the GP's clinical assessment, including whether lifestyle modification remains appropriate based on the individual's overall risk profile.

Given the statistically significant difference in follow-up rates between OYES and GP NHS Health Checks, it is recommended to explore the underlying factors contributing to this variation. This could include qualitative feedback from practitioners and patients, pathway audits, or further analysis of appointment structures and referral behaviours. Understanding these contextual elements will help inform service design and ensure both models are optimally aligned to support effective hypertension diagnosis and management.

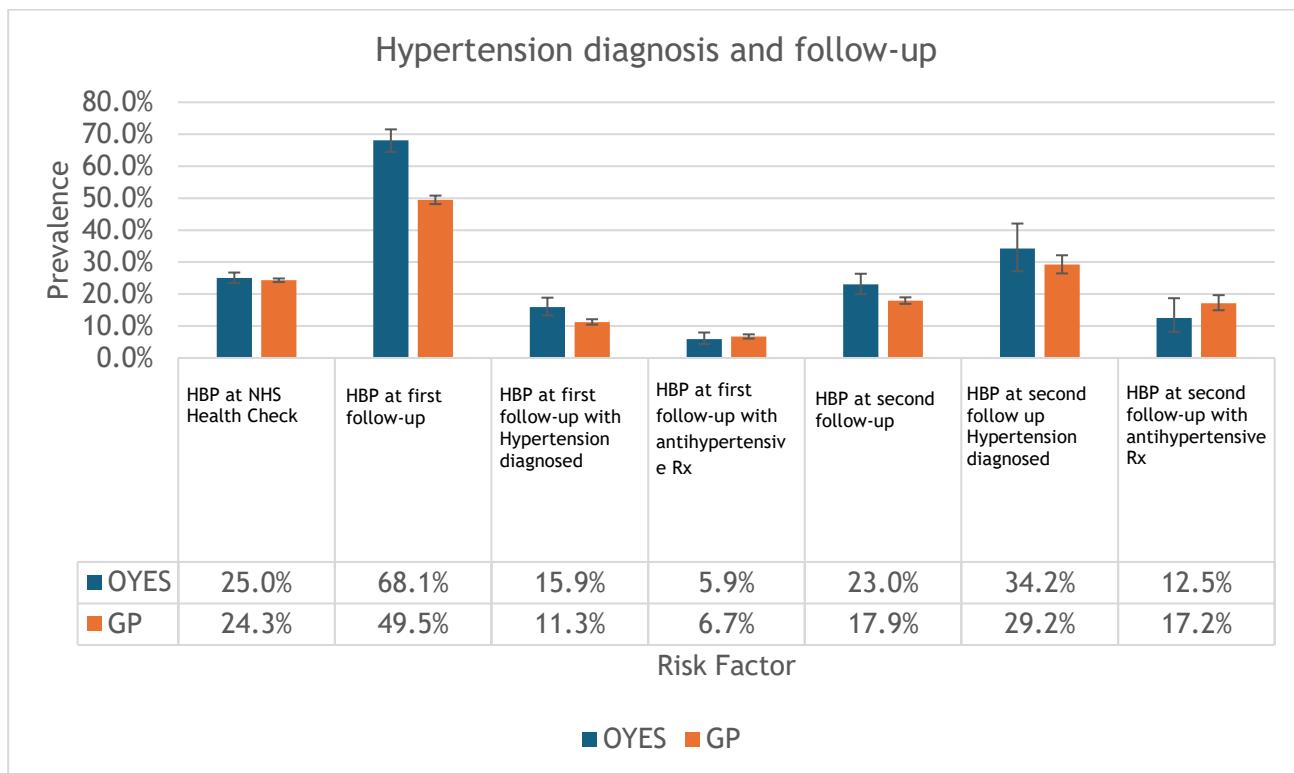


Figure 6: Hypertension diagnosis and follow-up

5.2.3 Irregular Pulse and Atrial Fibrillation

Across all NHS Health Checks, 0.5% of patients were recorded as having an irregular pulse and 0.2% were diagnosed with atrial fibrillation (AF), indicating a relatively small but clinically important cohort at increased risk of stroke and other cardiovascular complications. Among those diagnosed with AF, 68.3% were prescribed anticoagulation. Among patients with both an irregular pulse and diagnosed AF, 60% received anticoagulation; however, interpretation is limited by small numbers. Anticoagulation would not be expected in all cases, as prescribing is dependent on age and stroke risk (e.g. CHA₂DS₂-VASc score)⁽⁵¹⁾, bleeding risk, patient preference, and clinical contraindications.

Provider	Risk Factor	Denominator	Numerator	Proportion	Lower CL (95%)	Upper CL (95%)
All	AF Diagnosed	25,108	41	0.2%	0.1%	0.2%
All	Anticoagulation Rx	25,108	186	0.7%	0.6%	0.9%
All	Irregular Pulse	25,108	129	0.5%	0.4%	0.6%
All	Irregular Pulse and AF Diagnosed	129	5	3.9%	1.7%	8.8%
All	AF Diagnosed Rx Anticoagulation	41	28	68.3%	53.0%	80.4%
All	IRREG Pulse and AF Rx Anticoagulation	5	3	60.0%	23.1%	88.2%

Table 7: Prevalence of Irregular Pulse and Atrial Fibrillation

5.2.4 QRISK 10-20

The QRISK 10-20 data shows similar prevalence between OYES and GP NHS Health Checks across all categories, with no indication of statistically significant differences. This data also suggests comparable outcomes in terms of statin prescribing and patient decisions regarding accepting a statin prescription within this risk range.

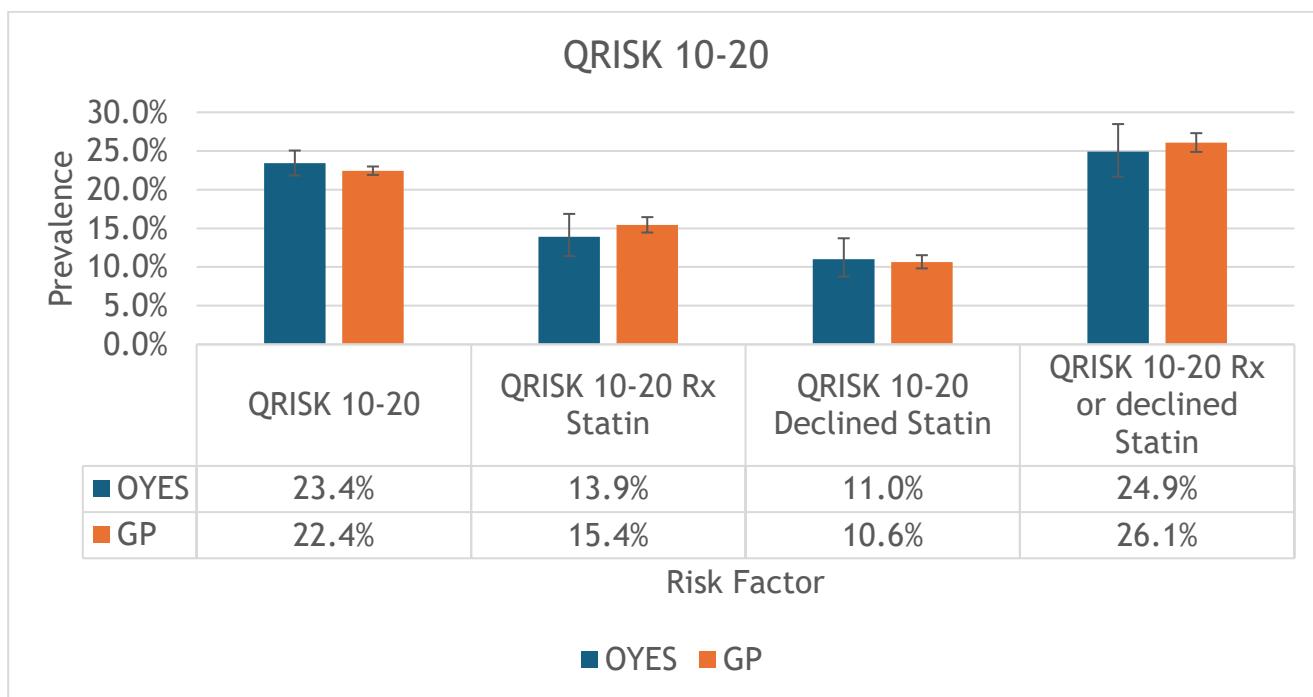


Figure 7: QRISK 10-20

Approximately 23% of those who received an NHS Health Check were identified as having a score of 10-20 cardiovascular risk. Around 25% of individuals with a QRISK score of 10-20% had a recorded statin outcome (either prescribed or declined). This should not be interpreted as only 25% being offered a statin, as clinical guidance recommends that all individuals in this risk group are offered treatment; rather, it reflects limitations in outcome recording. Instead, it is highly likely that:

- many lifestyle-only discussions are not coded as “declined”,
- some clinical conversations are simply not captured in the GP record, and
- coding practices vary between clinicians and providers.

In routine practice, when people are told for the first time that they are at moderate cardiovascular risk, many choose to try lifestyle changes before considering medication, and clinicians often support this as a reasonable first step. However, unless the clinician explicitly codes “statin declined”, the system will not show an outcome.

Therefore, the 25% figure most likely reflects a data recording gap rather than the true rate of statin offer.

5.2.5 QRISK 20+

The QRISK 20+ data shows a statistically significant difference in statin prescribing between the OYES and GP NHS Health Checks. Specifically, 22.0% of OYES patients with QRISK scores over 20 were prescribed statins compared to 33.7% in the GP group.

As individuals who had a GP NHS Health Check and had a QRISK score over 20 were more likely to be prescribed a statin in comparison to OYES NHS Health Checks, it is recommended to explore the underlying factors contributing to this variation. Understanding these differences may help ensure consistent and equitable cardiovascular risk management across pathways.

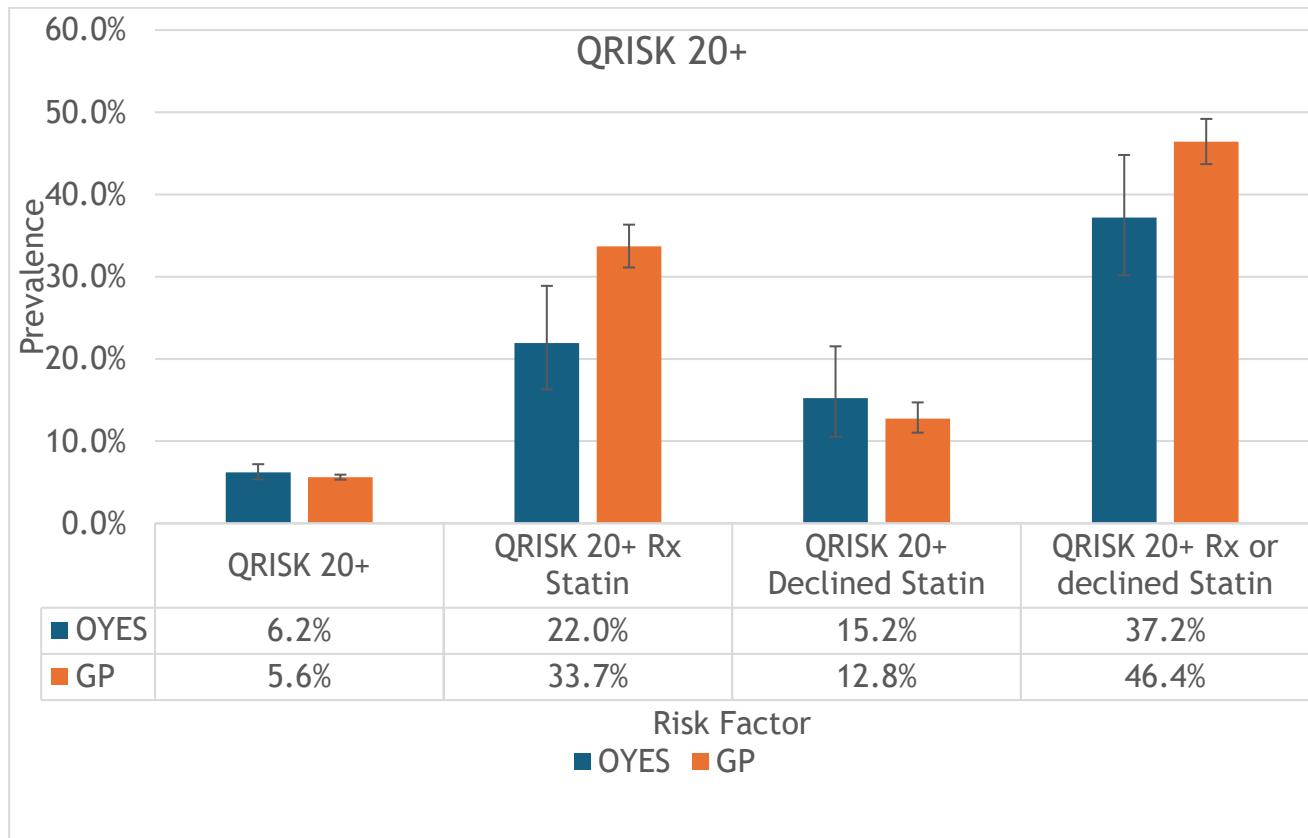


Figure 8: QRISK 20+

Of those identified with a QRISK of 20+ and prescribed a statin, there is a significant difference between delivery models. Similarly to the findings of High Blood Pressure, those originally engaged with OYES, are less likely to be prescribed a statin and of those that are offered a prescription, they are more likely to decline this.

5.2.6 QRISK 10-20 and QRISK 20+

This data shows the overall prevalence of QRISK identification across QRISK 10-20 and QRISK 20+. This data shows that, irrespective of ones QRISK score, those originally engaged with OYES are less likely to be prescribed a statin and more likely to decline a statin if offered one.

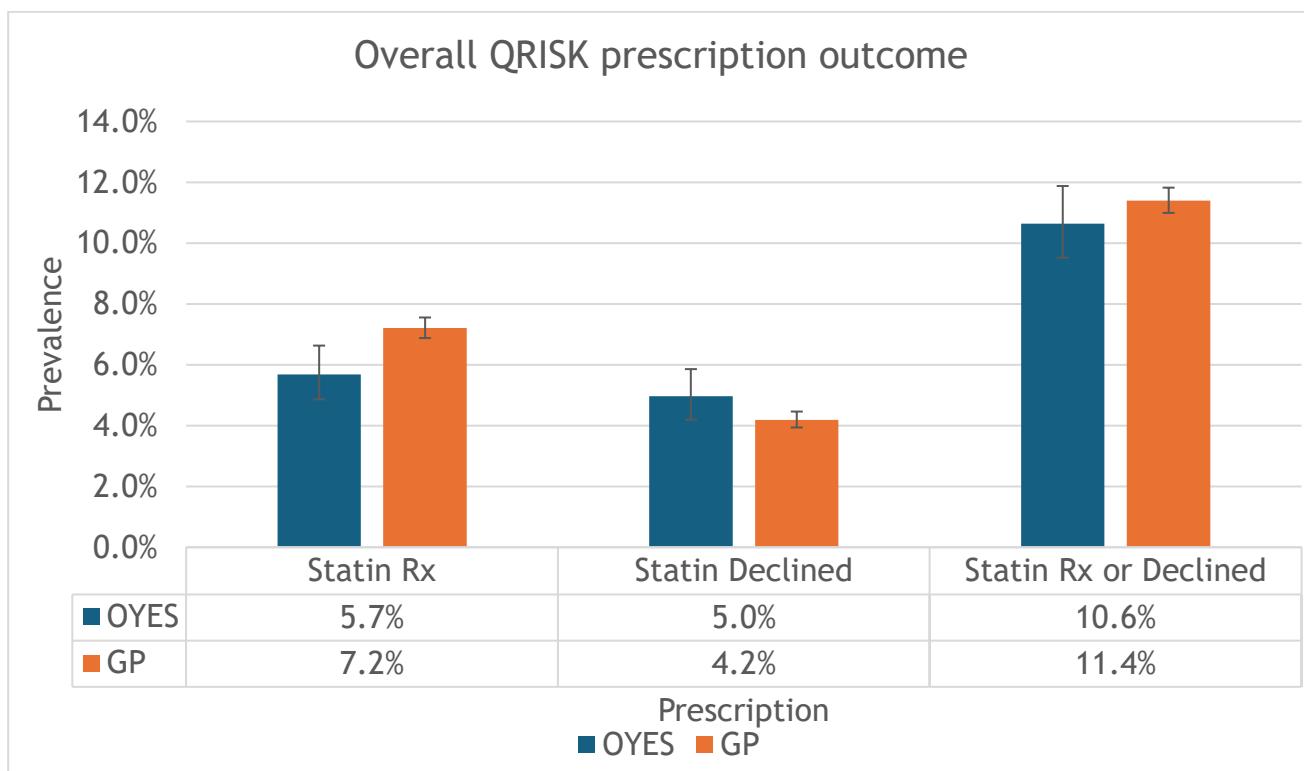


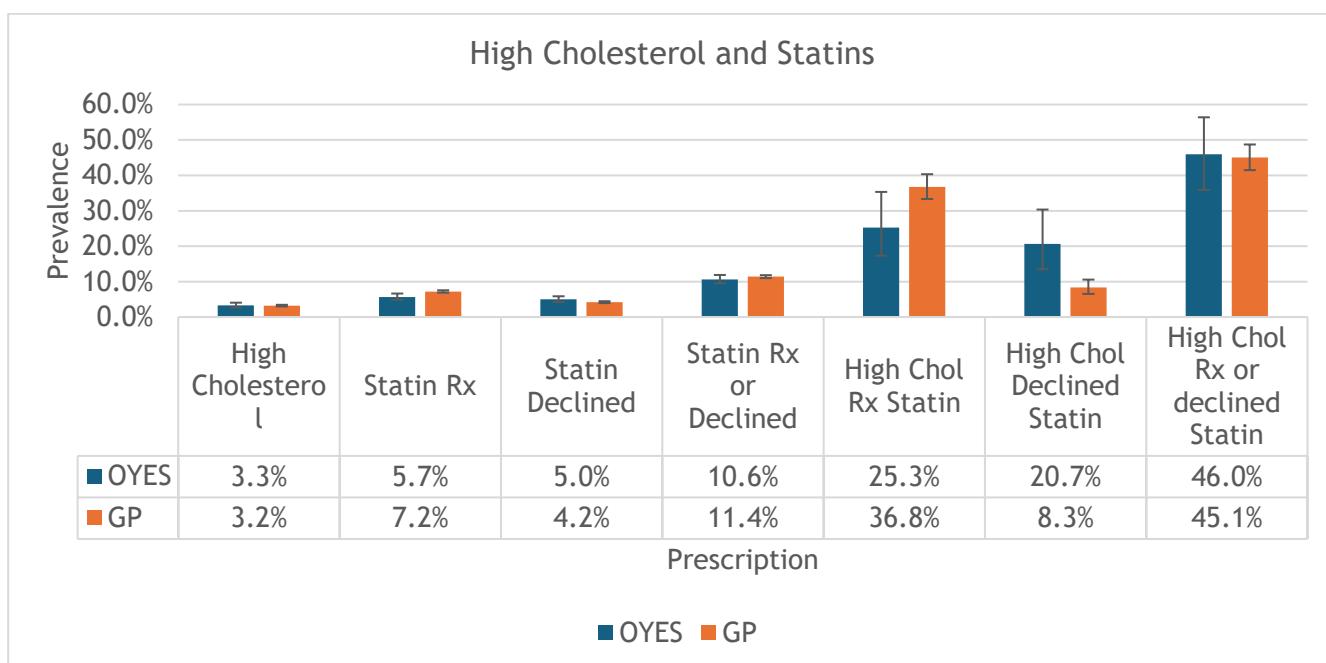
Figure 9: QRISK and Statin Outcomes

5.2.7 High Cholesterol

As prescribing decisions are typically made within general practice, GP-delivered Health Checks may be more likely to result in immediate statin prescribing and coding, whereas OYES-identified patients may receive treatment following onward referral, which is not consistently captured within the Health Check dataset. Conversely, OYES patients are significantly more likely to decline statins when diagnosed with high cholesterol versus GP patients. These differences suggest variation in prescribing practices and patient decision-making between the two pathways.

The statistically significant differences in accepting versus declining statin prescription among patients with high cholesterol suggest potential variation in how patients are engaged and supported across pathways. This may reflect differences in communication style, appointment context, or the characteristics of the patient cohorts themselves.

It is recommended to further investigate the factors influencing these outcomes. This could include reviewing communication approaches and exploring whether the cohorts engaged by GP and OYES differ in terms of demographics, health literacy, or readiness to act. Segmenting these cohorts may help identify tailored strategies to support informed decision-making and improve consistency in statin prescribing practices.



5.2.8 Chronic Kidney Disease

Nationally, CKD affects around 10-15% of adults⁽⁴⁹⁾ with approximately 4% recorded in primary care⁽⁵⁰⁾. In contrast, local data indicates that only 0.2% of individuals were coded as having CKD following an NHS Health Check, suggesting significant underdiagnosis or under-recording in primary care, or that relevant data are recorded elsewhere and not visible in this dataset.

Analysis of CKD risk factors and follow-up testing shows that 24.4% of the cohort had high blood pressure. Overall, 44.3% of the cohort had serum creatinine measured. Among individuals with high blood pressure, 51.9% went on to receive a serum creatinine test to assess for CKD; however, only 0.4% of this group were subsequently diagnosed with CKD. Where CKD was diagnosed, 94.2% had serum creatinine recorded, indicating that once identified, kidney function monitoring is generally captured.

Overall, these findings highlight a difference between expected and recorded CKD prevalence and suggest there may be missed opportunities to detect CKD in at-risk individuals. Enhanced testing and systematic recording are likely needed to improve identification and management of CKD locally.

Provider	Risk Factor	Denominator	Numerator	Proportion	Lower CL (95%)	Upper CL (95%)
All	High Blood Pressure	25,108	6,123	24.4%	23.9%	24.9%

All	Serum Creatinine	25,108	11,113	44.3%	43.6%	44.9%
All	CKD Diagnosed	25,108	52	0.2%	0.2%	0.3%
All	High BP With Serum Creatinine	6,123	3,178	51.9%	50.7%	53.2%
All	High BP With CKD Diagnosed	6,123	25	0.4%	0.3%	0.6%
All	CKD Diagnosed with Serum Creatinine	52	49	94.2%	84.4%	98.0%
All	CKD with HIGH BP AND Serum Creatinine	52	12	23.1%	13.7%	36.1%

Table 8: Chronic Kidney Disease Prevalence

6. How equitable is the NHS Health Check Programme?

6.1 Targeted Patient Invitation Uptake

In 2021, targeted patient groups were introduced into the NHS Health Check programme specifically to GP delivered NHS Health Checks to support its restart following the COVID-19 pandemic and to help address health inequalities.

The following groups were identified as priority populations eligible for enhanced payments:

- Individuals living in Index of Multiple Deprivation (IMD) decile 1 areas.
- Current smokers
- People from an ethnic minority background
- Individuals living with a severe mental illness (SMI)
- Individuals with a learning disability

Between 2022 and 2024, there was an increase in the number of invites to all eligible patients, totalling nearly 71,000 invites over this two-year period. Analysing the factors driving this increase reveals a complex picture.

While the largest group, 'non-targeted' patients, saw a decline in invites (from 52,058 to 49,206), the targeted groups experienced growth between 2018-20 and 2022-24. The number of invites to those from Ethnic Minority (EM) groups increased markedly (from 2,612

to 4,424), and those in the most deprived areas (IMD1) also saw a significant rise (from 9,881 to 14,312). Additionally, invites to other focussed population groups, such as those with Learning Disabilities (LD) and Severe Mental Illness (SMI), also increased, although to a lesser extent due to the smaller cohort sizes, from 283 to 285 and also from 953 to 1,184.

When reviewing the percentage change in the number of invites overall, and then by group, it shows that the rise in total number of invites is primarily driven by significant increases in invitations to target groups, specifically those from an EM background, those living in IMD1 areas, and those with a SMI highlighting the impact of financially incentivising the delivery of NHS health Checks for these groups.

The total eligible population for EM grew from 9,285 to 14,153 between 2018-20 and 2022-24 contributing to the increase in number of invites that were made for individuals from an EM background (from 2,612 to 4,424, a 69.4%).

Cohort	2018-20 Invitations	2022-24 Invitations	Percentage Change
Non-target patients	52,058	49,206	-5.5%
Ethnic Minority (EM)	2,612	4,424	69.4%
IMD1 (most deprived areas)	9,881	14,312	44.8%
Severe Mental Illness (SMI)	953	1,184	24.2%
Learning Disabilities (LD)	283	285	0.7%

Table 9: Invitation Uptake by Cohort

6.2 Uptake in Target Populations

Table 9 highlights that in comparison to 2018-20, between 2022-24 there was a significant increase in efforts to prioritise health checks for targeted groups. It is important to note that any rise in completed checks may be proportional to an increase in the TEP for that group. Therefore, a better measure of changes in uptake is the proportion of invited people.

Cohort	2018-20 Checks	2022-24 Checks	Percentage Change
Overall	30,866	27,727	-10.2%
Non-target	22,814	19,759	-13.4%
Ethnic Minority (EM)	1,369	1,771	+29.4%
IMD1	3,705	3,999	+7.9%
Severe Mental Illness (SMI)	169	244	+44.4%

Table 10: Number of NHS Health Checks Attended by Cohort

Between 2018-20 and 2022-24, the number of invites sent to targeted groups increased from 16,462 to 21,788, representing a 7.6% increase. Despite this rise in invitations, uptake among the targeted cohort decreased from 48.9% to 36.6%. Uptake in the non-targeted cohort also declined over the same period, from 43.8% to 40.2%, though the reduction was less pronounced.

Consequently, the proportion of the TEP attending checks fell in both cohorts, with the targeted cohort decreasing from 15.4% to 13.6% and the non-targeted cohort from 8.9% to 7.7%.

Metric	Targeted		Non-targeted	
	2018-20	2022-24	2018-20	2022-24
TEP (Target)	52,251	58,749	255,965	256,128
Invites (to Target)	16,462	21,788	52,058	49,206
% Invited	31.5	37.1	20.3	19.2
Checks	8,052	7,968	22,814	19,759
% Uptake	48.9	36.6	43.8	40.2
% TEP Attending	15.4	13.6	8.9	7.7

Table 11: Number of Invites to Equitably Targeted Cohorts

These trends suggest that while efforts to increase outreach to targeted groups have expanded, additional strategies may be needed to improve engagement, uptake and attendance within these populations.

6.3 Do target population groups have worse CVD outcomes?

Below demonstrates the prevalence of risk factors and conditions across non-target and target population groups following an NHS Health Check. 21.9% of 'non-target' population groups had a BMI over 30. Groups with worse outcomes compared to the 'non-target' population groups are highlighted in red. For instance, 33% of LD patients had a BMI over 30.

	% BMI >30	% Smoker	% HTN	% NDH	% DM	% CKD	% Attended
Non-Target	21.9	11.6	3.07	1.5	0.5	0.21	40.2
EM	21.7	9.5	3	3.7	1.2	0.11	40
IMD1	27.2	22.5	3.05	2.18	1.1	0.13	27.9
LD	33	11.4	0	2.3	0	1.14	30.9
SMI	29.5	29.5	3.7	1.2	0.4	0	20.6
Smoker	20.7	100	3.3	2.19	0.7	0.18	68.3

Table 12: Disease prevalence by groups, including uptake figures by group, 2022-24.

Table 11 aims to identify which risk factors or health outcomes targeted groups perform worse compared to 'non-target' population groups. It also illustrates that a target group may perform well on one risk factor/health outcome but poorly on another. For example, individuals from an EM background have a BMI prevalence in line with 'non-focused' population groups, but their prevalence of NDH and diabetes diagnoses is double that of the 'non-target' population groups. The table also includes a comparison of the proportion of people that attended out of those invited, this shows that most target groups have lower NHS Health Checks uptake rates than 'non-target' population groups apart from the smoker cohort which saw a high percentage of attendance.

6.4 Health Equity Audit

6.4.1 Behavioural Risk Factors

Behavioural Risk Factors by Ethnicity

Analysis of behavioural risk factors by ethnicity highlights differences in smoking and obesity prevalence. Differences may point to the influence of structural and environmental factors, such as access to healthy food, safe opportunities for physical activity, and health promotion messaging. Where confidence intervals overlap, indicating that prevalence is broadly similar; universal approaches alongside proportionate targeted strategies can help ensure equitable health outcomes.

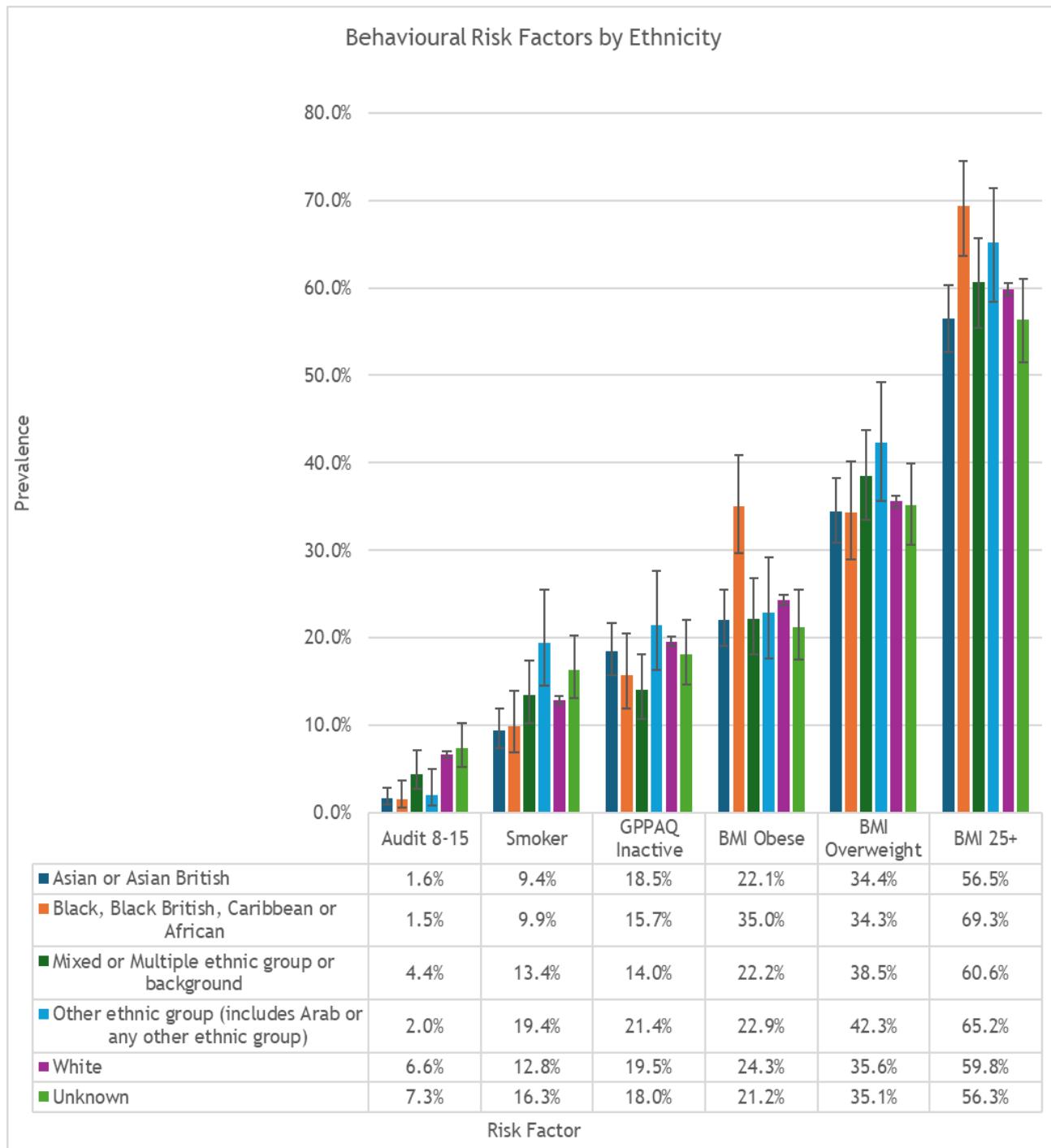


Figure 10: Behavioural Risk Factors by Ethnicity

Behavioural Risk Factors by IMD

Analysis of behavioural risk factors by deprivation (IMD) reveals a social gradient. Smoking prevalence is highest in the most deprived group (IMD 1) at 27.2% and lowest in the least deprived group (IMD 10) at 5.7%, illustrating a strong gradient where greater deprivation is associated with higher prevalence.

Physical inactivity (GPPAQ inactive) is relatively consistent across IMD groups, ranging from 21.6% in IMD 1 to 20.5% in IMD 10. Obesity prevalence shows a clear gradient, with IMD 1 at 31.4% compared with 18.4% in IMD 10, again highlighting higher prevalence in more deprived groups.

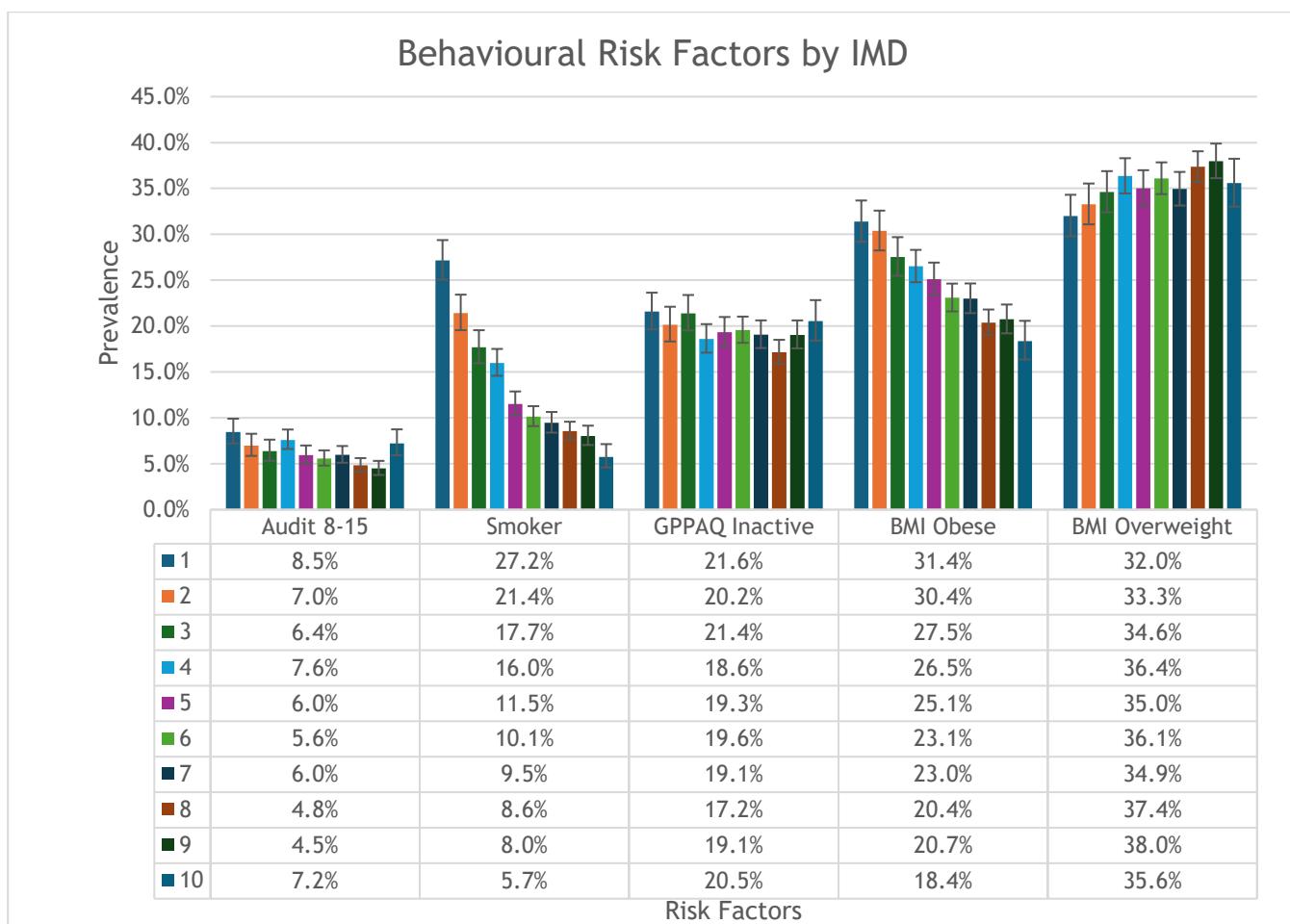


Figure 11: Behavioural Risk Factors by IMD

Furthermore, analysis of combined overweight and obesity (BMI ≥ 25) shows consistently high prevalence across IMD groups, ranging from 54.0% in the least deprived group to 63.6% in the most deprived groups. This indicates a moderate social gradient, with higher prevalence in more deprived populations, though differences are less pronounced than for smoking or obesity alone. Confidence intervals across most groups overlap slightly, suggesting some variability but consistently high levels of overweight and obesity across all deprivation levels.

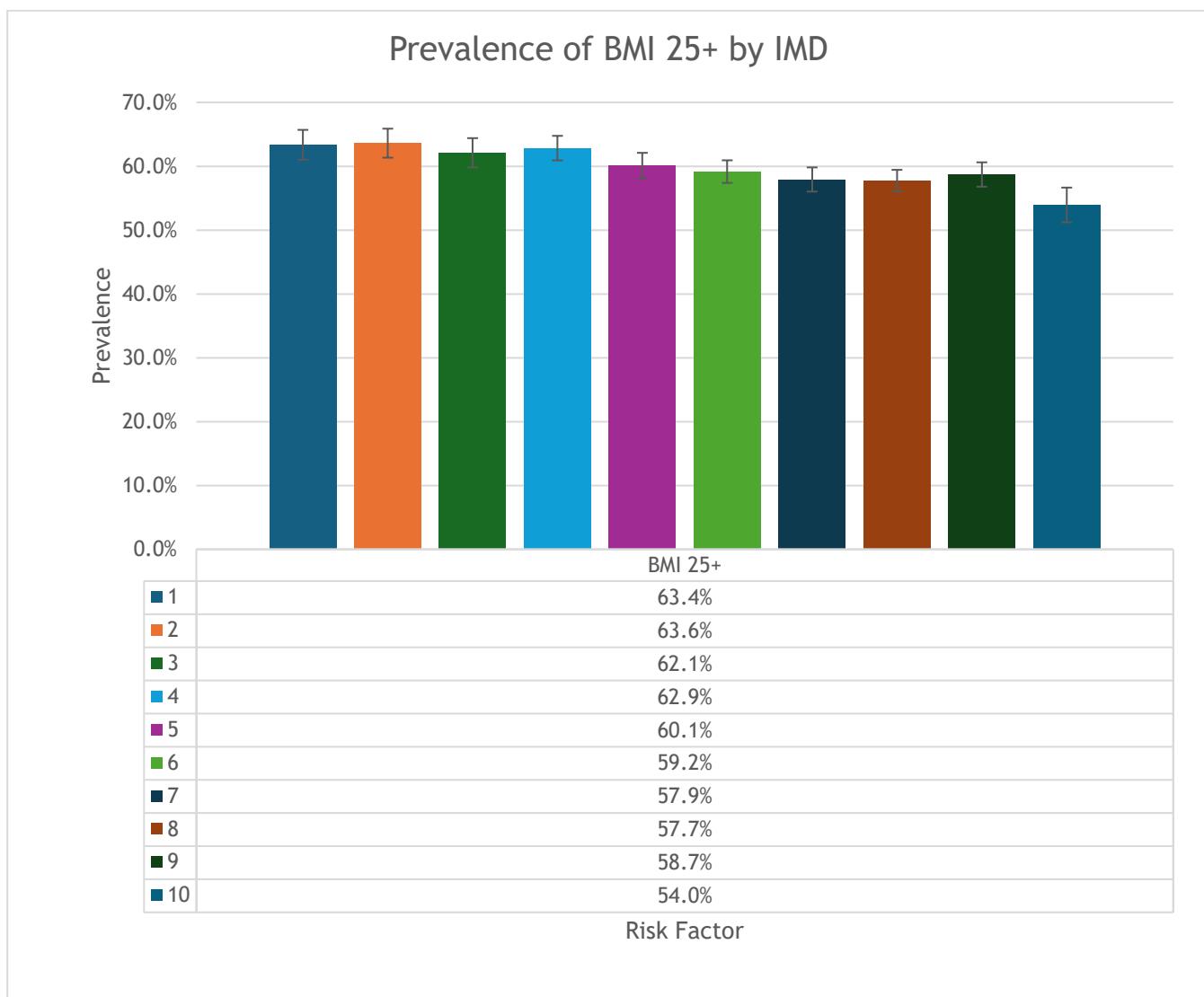


Figure 12: Prevalence of BMI 25+ by IMD

Analysis of behavioural risk factors by deprivation demonstrates the need for a mix of universal and proportionate interventions. For risk factors such as smoking and obesity, prevalence is higher in more deprived groups (IMD 1-2), indicating a need for proportionate support targeting these populations, such as community-based cessation programmes, accessible healthy food initiatives, and increased opportunities for free or subsidised physical activities.

At the same time, physical inactivity and combined overweight/obesity (BMI ≥ 25) are prevalent across all deprivation groups, suggesting that universal interventions, such as public health campaigns and structural policies to promote active living, are also necessary to improve health outcomes for everyone.

This combined approach ensures that resources are allocated proportionately to those with greater need, while maintaining universal strategies to prevent widening inequalities and promote equitable health across all communities.

Behavioural Risk Factors by Age

Analysis of behavioural risk factors by age shows distinct patterns across different measures. Smoking prevalence declines with age, from 17.1% in the 40-44 age group to 6.1% in the 70-74 age group. In contrast, physical inactivity (GPPAQ inactive) increases with age, from 15.7% in 40-44-year-olds to 30.0% in the 65-69 group. Obesity prevalence peaks in mid-life (29.7% in 50-54 age group) and declines in older age groups, while overweight prevalence remains relatively stable across age groups, slightly increasing in mid-life and older adults. For combined overweight and obesity (BMI ≥ 25), prevalence is highest in the 50-54 age group (65.6%) and gradually decreases with age, reaching 52.0% in the 70-74 group. These findings suggest that interventions should be tailored to age-related patterns, with a focus on smoking prevention and cessation in younger adults, weight management in mid-life, and physical activity promotion in older adults.

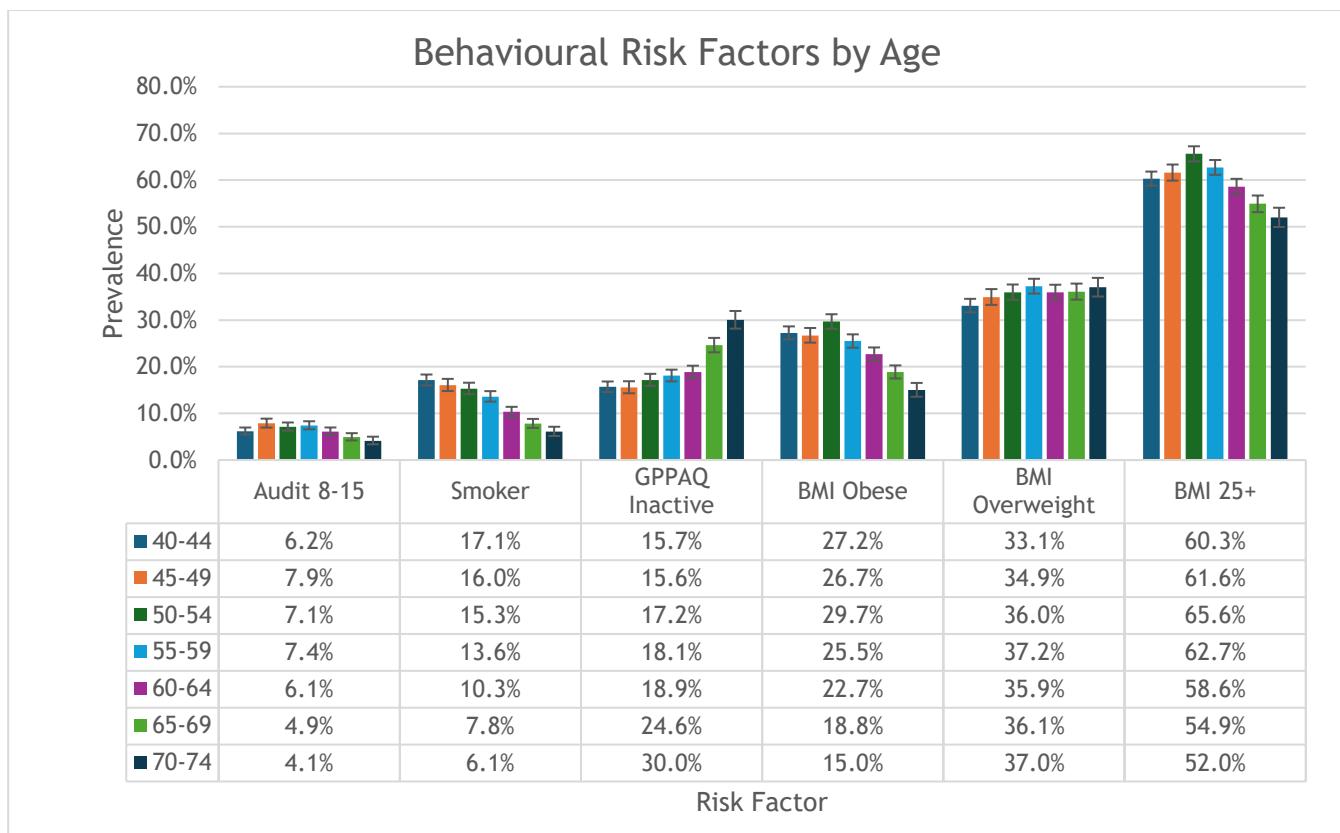


Figure 13: Behavioural Risk Factors by Age

Behavioural Risk Factors by Gender

Analysis of behavioural risk factors by sex shows clear differences between males and females. Smoking prevalence is higher in males (15.2%) than females (11.1%). Physical inactivity (GPPAQ inactive) is higher in females (21.5%) than males (16.3).

Obesity prevalence (BMI ≥ 30) is slightly higher in females (25.3%) than males (22.8%), in contrast overweight prevalence (BMI 25-29.9) is higher in males (43.9%) than females

(29.7%). When considering combined overweight and obesity (BMI ≥ 25), males have a higher overall prevalence (66.7%) compared with females (55.0%). Although females are more likely to have obesity, overall males are more likely to be an unhealthy weight.

These patterns indicate that interventions could benefit from being tailored by sex, with a focus on reducing smoking in males, promoting physical activity in females, and addressing overweight and obesity in both sexes.

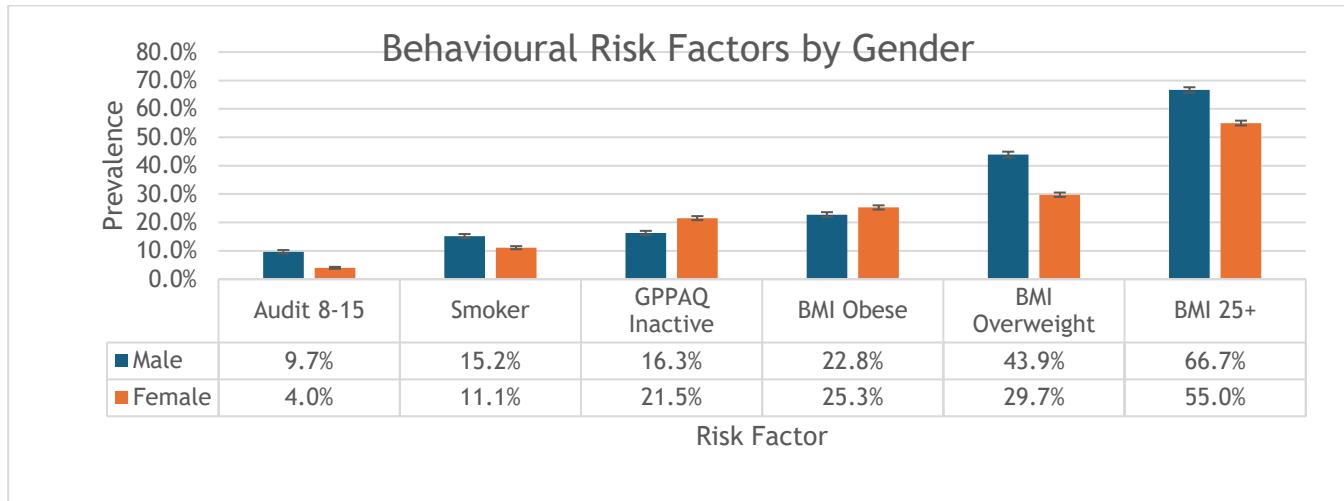


Figure 14: Behavioural Risk Factors by Gender

6.4.2 Clinical Risk Factors

6.4.3 High cholesterol

Statin Prescription by Sex

Following a high cholesterol result during an NHS Health Check, a higher proportion of males accept and are prescribed statins (40.6%) compared with females (33.2%). In contrast, females are more likely to decline statin prescription (11.5%) than males (5.6%). These patterns suggest differences between males and females in the acceptability of statin prescriptions. This highlights the need for further understanding of why females are more

likely to decline statin prescription than males and the potential development of tailored strategies to improve uptake.

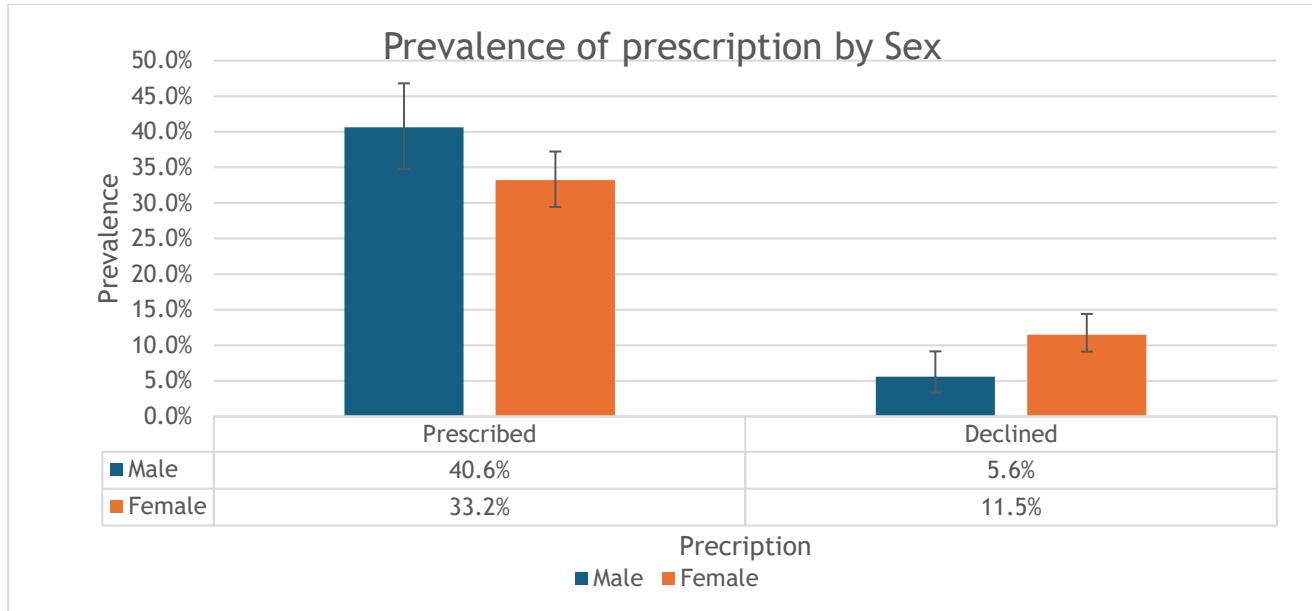


Figure 15: Prevalence of Statin Prescription and Declines by Sex - High Cholesterol

Statin Prescription by Age

Acceptance of statin prescription increases with age, from 17.9% in the 40-44 age group to 45.9% in the 70-74 group. In contrast, declining a statin prescription remains relatively low in for individuals aged 40-64 (around 5-6%) then rising for those aged 65+, reaching 22.4%-32.3%.

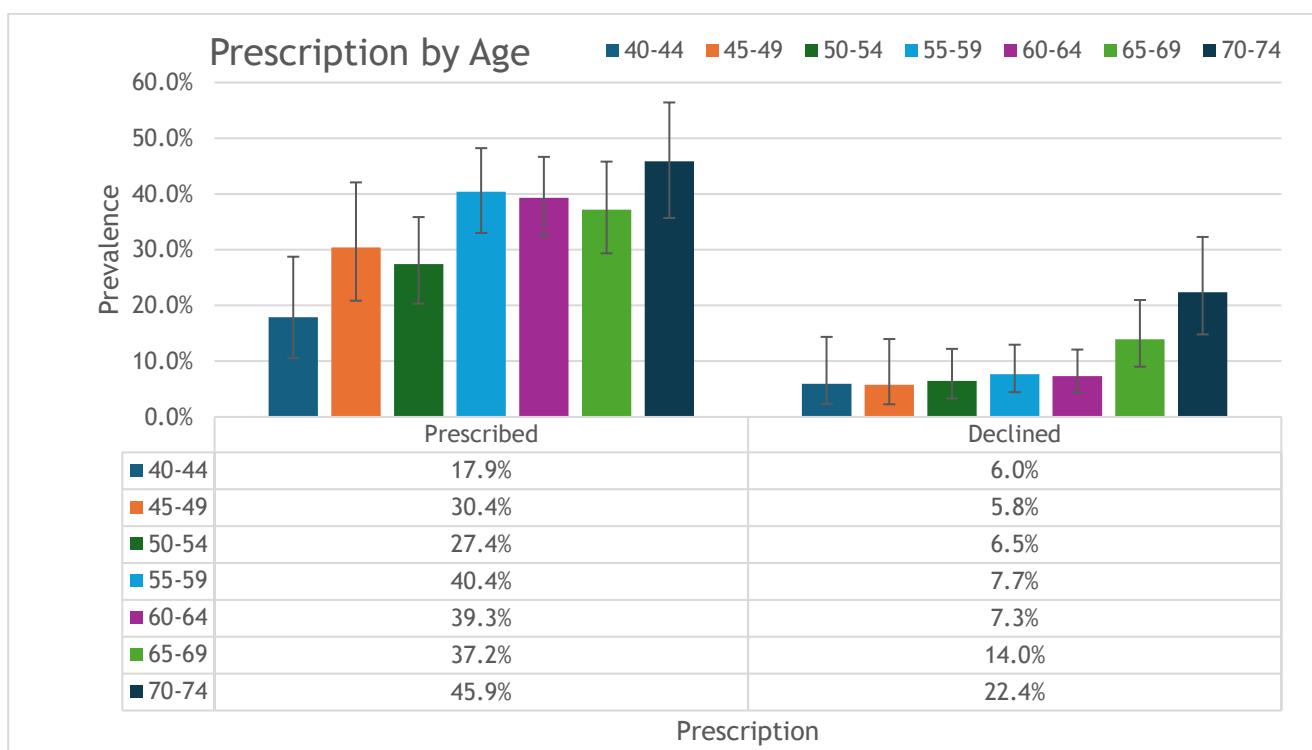


Figure 16: Statin Prescription and Declines by Age - High Cholesterol

Statin Prescription by IMD

Statin prescription and declines by deprivation vary across IMD deciles. Prescription rates are generally higher in more deprived groups, ranging from 35.9% in IMD 1 to 17% in IMD10, though some fluctuation exists. Interestingly, 25% of individuals in IMD1 declined a statin prescription, with those in higher IMD areas less likely to decline a prescription. Given the high rates of accepting and declining a statin prescription for those living in IMD1 areas it may suggest that individuals in these areas have higher rates of high cholesterol than the rest of the local population. However, this would require further investigation. Targeted

interventions in these areas to increase awareness of the impact and side effects of high cholesterol, and how individuals can manage and treat this may be prudent.

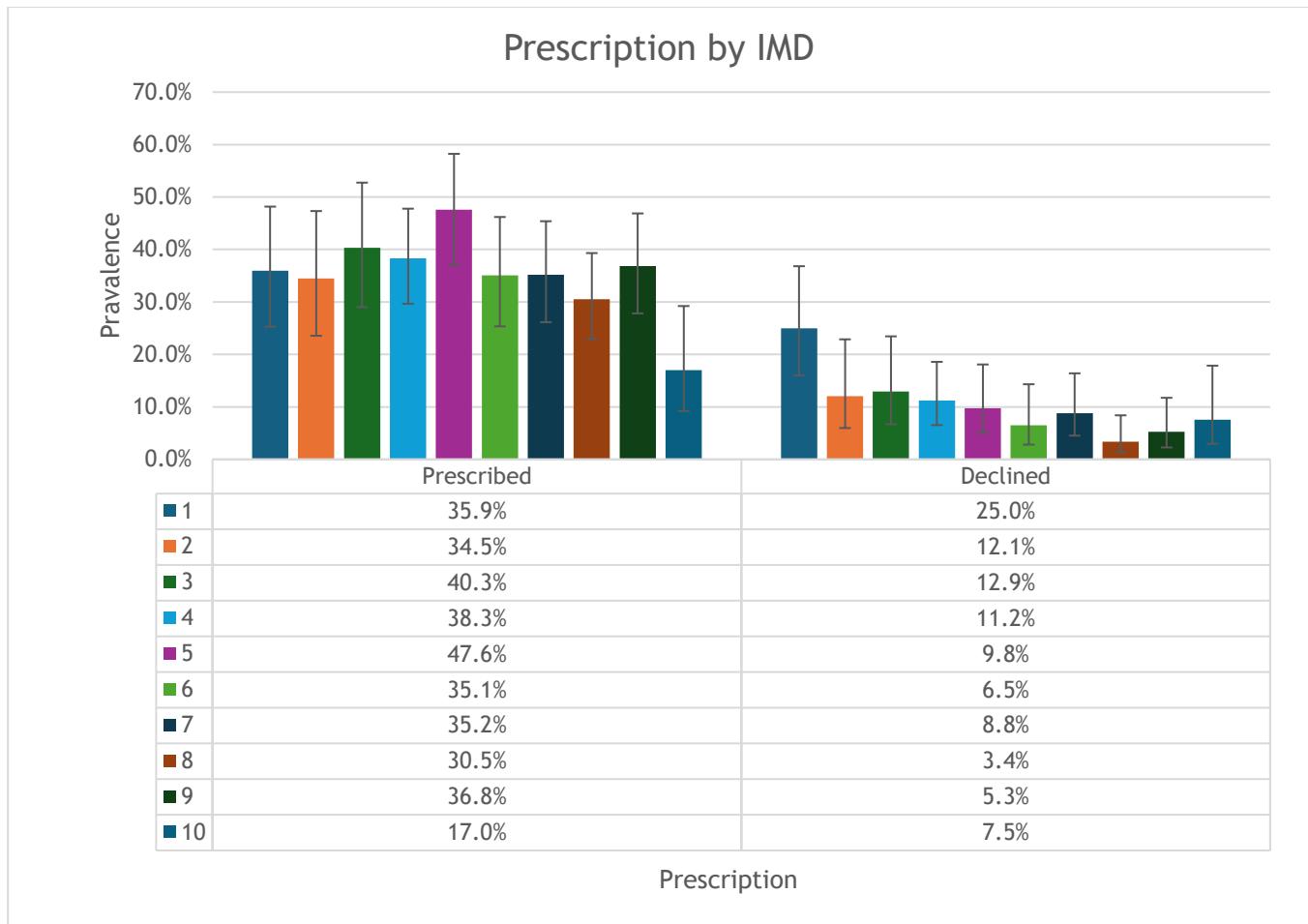


Figure 17: Statin Prescription and Declines by IMD - High Cholesterol

Statin Prescription by Ethnicity

Ethnicity shows variation in both accepting and declining a statin prescription. Prescription rates are highest among individuals identifying as White (36.5%) and Mixed/Multiple ethnic groups(42.9%), while individuals identifying as Black, Black British, Caribbean or African have lower recorded prescription rates (11.1%). Declining statins is most common in Other ethnic groups (25.0%) and shows wide confidence intervals across several smaller ethnic groups, reflecting small sample sizes and uncertainty.

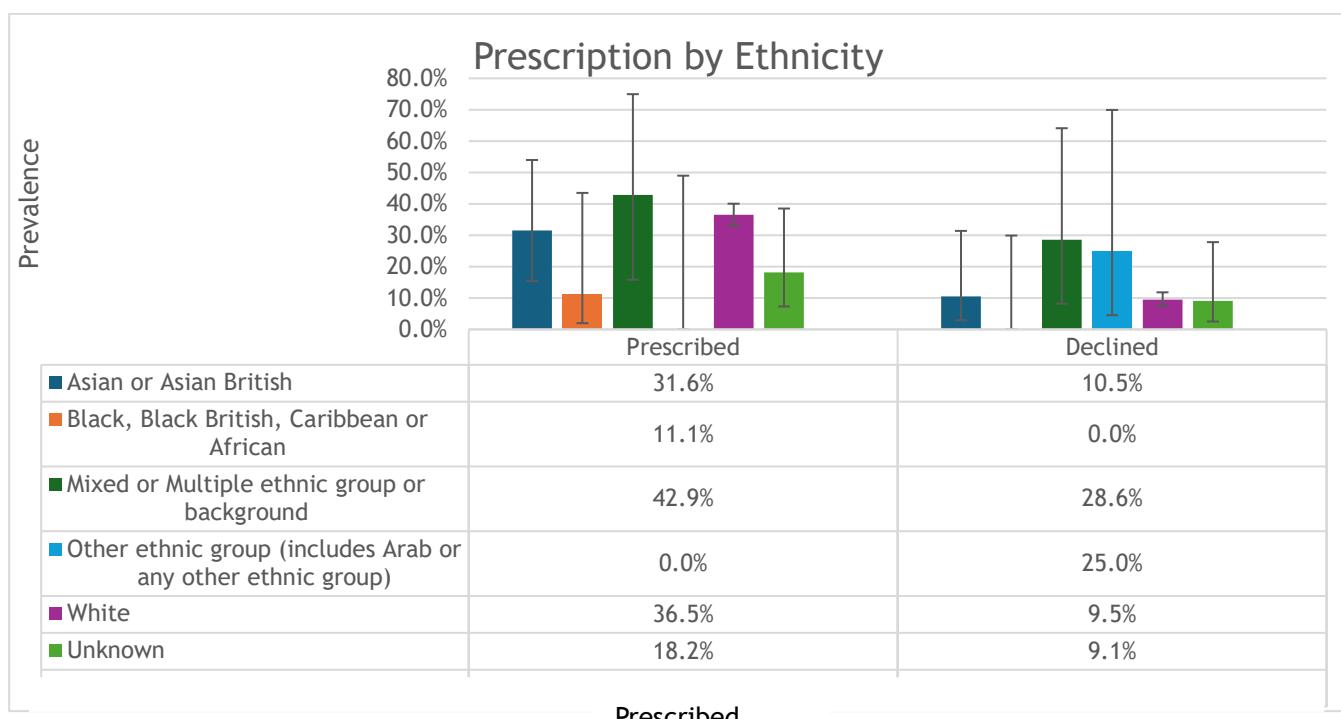


Figure 18: Statin Prescription and Declines by Ethnicity - High Cholesterol

6.4.4 QRISK 10-20

Statin Prescription by Sex

Following a QRISK 10-20 result during an NHS Health Check females are more likely than males (16.0% versus 14.6% respectively) to accept a statin prescription. Females are also more likely to decline a statin prescription (11.8%) compared with males (9.7%).

Although differences are not statistically significant, the data shows that females with a QRISK score of 10-20% are slightly more likely than males to both accept and decline a statin prescription. This is notable because QRISK is weighted to reflect higher cardiovascular risk in males, yet in East Sussex females show a similar or slightly higher prevalence in this risk category. A plausible explanation is that females may be more engaged in preventive healthcare and shared decision-making, leading to a greater likelihood of actively choosing either to start or to refuse treatment. This pattern suggests potential gender differences in how people interact with cardiovascular prevention, which may merit further exploration.

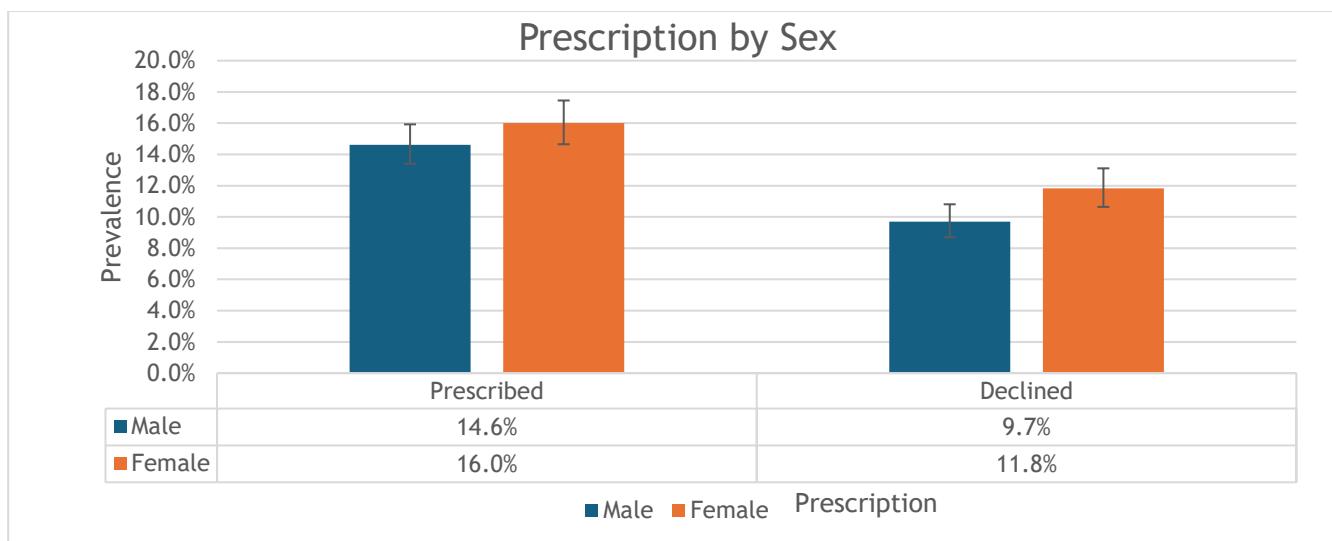


Figure 19: Statin Prescription and Declines by Sex - QRISK 10-20

Statin Prescription by Age

Analysis by age shows that prescription rates are highest among 50-54-year-olds (18.5%) and generally decline slightly in older age groups, reaching 13.9% in 70-74-year-olds. In contrast,

decline rates increase with age, from 0.0-5.8% in the youngest group (40-44) to 12.6% in the oldest group (70-74).

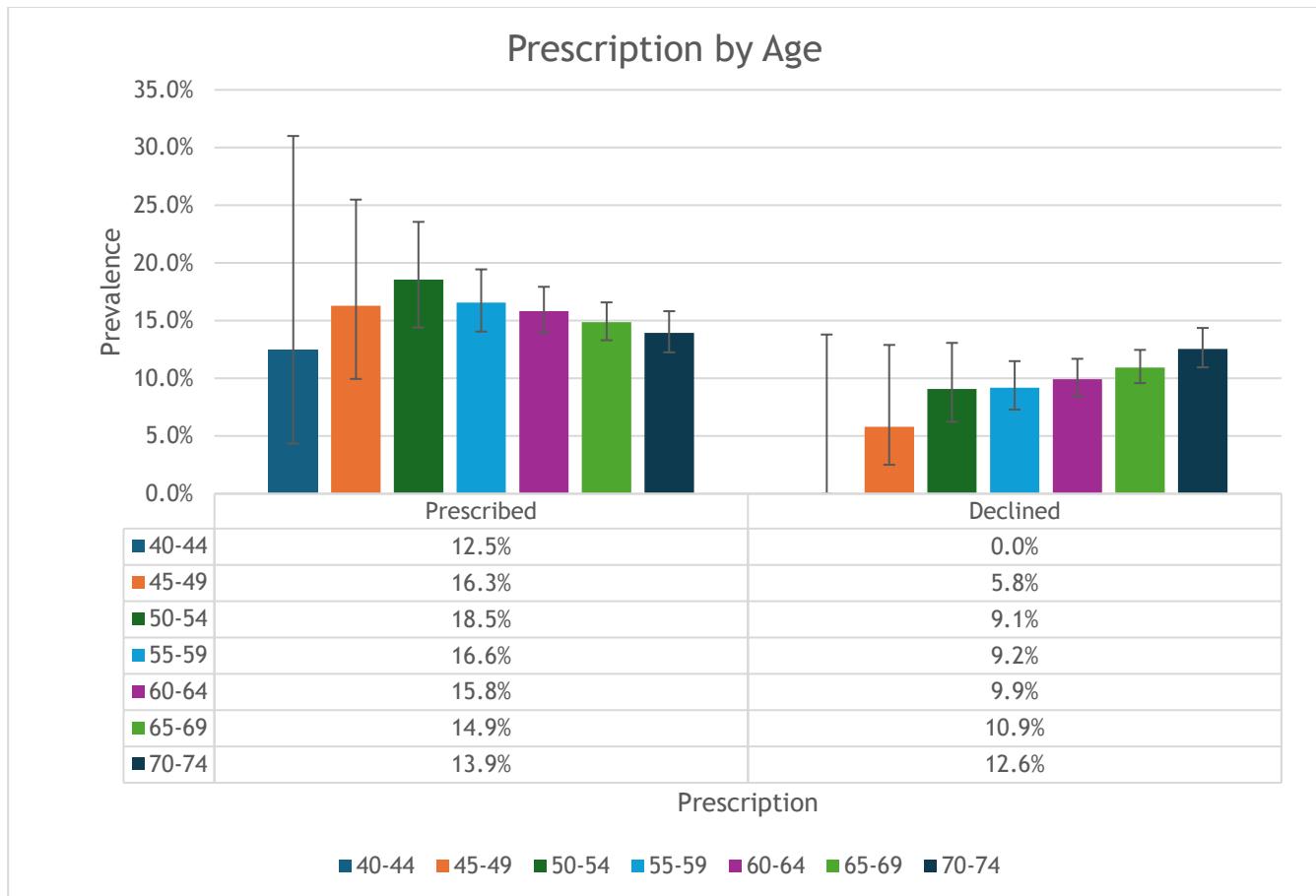


Figure 20: Statin Prescription and Declines by Age - QRISK 10-20

Statin Prescription by IMD

Analysis by deprivation shows that prescription rates are relatively consistent across most deciles, ranging from 11% (IMD 10) to 18.2% (IMD 5). There appears not to be a noticeable trend in rates of declining a statin. With individuals in IMD 2 having the lowest rate (6.7%) versus individuals in IMD 4 having the highest (14%).

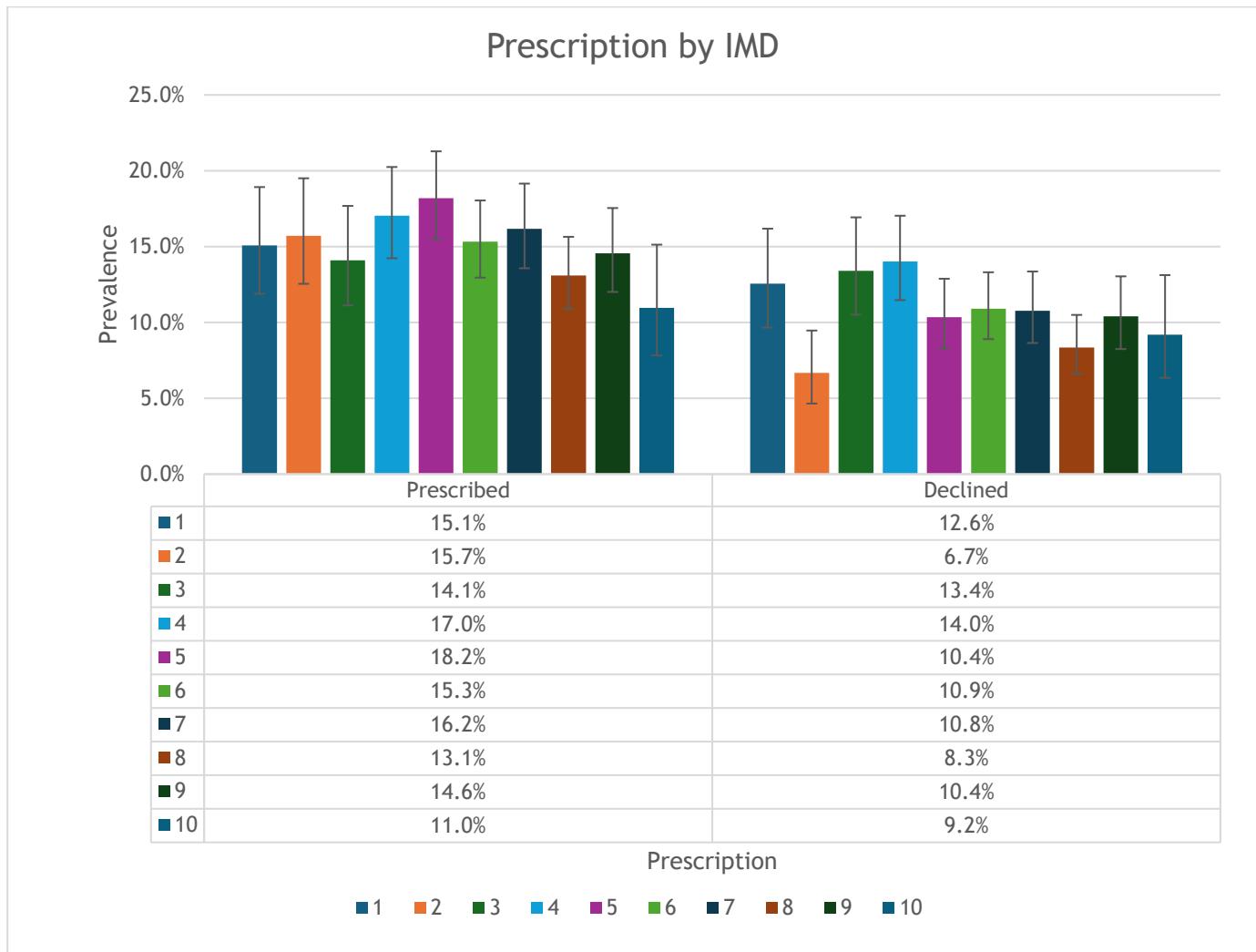


Figure 21: Statin Prescription and Declines by IMD Areas - QRISK 10-20

Statin Prescription by Ethnicity

Ethnicity shows that prescription rates are broadly similar across groups, ranging from 6.3% in Black, Black British, Caribbean or African individuals to 16.1% in Mixed or Multiple ethnic group individuals, with wider confidence intervals in smaller populations such as Asian or Asian British (11.8%) and Other ethnic groups (16.5%). Rate of declining a statin also shows no consistent pattern by ethnicity, though slightly higher declines are observed in the Unknown category (16.4%).

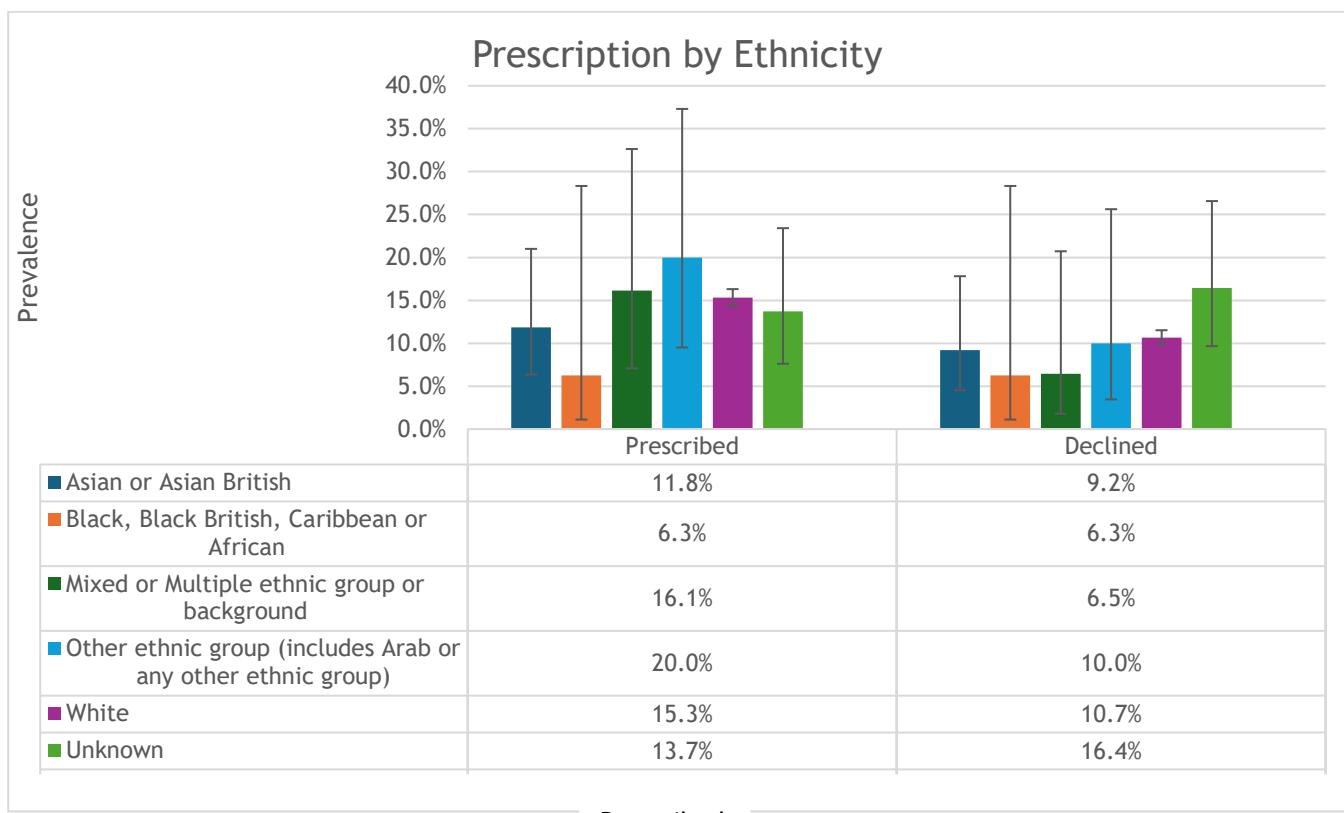


Figure 22: Statin Prescription and Declines by Ethnicity - QRISK 10-20

6.4.5 QRISK 20+

Statin Prescription by Sex

Analysis by sex shows that females are slightly more likely to be prescribed (37.0%) compared with males (31.2%), while decline rates are broadly similar between males (12.9%) and females (13.6%).

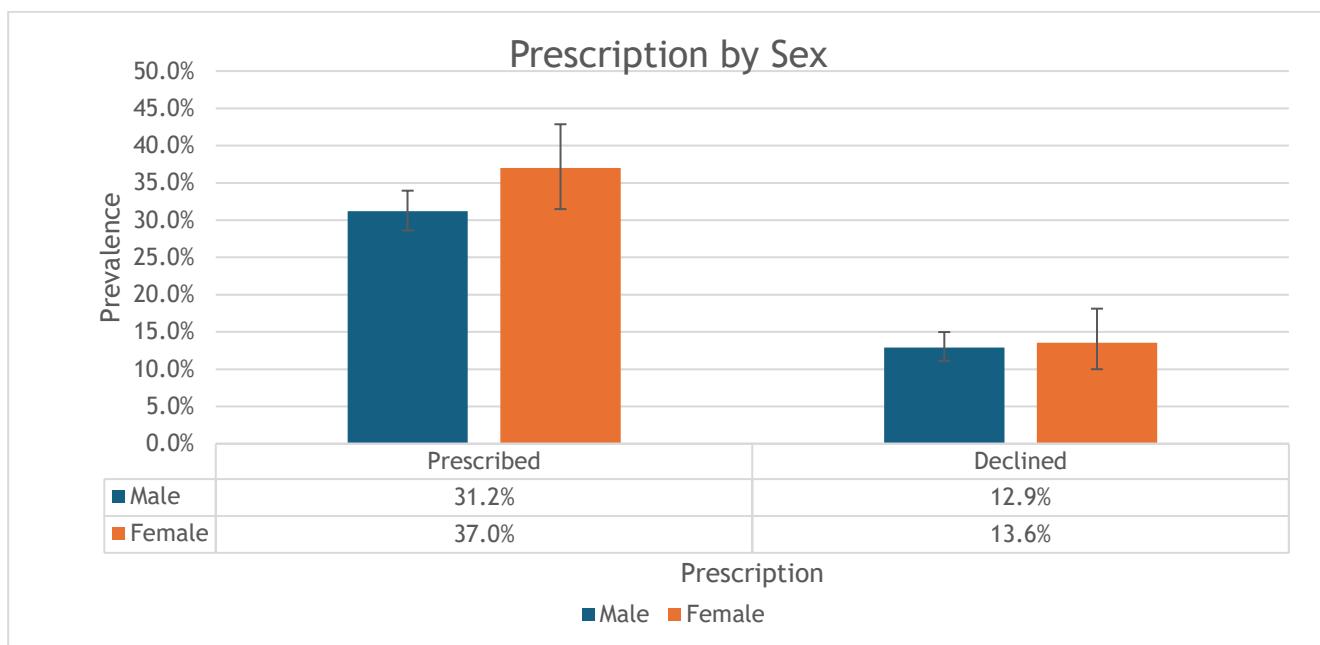


Figure 23: Statin Prescription and Declines by Sex - QRISK 20+

Statin Prescription by Age

Among individuals with QRISK ≥ 20 , prescription increases with age, from negligible uptake in the 40-44 age group (0%) to a peak around 60-64 years (37%), suggesting that older adults at high cardiovascular risk are more likely to be offered or accept interventions. Declination rates are relatively low overall but rise slightly with age, reaching around 15% in those aged 70-74, indicating that most high-risk individuals do engage with preventive opportunities. The data highlights that mid-life adults (50-64) represent a key group where targeted strategies could further improve uptake and ensure timely risk management before older age.

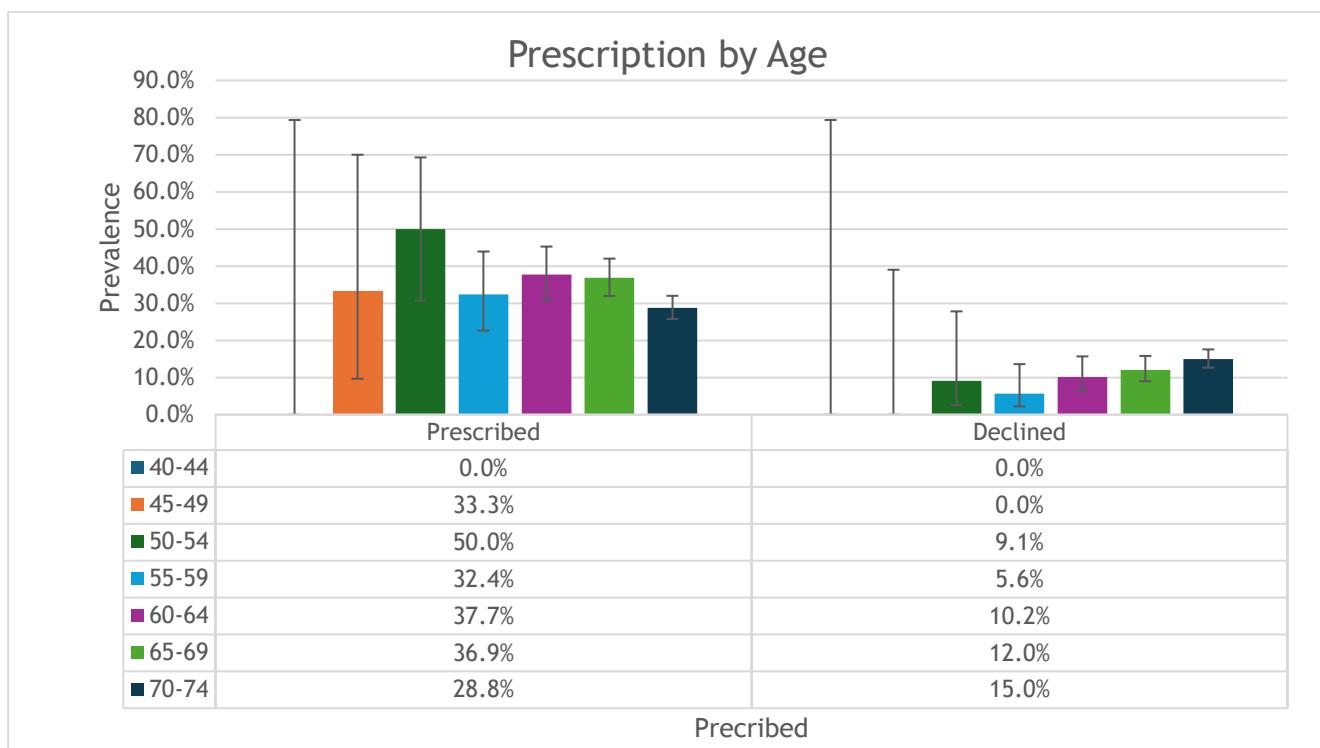


Figure 24: Statin Prescription and Declines by Age - QRISK 20+

Statin Prescription by IMD

Prescription uptake is generally higher in the middle deprivation groups (IMD 3-5), peaking at 42.3% in IMD 4, while both the most deprived (IMD 1) and least deprived (IMD 10) groups have lower uptake (29.4% and 21.7% respectively). Declination rates are somewhat higher in the most deprived (11.0%) and least deprived (20.0%) groups, suggesting that uptake is not strictly linear with deprivation. There is also notable variability across groups, highlighting potential inequalities in acceptance of preventive interventions based on socio-economic status.

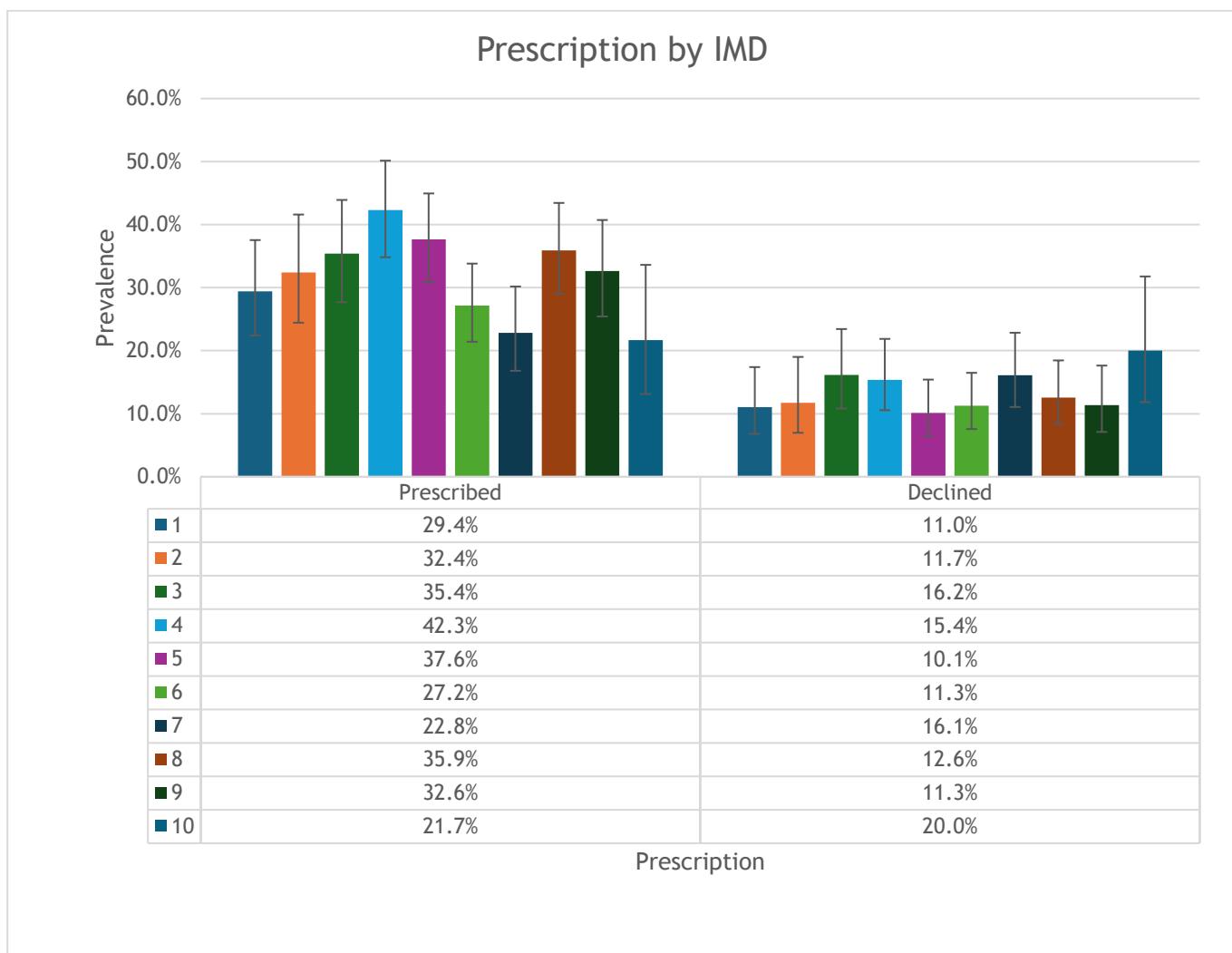


Figure 25: Statin Prescription and Declines by IMD - QRISK 20+

Statin Prescription by Ethnicity

Analysis of prescription uptake for individuals with QRISK ≥ 20 shows notable variation by ethnicity. Asian or Asian British and Mixed/Multiple ethnic groups demonstrate moderate engagement, with around 18-45% prescribed treatment, whereas Black, Black British, Caribbean or African individuals show negligible recorded prescriptions, suggesting potential under-engagement, barriers to access, or incomplete recording. White individuals exhibit intermediate uptake at around 32%, while declination patterns further highlight differences in how groups respond to offers of preventive treatment.

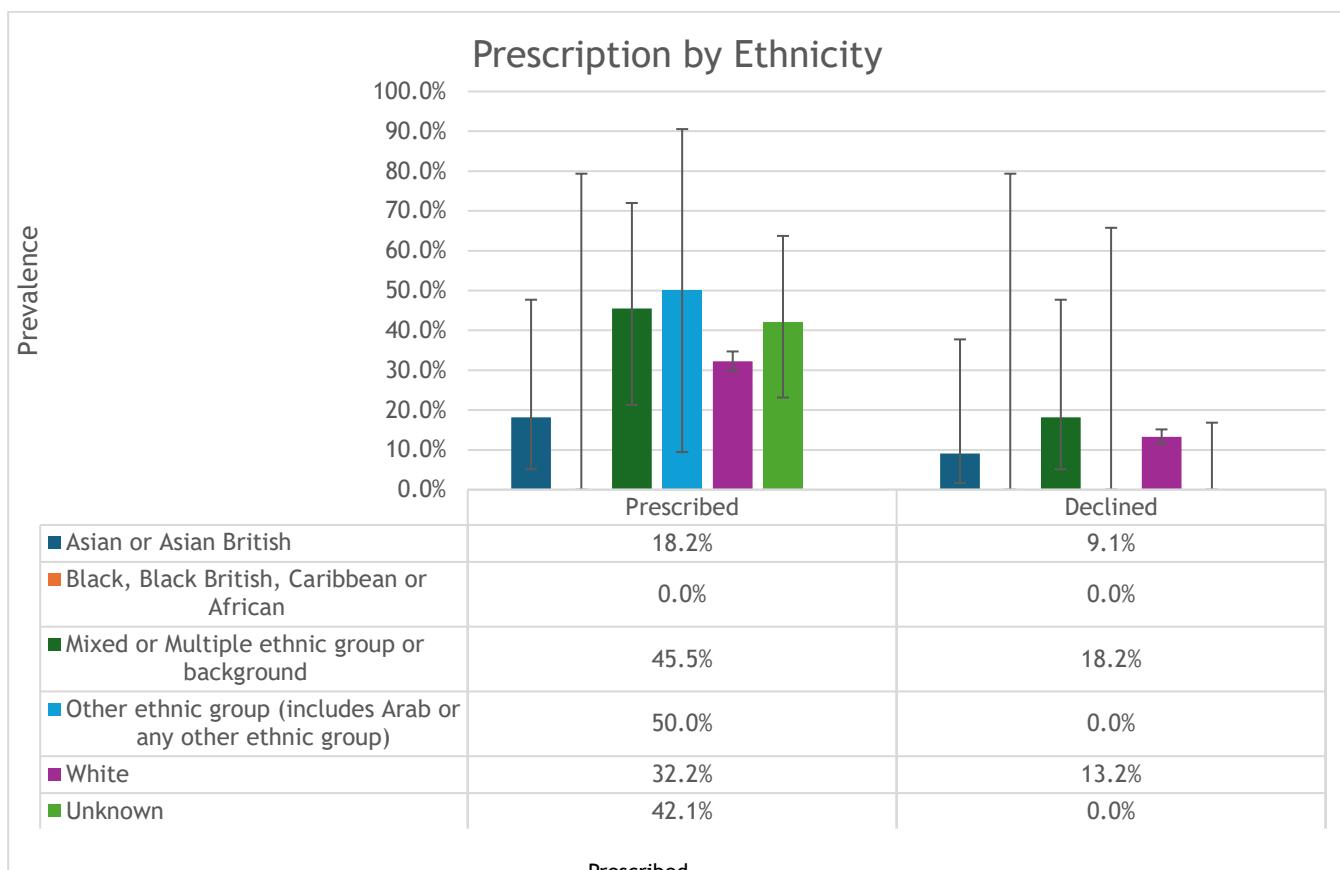


Figure 26: Statin Prescription and Declines by Ethnicity - QRISK 20+

6.4.6 High blood pressure

This data includes those who have a high blood pressure, have a high blood pressure at follow-up, prescribed antihypertensive medication, followed by a serum creatinine test and then had a formal diagnosis that is treated to target.

High Blood Pressure by Sex

High blood pressure prevalence differs by sex, with a higher proportion observed among males (30.5%) compared with females (20.0%). Despite this difference, follow-up and monitoring appear broadly consistent across sexes, with around 51-53% receiving a repeat blood pressure measurement or a serum creatinine test.

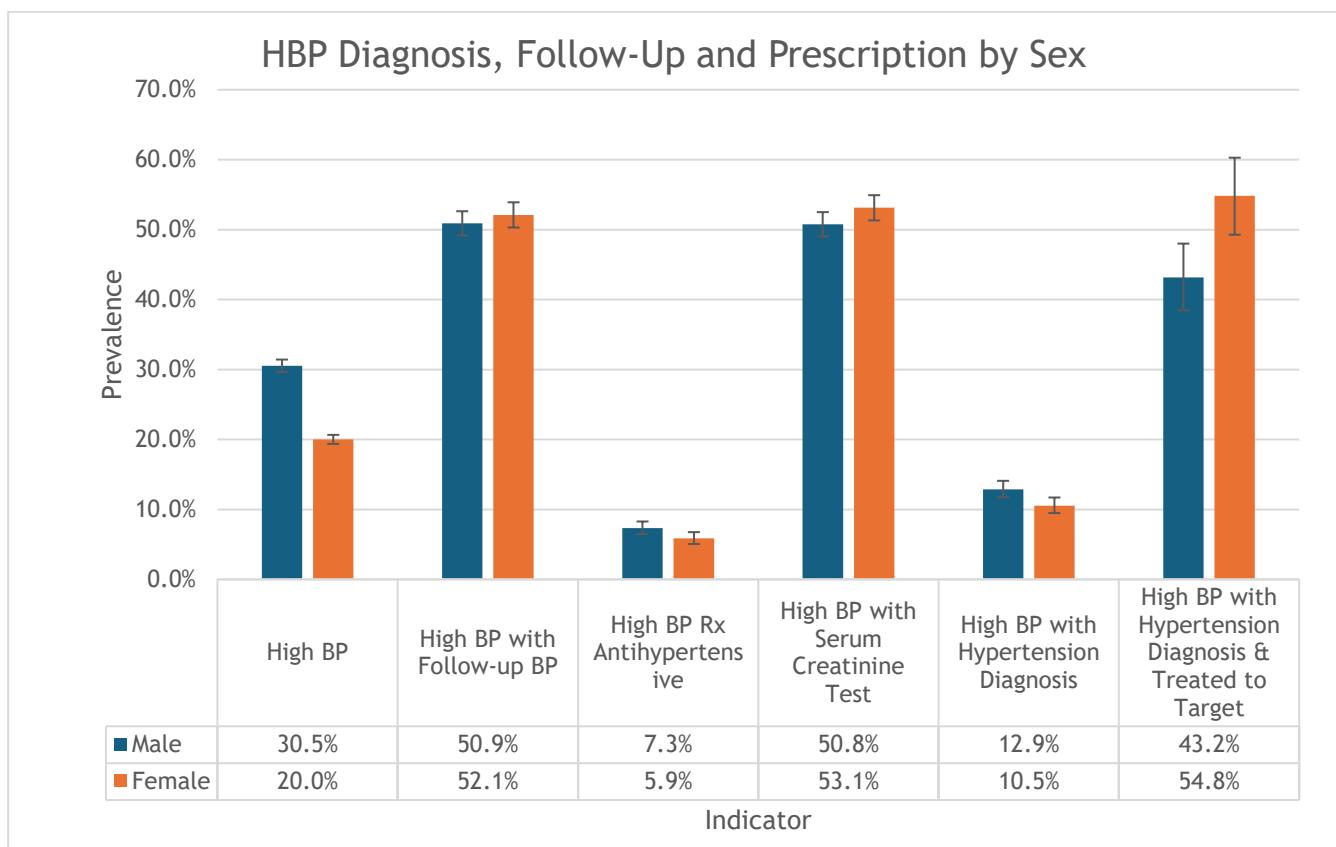


Figure 27: High Blood Pressure: Diagnosis, Follow-up, and Prescription by sex

High Blood Pressure by Age

Prevalence of high BP increases with age, from 14.7% in 40-44-year-olds to 33.4% in 70-74-year-olds. Monitoring (follow up BP and serum creatinine tests) improves with age, reaching around 55% in the oldest groups, suggesting better engagement in older patients. Recorded hypertension diagnoses are modest (7.7-13.0%), but among those diagnosed, treatment to target shows better performance (40-52%), particularly in middle-aged groups, suggesting once diagnosed, management is reasonably effective.

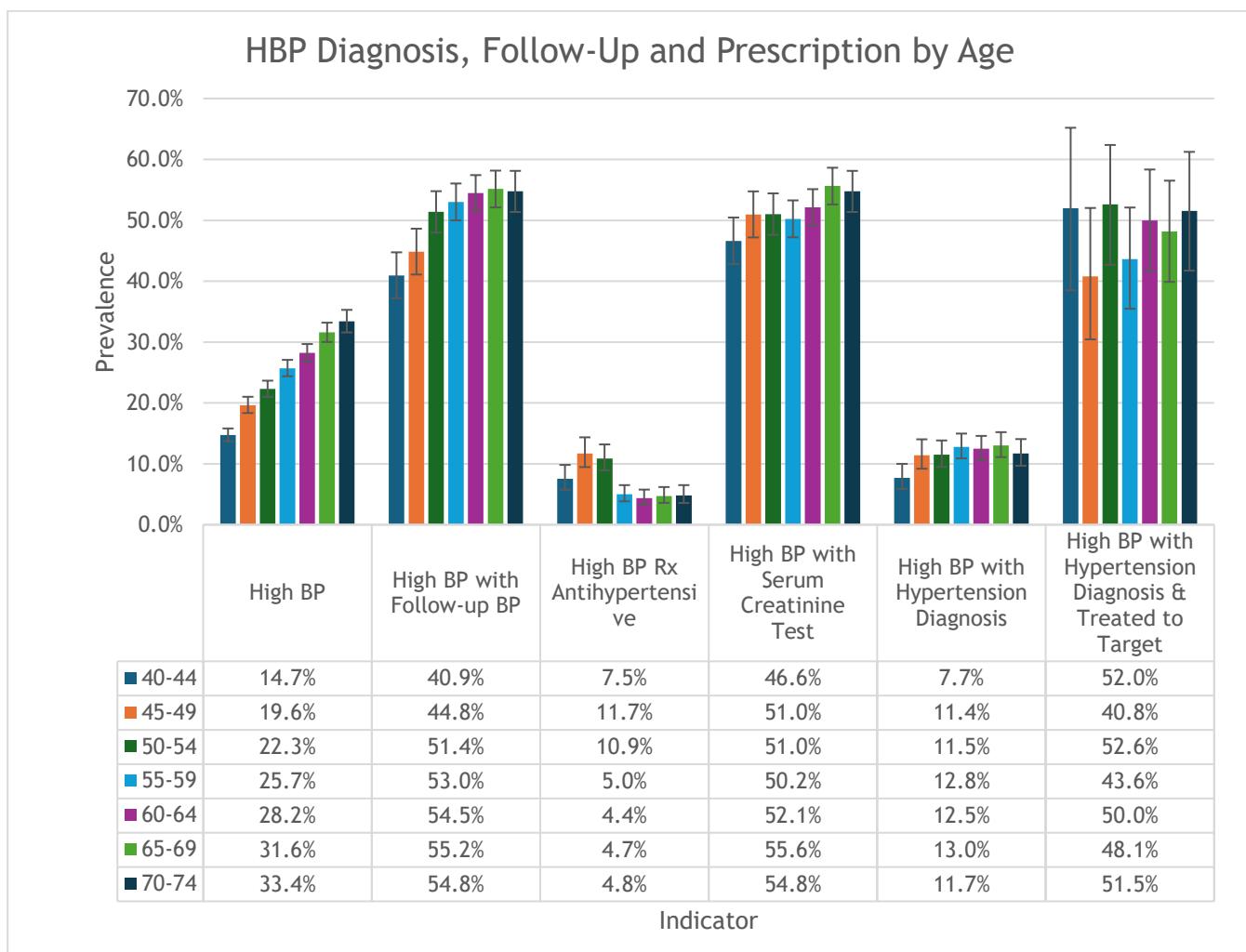


Figure 28: High Blood Pressure: Diagnosis, Follow-up, and Prescription by Age

High Blood Pressure by IMD

High blood pressure prevalence remains relatively consistent across deprivation levels, ranging from 20.7% in IMD2 to 28.2% in IMD10, with only modest variation, suggesting that hypertension risk is widespread across socioeconomic groups. Follow-up testing is reasonably high across all deciles (around 50-60%), indicating consistent clinical engagement regardless of deprivation.

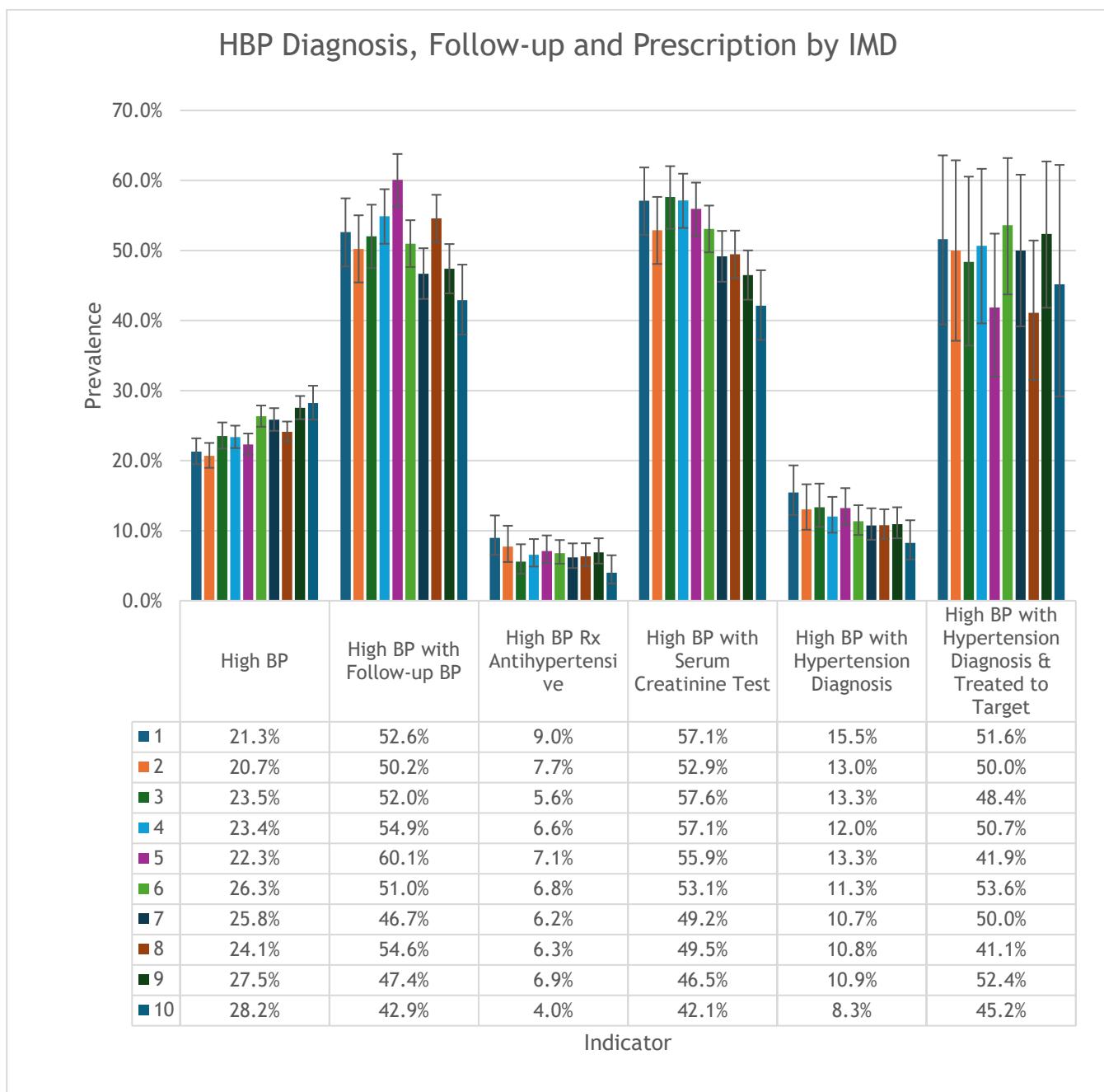


Figure 29: High Blood Pressure: Diagnosis, Follow-up, and Prescription by IMD

High Blood Pressure by Ethnicity

High blood pressure prevalence varies by ethnicity, ranging from 17.0% among those identifying as “Other” to 24.8% among White groups, indicating a slightly higher burden in White populations (East Sussex has a predominantly white population so drawing conclusion when comparing ethnicity might not be accurate). However, diagnosis and treatment patterns show marked variation. Despite broadly similar detection rates, Black and Mixed ethnic groups exhibit higher proportions with a recorded hypertension diagnosis (18.3% and 16.3%), suggesting stronger clinical recognition once identified. Treatment-to-target rates

are highest among Asian and Black groups (71.4% and 63.6%), compared with 47.8% among White groups, indicating that once treated, non-White groups may experience better blood pressure control. However, wide confidence intervals reflect small sample sizes and should be interpreted cautiously. Overall, the data suggest potential inequities in hypertension detection versus management, with variation between ethnic groups in diagnosis and control warranting further exploration.

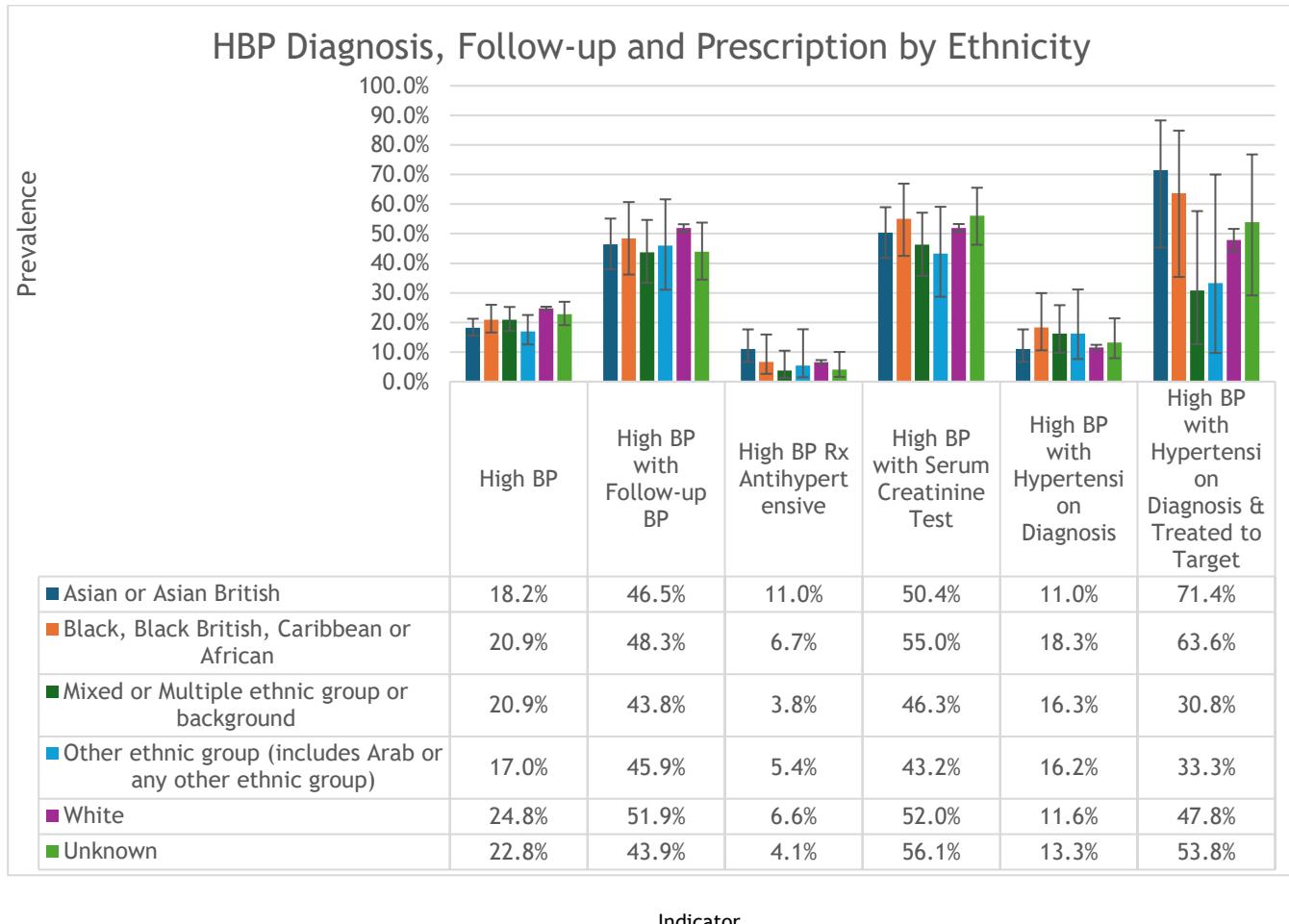


Figure 30: High Blood Pressure: Diagnosis, Follow-up, and Prescription by Ethnicity

6.4.7 Chronic Kidney Disease

To ensure reliability, the only complete data available for evaluation is CKD by sex as the data around Age, IMD, Ethnicity is incomplete.

Chronic Kidney Disease by Sex

This dataset shows that chronic kidney disease diagnosis rates are low for both males and females (0.2%), despite high prevalence of hypertension in East Sussex NHS Health Checks population and availability and acceptance of routine creatinine testing within the wider cohort. Among those diagnosed, half of males (50%) and 47% of females also had high blood

pressure, reflecting the known association between hypertension and CKD. Encouragingly, most individuals diagnosed with CKD had a recorded serum creatinine test (85% of males and 100% of females), indicating good clinical follow-up once identified. However, the low prevalence suggests underdiagnosis or under-recording of CKD within GP Practice datasets.

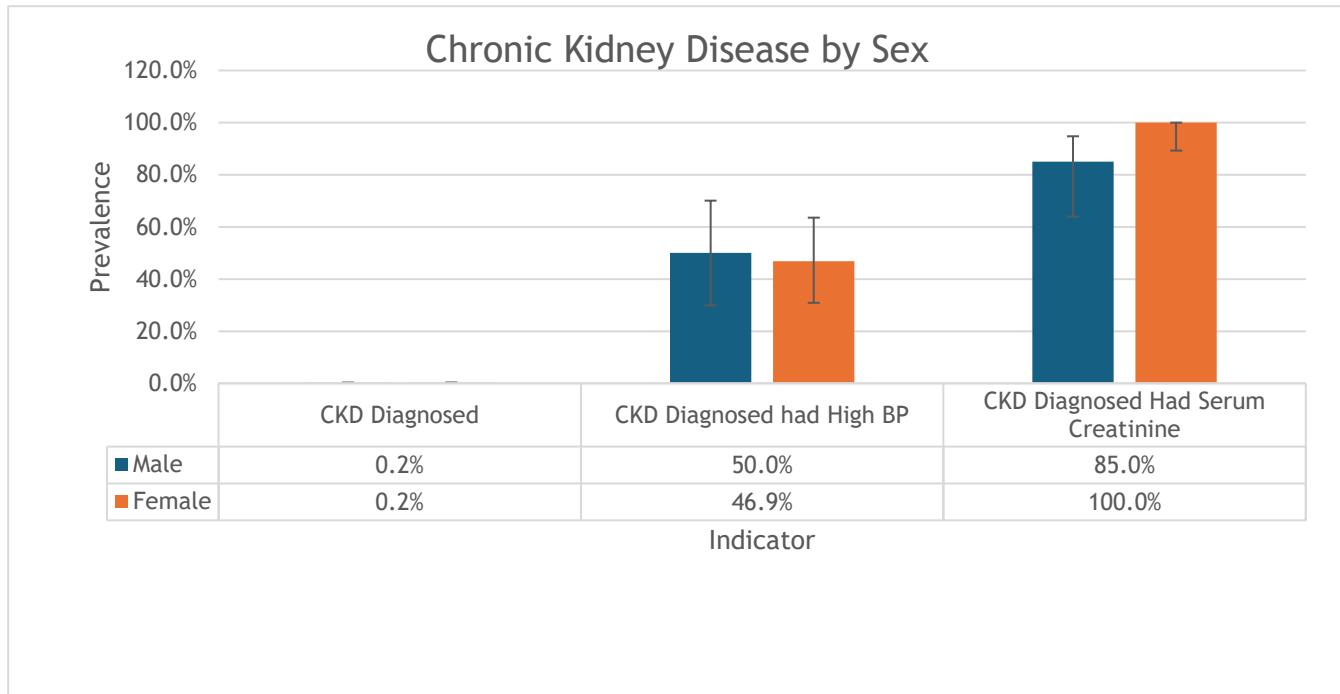


Figure 31: CKD by Sex

6.4.8 High HbA1c

High HbA1c by Sex

This data shows that males have a slightly higher prevalence of elevated HbA1c (5.7%) compared to females (4.2%), suggesting greater risk of hyperglycaemia or undiagnosed diabetes among men. Follow-up rates after an abnormal HbA1c are moderate for both sexes (39-43%), indicating that over half of individuals with elevated HbA1c may not receive timely review. Notably, almost half of males (44%) and one-third of females (34%) with high HbA1c also have high blood pressure, demonstrating clustering of metabolic risk factors. Only about a third of those with raised HbA1c have a recorded Non-Diabetic Hyperglycaemia (NDH) diagnosis.

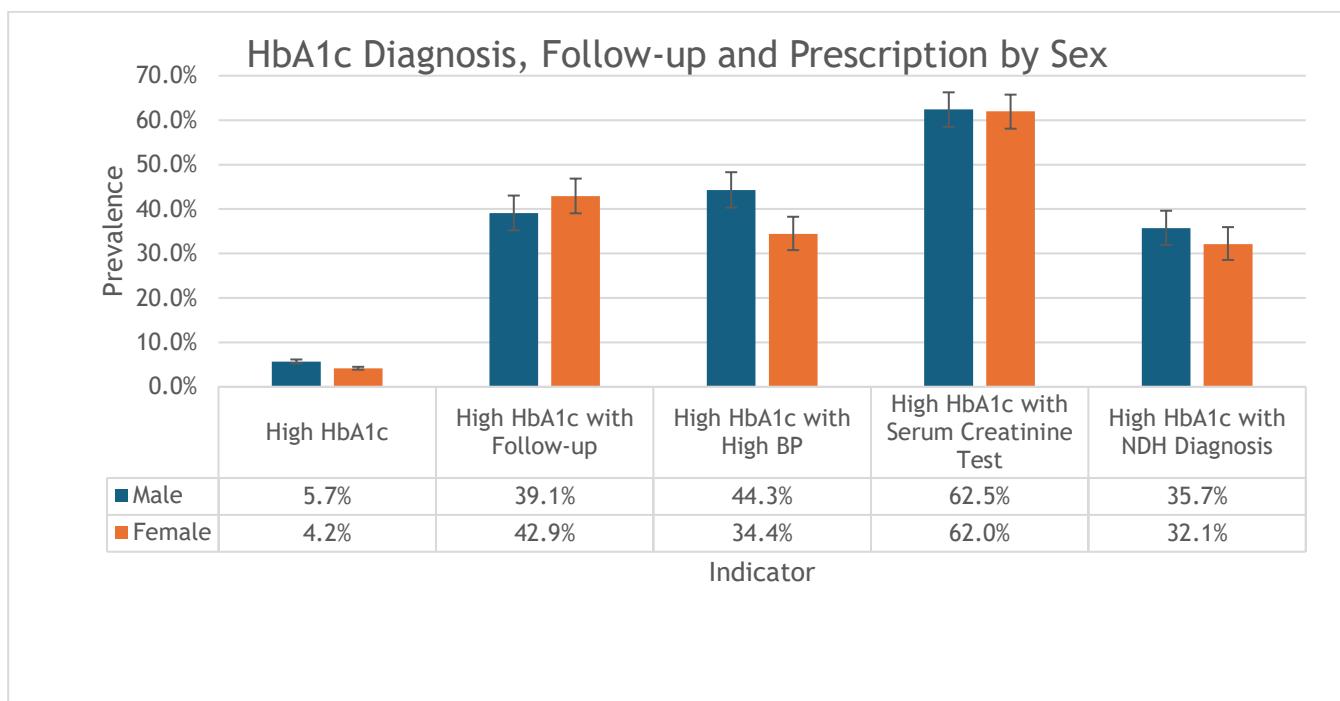


Figure 32: High HbA1c: Diagnosis, Follow-up, and Prescription by Sex

High HbA1c by Age

The prevalence of high HbA1c increases steadily with age, rising from 2.9% in those aged 40-44 to 6.4% in those aged 70-74. Despite this, follow-up testing rates remain low across all ages (around 37-47%). The proportion with both high HbA1c and hypertension also increases with age, peaking at 46% among 60-64-year-olds, highlighting overlapping cardiovascular risk.

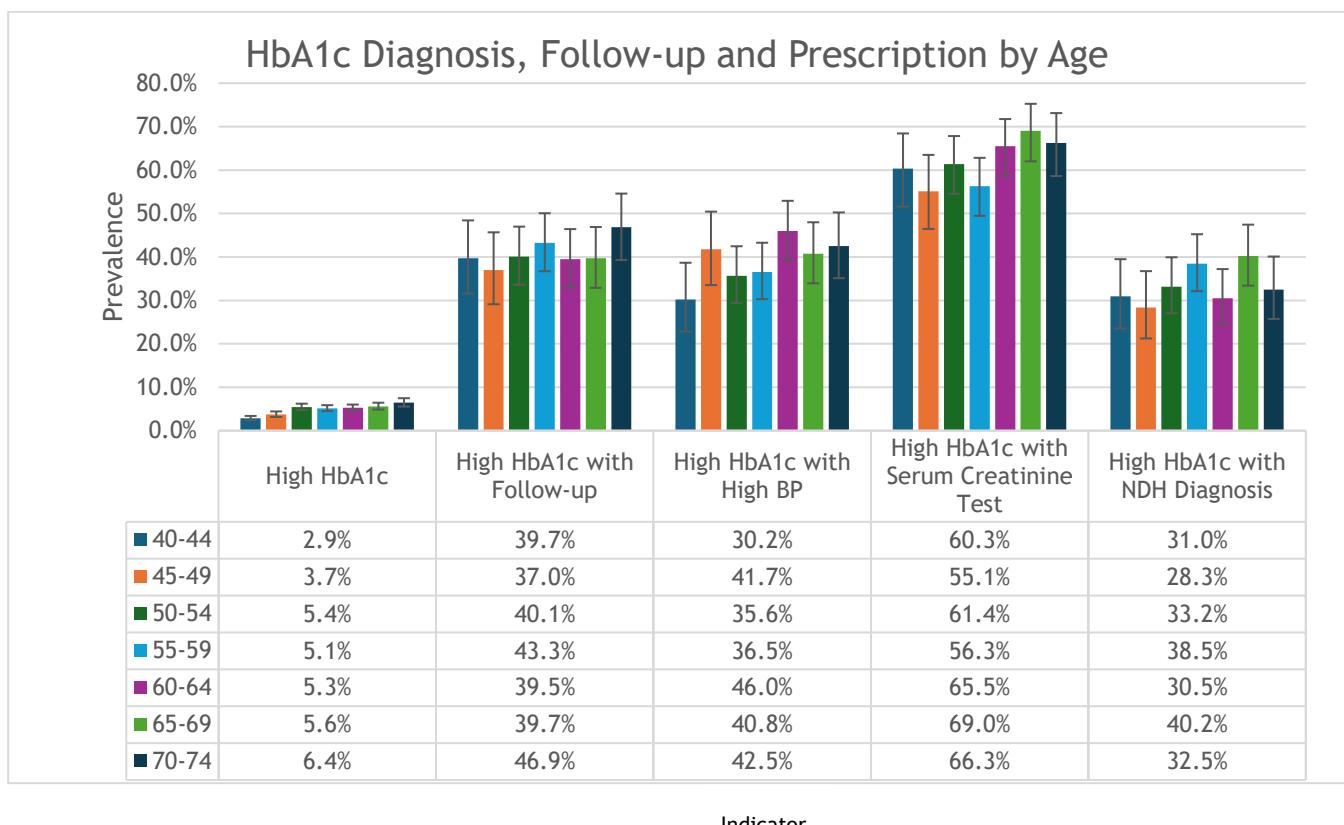


Figure 33: High HbA1c: Diagnosis, Follow-up, and Prescription by Age

High HbA1c by IMD

There is a social gradient in the prevalence of high HbA1c, with the most deprived decile (IMD 1) showing the highest rate (6.8%) and a steady decline to 3.6% in IMD 9, before a slight rise again in IMD 10 (4.5). Individuals having a follow up HbA1c reading (37-47%) are broadly consistent across deprivation levels, implying that socioeconomic status has limited influence on attendance at follow up appointments. The NDH (Non-Diabetic Hyperglycaemia) diagnosis rates (27-44%) vary inconsistently.

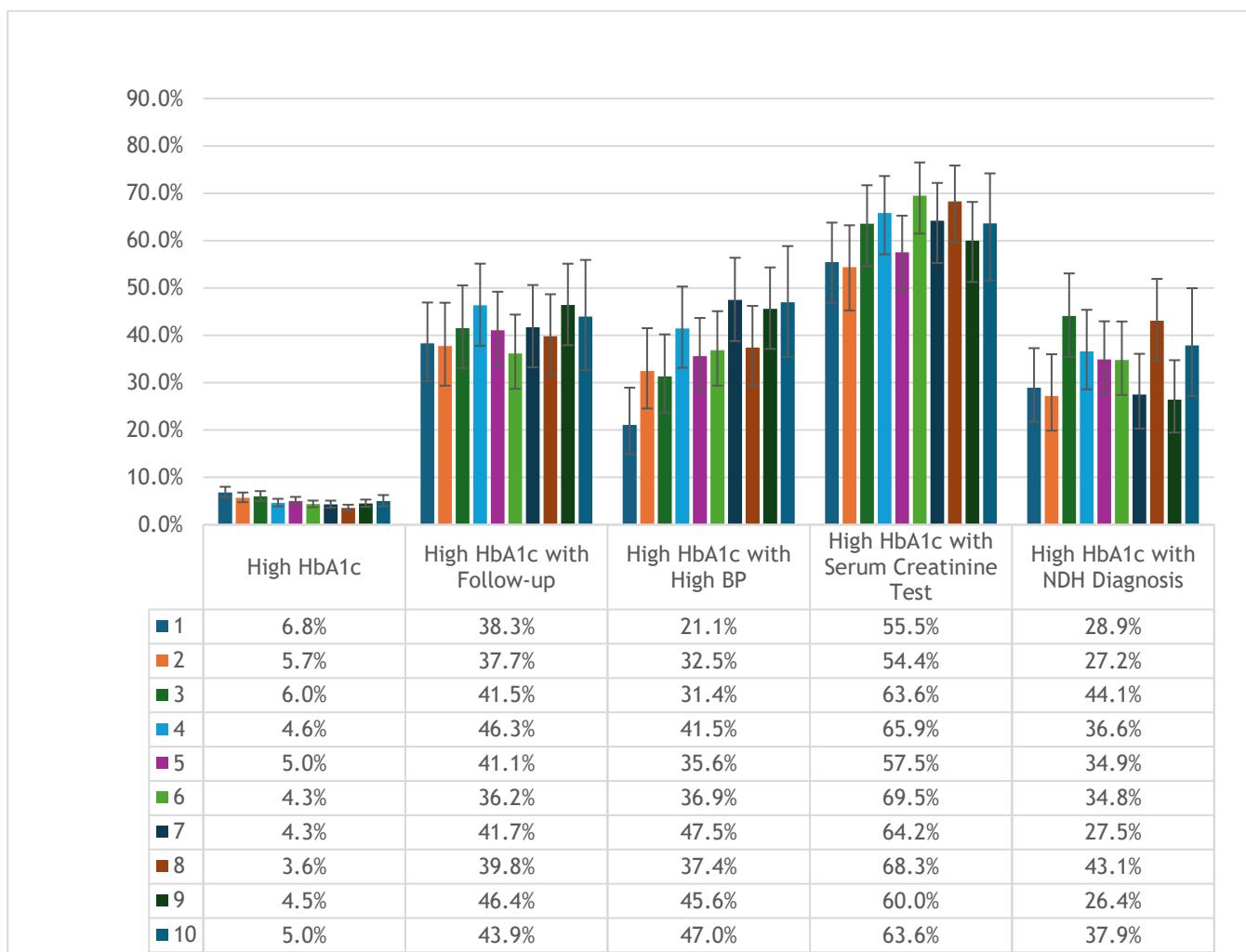


Figure 34: High HbA1c: Diagnosis, Follow-up, and Prescription by IMD

High HbA1c by Ethnicity

High HbA1c was observed in 16.4% of Black ethnic groups and 11.2% of Asian groups, compared to 6.9% among White groups and 4.7% for Unknown ethnicity, indicating higher prevalence in Black and Asian populations.

Co-occurrence of high HbA1c with high blood pressure was most frequent among Unknown ethnicity (46.7%) and Asian groups (33.3%), but much lower for White groups (13.3%), highlighting co-occurring cardiovascular risk in certain populations.

NDH diagnosis after high HbA1c was highest in Other ethnic groups (57.3%) and Black groups (48.9%), compared to 20.0% in White groups, suggesting greater prevalence of pre-diabetes among non-White populations. Confidence intervals are wide for smaller ethnic categories, but the overall pattern points to disparities in prevalence, follow-up, and diagnostic pathways.

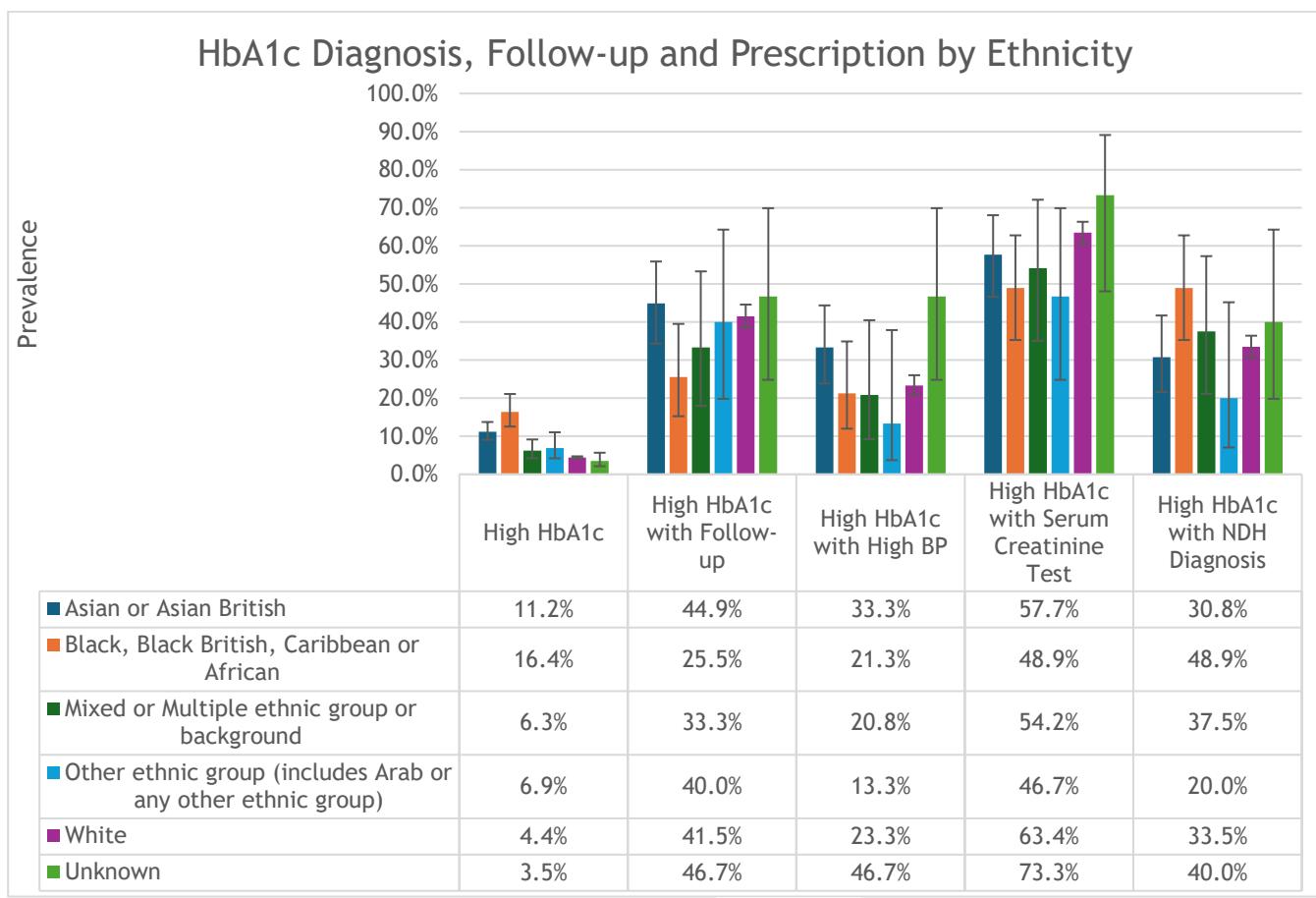


Figure 35: High HbA1c: Diagnosis, Follow-up, and Prescription by Ethnicity

6.4.9 Very High HbA1c

Very High HbA1c by Sex

Males show a higher prevalence of very high HbA1c (1.2%) compared with females (0.6%), suggesting reduced glycaemic control or later detection among men. Despite this, follow-up rates are high for both sexes (81.0% in men and 86.0% in women), indicating robust clinical management once identified. However, comorbidity patterns differ where men with very high HbA1c are more likely to have concurrent hypertension (57.9% vs. 40.9%), reflecting a greater cardiometabolic risk burden. Finally, diabetes diagnosis is more frequent among men (71.9%) than women (63.4%).

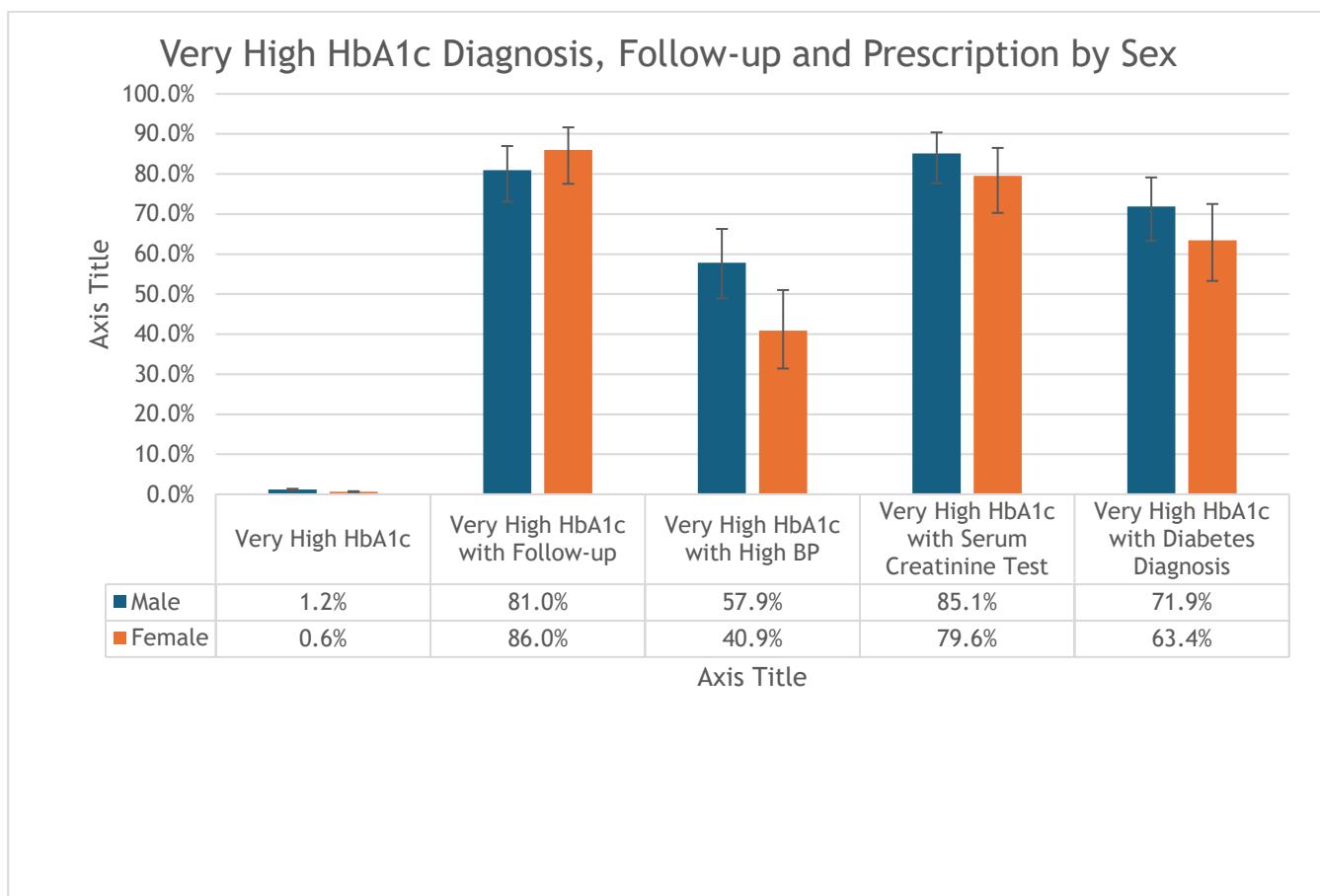


Figure 36: Very High HbA1c: Diagnosis, Follow-up, and Prescription by Sex

6.4.10 Very High HbA1c by Age

Follow-up rates are consistently strong (77-91%) across all age groups, with the highest engagement seen in those aged 55-59 (91.3%) correlating with the age group that shows high prevalence of very high HbA1c reading during their NHS Health Check. The co-occurrence of hypertension rises steadily with age, peaking between 60-69 years (55-63%), highlighting increasing multiple related cardiovascular and blood sugar conditions among older adults. In contrast, diabetes diagnosis rates are more variable, ranging from 55.2% in 45-49-year-olds to 74.1% in 65-69-year-olds.

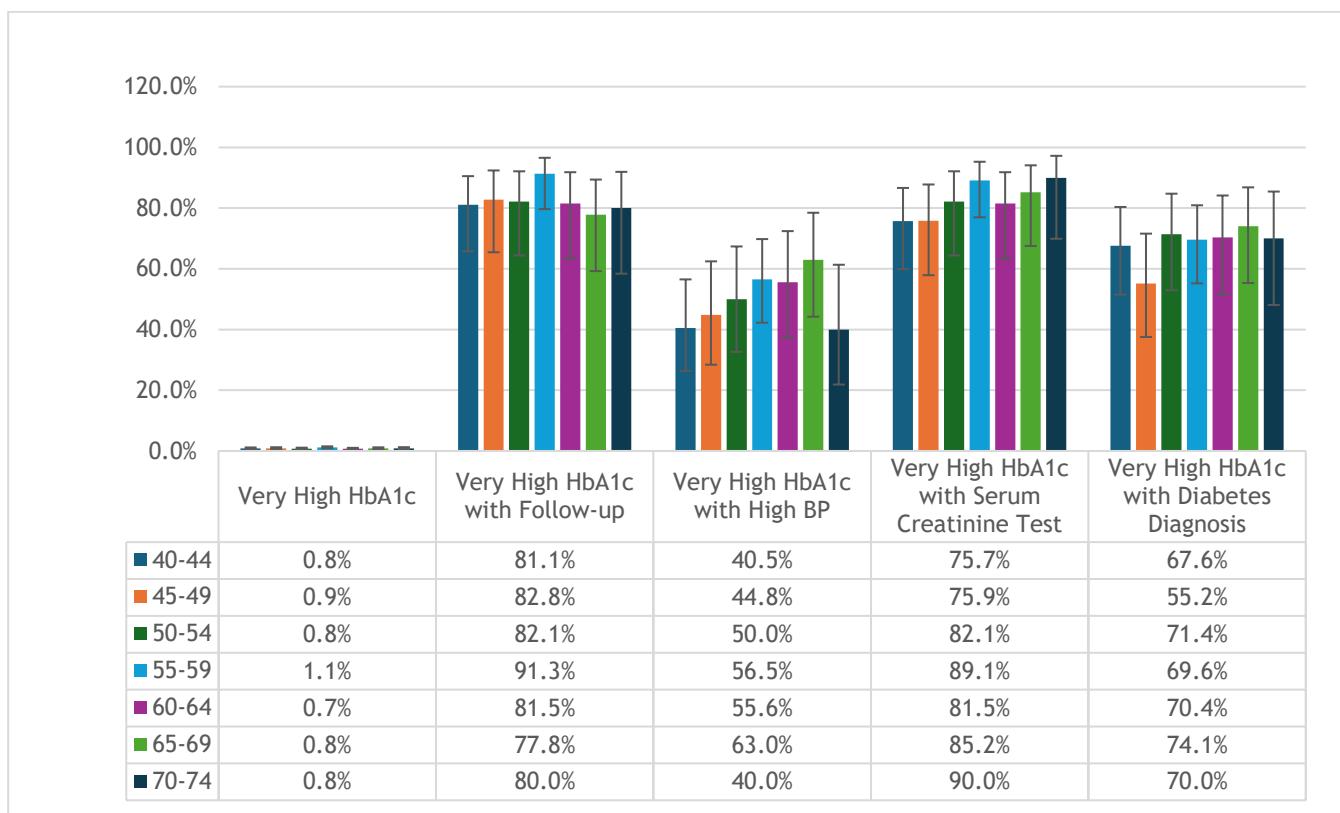


Figure 37: Very High HbA1c: Diagnosis, Follow-up, and Prescription by Age

6.4.11 Very High HbA1c by IMD

indicating that very high HbA1c is more common in areas of higher deprivation. Follow-up rates are high across all deciles (65-100%), with particularly strong engagement in deciles 2, 4, and 8 (88-100%), suggesting that once very high HbA1c is detected. The co-occurrence of hypertension varies, from 25% to 67%, peaking in deciles 4-6, highlighting that a substantial proportion of individuals with very high HbA1c also have elevated blood pressure, particularly in mid-range deprivation areas. Diabetes diagnosis among those with very high HbA1c also varies, from 44% in decile 5 to 80% in decile 1.

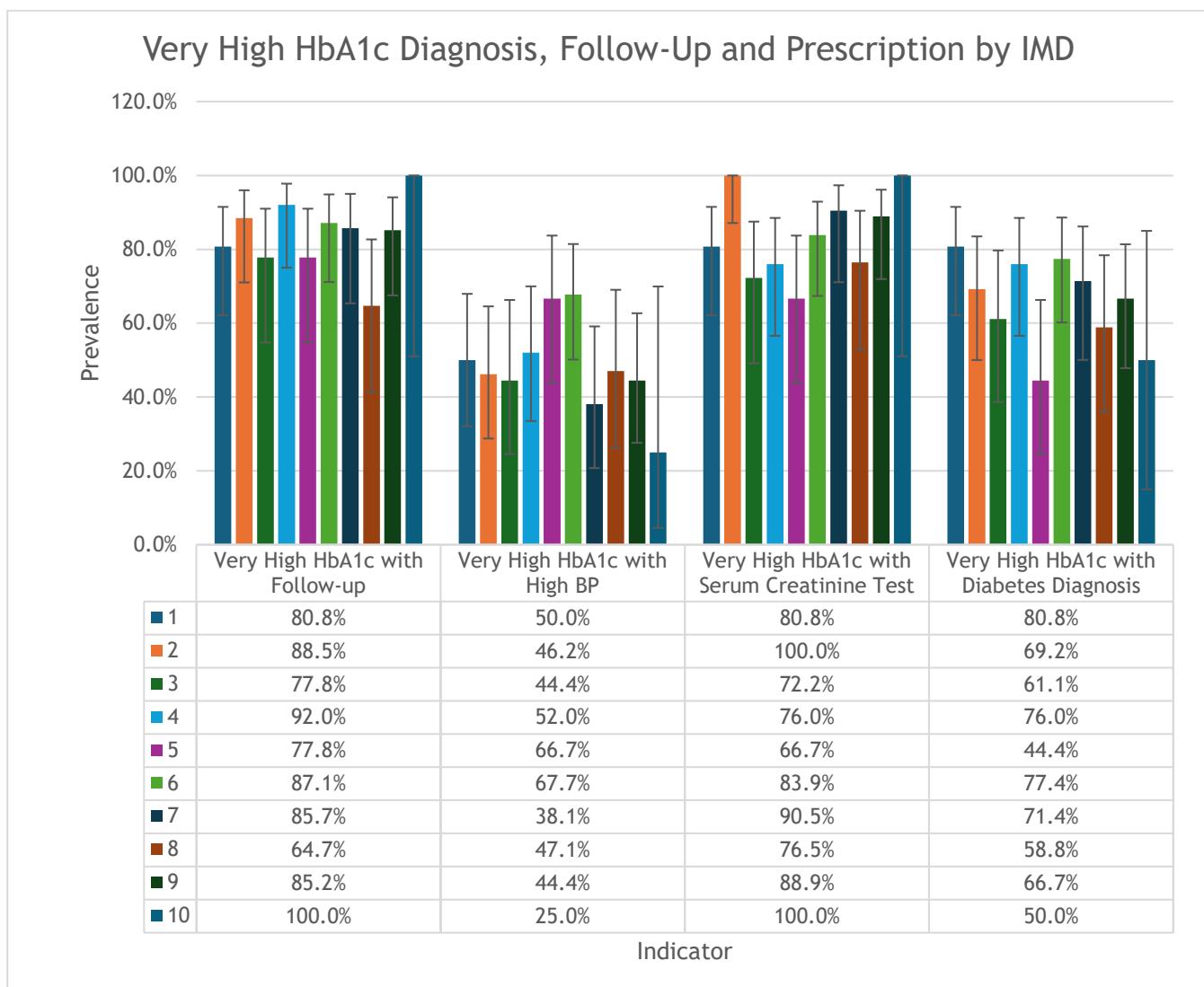


Figure 38: Very High HbA1c: Diagnosis, Follow-up, and Prescription by IMD

6.4.12 Very High HbA1c by Ethnicity

The prevalence of very high HbA1c is highest among Asian or Asian British groups (2.2%), around double that of White individuals (0.8%) and markedly higher than Black (0.7%) or Mixed ethnicity groups (1.0%). Follow-up rates are strong across most ethnicities, exceeding 70% for Asian, Mixed, and White groups, but the wide confidence intervals suggest small numbers may limit precision. The co-occurrence of high blood pressure among those with very high HbA1c varies widely, from 26.7% in Asian groups to 52.7% among White individuals, reflecting differing cardiovascular risk profiles or detection practices. Diabetes diagnosis rates mirror the overall pattern of elevated HbA1c, reaching 73.3% in Asian and 69.0% in White individuals, suggesting that higher prevalence among Asian groups is being appropriately recognised and managed through diagnostic capture.

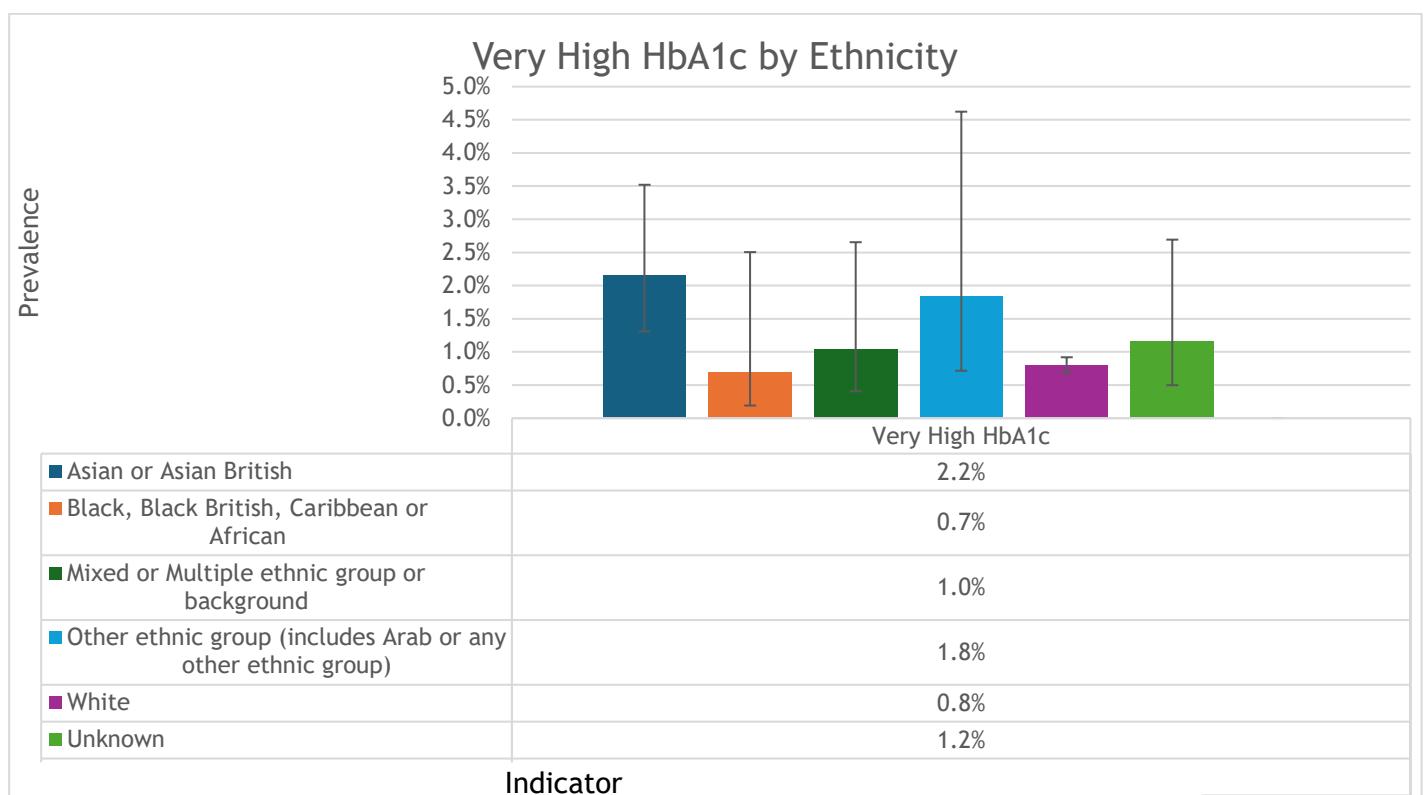


Figure 39: Very High HbA1c by Ethnicity

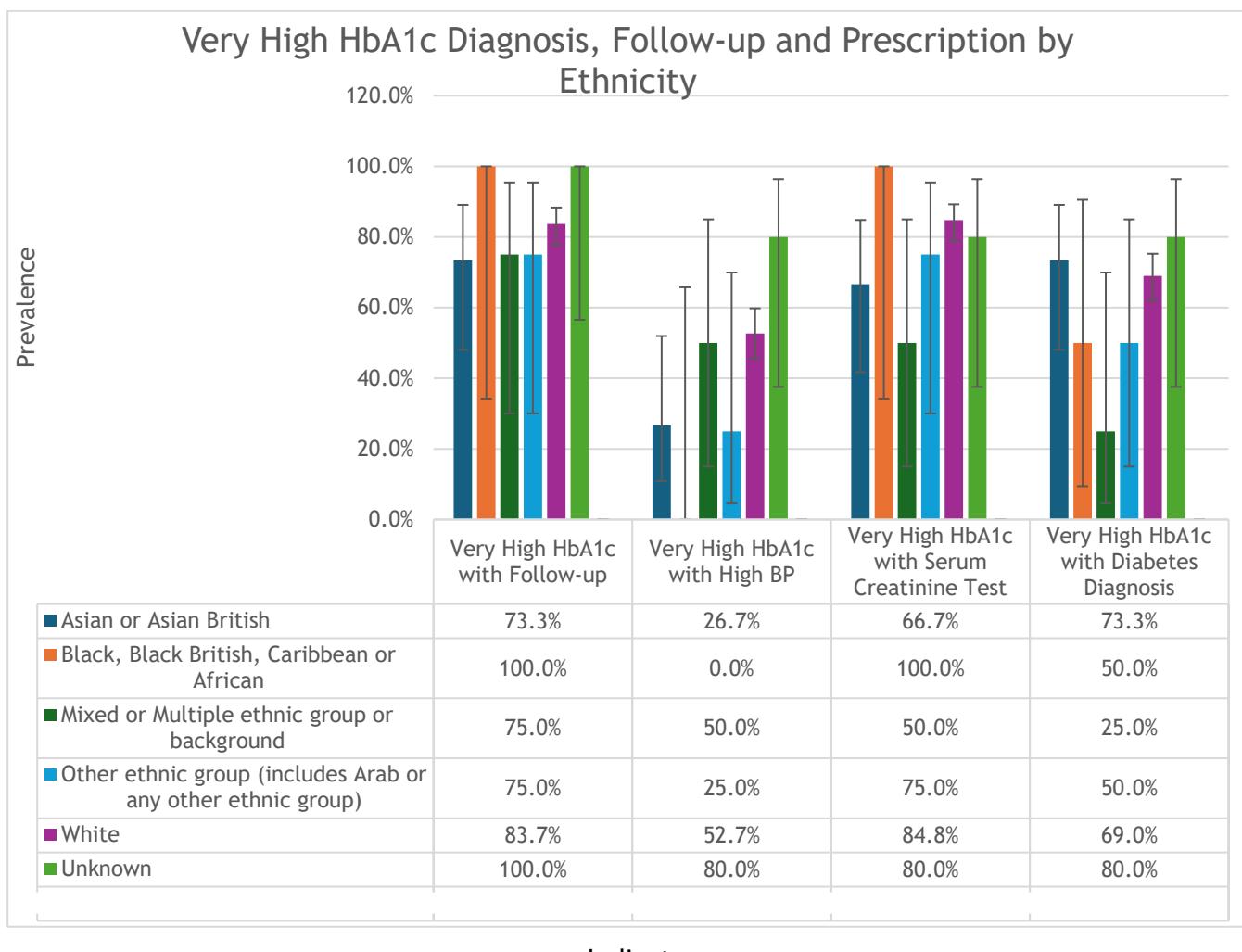


Figure 40: Very High HbA1c: Diagnosis, Follow-up, and Prescription by Ethnicity

6.4.13 Irregular pulse

Irregular Pulse by Sex

Irregular pulse was detected in 0.6% of males and 0.5% of females, showing a marginally higher prevalence among men. Among those with an irregular pulse, 6.9% of males and 1.4% of females were diagnosed with atrial fibrillation (AF), indicating that men with irregular pulse are substantially more likely to receive an AF diagnosis. Confidence intervals are wide, reflecting low numbers, but the pattern suggests a potential sex disparity in AF detection or

risk. Overall, the findings highlight that while irregular pulse is relatively uncommon, follow-up diagnosis with AF is markedly higher among males.

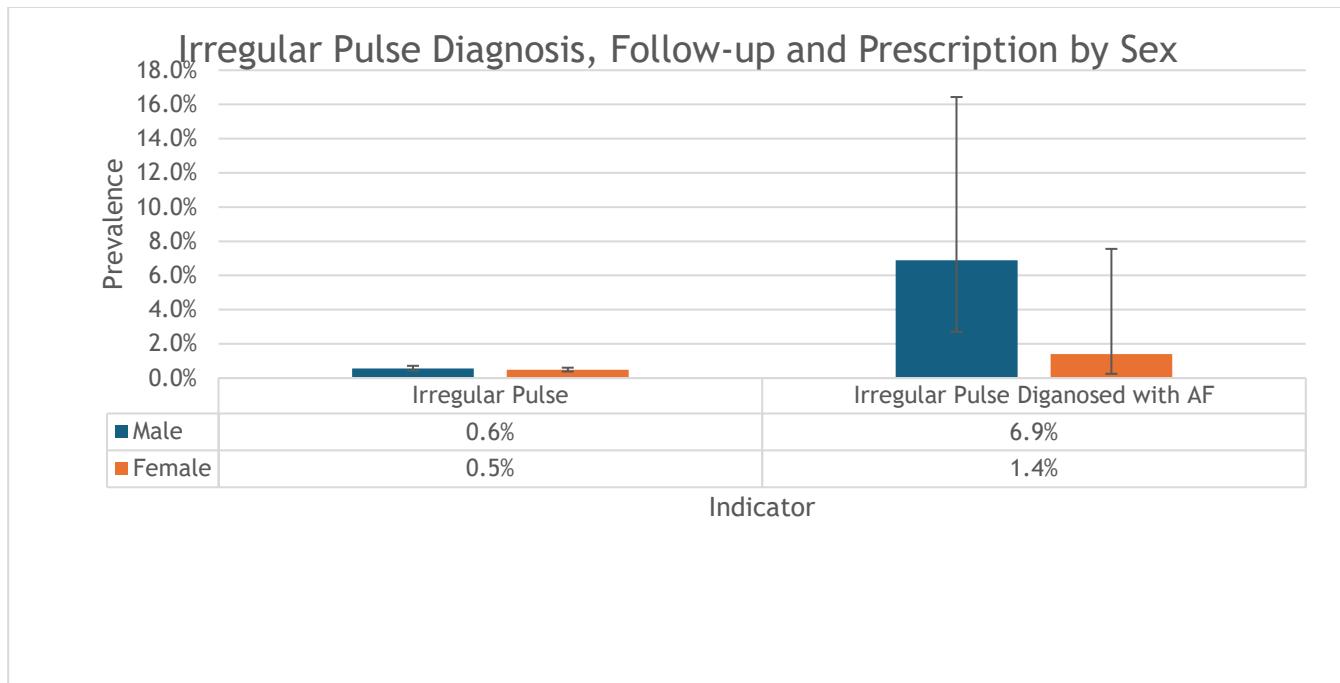


Figure 41: Irregular Pulse: Diagnosis, Follow-up, and Prescription by Sex

6.5 Summary

The Health Equity Audit reveals clear disparities in cardiovascular risk factors across sex, ethnicity, age, and deprivation. Males consistently show higher prevalence of high HbA1c (5.7% vs. 4.2%), high blood pressure (30.5% vs. 20.0%), and smoking (15.2% vs. 11.1%), while females are more likely to be physically inactive. These patterns suggest that men face greater cardiovascular risk overall, but women may require targeted support for physical activity and weight management.

Ethnic differences are pronounced. High HbA1c prevalence is greatest among Black (16.4%), and Asian (11.2%) groups compared to White (6.9%). Follow-up after abnormal HbA1c results is lowest in Black groups (25.5%) and highest in Other ethnic groups (53.3%). NDH diagnosis is more frequent in Other (57.3%) and Black groups (48.9%), suggesting better detection but possible inequities in follow-up and management. Serum creatinine testing is highest in Unknown and Other ethnicities.

Age and deprivation gradients further compound risk. High HbA1c and hypertension prevalence rise steadily with age, peaking in older adults, while obesity and combined overweight/obesity are most common in mid-life. Smoking and obesity show strong social gradients, with the most deprived groups experiencing the highest prevalence. Despite these risks, follow-up rates after abnormal results remain moderate (around 40% for HbA1c

and 50-55% for high BP), and prescribing of antihypertensives is consistently low (<10%), highlighting missed opportunities for intervention.

Overall, the findings underscore the need for proportionate universalism, combining population-wide strategies with targeted interventions for high-risk groups. Improving follow-up care, addressing treatment gaps, and tailoring approaches by ethnicity, age, and deprivation are critical to reducing health inequalities and preventing progression to diabetes and cardiovascular disease.

7. How economically effective is the NHS Health Check programme?

To complement the qualitative and quantitative findings of this evaluation, the NHS Health Check Ready Reckoner⁽⁵³⁾ tool has been used to estimate the potential service implications, cost savings, and health benefits associated with the delivery of the NHS Health Check programme in East Sussex. Developed by the Office for Health Improvement and Disparities (OHID), the Ready Reckoner provides a nationally standardised model that applies evidence-based assumptions to local population data.

While this tool provides a helpful estimate of potential cost savings and service implications based on national evidence, it is important to note that the current version is out of date (created in 2014) and may not fully reflect the latest costs, clinical pathways, or local demographic changes. Furthermore, the East Sussex data input into the Ready Reckoner tool is based on local figures from the 2022/23 fiscal year, because, at the time of data gathering for the evaluation, this period represented the most recent year of complete and validated local data available, it was selected to ensure consistency and reliability of the economic modelling.

The tool estimates downstream healthcare savings and service impacts by modelling expected outcomes such as reductions in cardiovascular events, diagnoses of high-risk conditions, and resulting changes in service utilisation. In this evaluation, the Ready Reckoner has been applied using East Sussex specific population figures, and where applicable, local assumptions have been used to enhance the relevance and accuracy of the findings.

This section outlines the projected benefits, including potential cost savings to the NHS and social care system, alongside implications for primary care, prescribing, and lifestyle services. It supports a broader understanding of the return on investment of NHS Health Checks and highlights the value of ongoing local delivery.

7.1 Ready Reckoner Costings

To ensure the costing analysis accurately reflected the delivery of NHS Health Checks within East Sussex, locally derived cost data were incorporated into the costing tool for both staffing and laboratory components. This included local hourly rates, locally agreed timings, and evidence-based assumptions drawn from national sources such as PHL SA 2025-26 NHS Health Check payments, PSSRU 2024-unit costs, and local laboratory pricing. Local time estimates for each activity were aligned with national timings, ensuring methodological consistency while reflecting realistic delivery practice across GP settings.

Staff costs were calculated using local hourly rates and the estimated time taken for each activity. This approach captured a more accurate picture of resource use within East Sussex GP practices. For example, initial NHS Health Check tests were costed using a local rate of £44.00 per hour over 15 minutes, generating an estimated cost of £11.00. Diagnostic follow-up appointments for hypertension and diabetes were costed at £53.00 per hour, with durations of 15 and 20 minutes respectively, resulting in cost estimates of £13.25 and £17.67. Feedback appointments were costed at £11.00 based on a 15-minute duration at £44.00 per hour. These figures reflect the true staffing costs incurred by practices and provide a clearer understanding of where time and resources are concentrated within the NHS Health Check pathway.

Laboratory costs were also updated using local data and clearly defined assumptions. A local cost of £4.95 was applied for cholesterol testing, based on the use of point-of-care lipid testing excluding PPE. The fasting blood glucose test was also costed at £4.95, consistent with local practice where POCT HbA1c may be used as an alternative. The serum creatinine test cost was set at £0.25, derived from local kidney disease reference costs. The oral glucose tolerance test cost was updated to £16.12 using the NHS Cost Inflation Index. These laboratory costs ensure that the evaluation reflects contemporary clinical practice and locally relevant pricing structures.

Incorporating local data into the costing tool strengthens the accuracy and relevance of the evaluation. Local staffing rates and laboratory costs often differ from national benchmarks, and failing to account for these variations would risk under- or over-estimating the true cost of delivering NHS Health Checks in East Sussex. By using local data, the analysis provides a more reliable basis for comparing GP-delivered checks with third-party providers, assessing value for money, and informing future commissioning decisions. This approach ensures that the evaluation captures the real resource implications of NHS Health Check delivery and supports a more nuanced understanding of efficiency, cost drivers, and opportunities for service improvement.

7.2 Ready Reckoner Outcomes

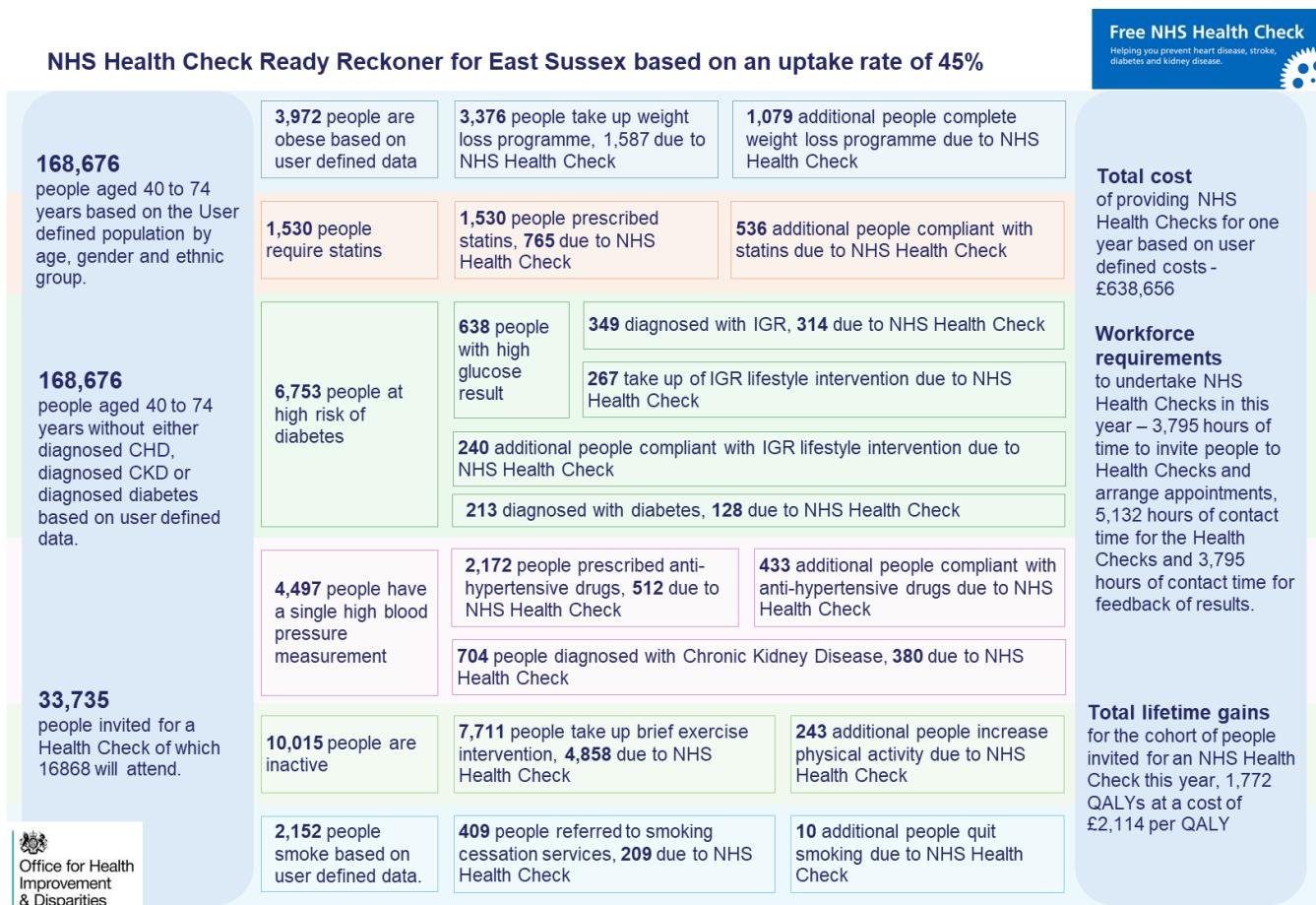


Figure 42: East Sussex Ready Reckoner Results

The table below outlines more clearly the estimated outcomes from the year 2022/2023 of the NHS Health Check programme identified by the Ready Reckoner tool. It details the projected number of additional individuals who will have accessed the service, received a diagnosis, and been prescribed medication annually throughout this initial period.

Outcome	Estimated Additional People per Year
Complete weight loss programme	1079
Taking statins	536
Compliant with Impaired Glucose Regulation lifestyle	240
Diagnosed with diabetes	128

Outcome	Estimated Additional People per Year
Taking anti-hypertensive drugs	433
Diagnosed with chronic kidney disease	380
Increase physical activity	243
Quit smoking ¹	10

Table 13: Ready Reckoner Estimations

7.2.1 Cost per QALY (Quality-Adjusted Life Years)

A Quality-Adjusted Life Year (QALY) is a way of measuring the benefit of a health intervention by combining both the quantity of life (how long a person lives) and the quality of life (how healthy those years are)⁽⁴⁰⁾. One QALY represents one year of life in perfect health. Using this approach, the Ready Reckoner tool estimates the total QALYs generated by the NHS Health Check programme. The tool combines data on the number of individuals receiving a check, their risk factors, and expected health outcomes with published evidence on the effectiveness of interventions such as blood pressure control, cholesterol management, and lifestyle changes. Each health benefit is translated into a gain in QALYs by applying the appropriate utility weights for different health states. The programme is projected to generate approximately 1,772 QALYs over the lifetime of recipients of an NHS Health Check.

The cost per QALY gained is estimated at £2,114, which is far below the threshold used by the National Institute for Health and Care Excellence (NICE) to judge cost-effectiveness. NICE generally considers interventions costing £20,000-£30,000 per QALY to be good value for NHS resources. ⁽⁴¹⁾ Interventions costing less than this range are considered highly cost-effective, while those above £30,000 per QALY are considered less cost-effective.

NHS Health Checks produce an additional year of healthy life at less cost than what NICE considers acceptable, making the programme cost-effective. For example, if an NHS Health Check helps prevent a heart attack, this may result in several additional years of life in reasonably good health for that individual. Spending £2,114 to achieve one QALY is therefore substantially more efficient than the NICE benchmark of £20,000 - £30,000.

¹ The low number of people quitting smoking is due to the low compliance rate with smoking cessation interventions (5%).

We can therefore conclude that NHS Health Checks provide substantial improvements in both the length and quality of life at a relatively low cost, demonstrating value for money and supporting continued investment in the programme.

7.3 Return on Investment

In addition, the Ready Reckoner illustrates the initial investment associated with NHS Health Checks, including screening, follow up, and treatment, alongside the subsequent savings estimated from year 15 onwards. These figures are derived from economic modelling based on national assumptions and local input data. In the early years (Years 1 to 10), costs exceed savings as benefits such as disease prevention and improved management of cardiovascular risk factors take time to materialise.

The East Sussex NHS Health Check is currently in its 16th year. From using the Ready Reckoner tool, East Sussex can estimate a current net saving of just over £91,179.

By Year 20, the model estimates a net saving of £237,724, demonstrating that the NHS Health Check programme offers both long-term financial benefits and improved health outcomes.

The table below presents the projected financial trajectory over a 20-year period:

Time After NHS Health Check	Costs Incurred	Savings	Net Savings
1st year	£742,751	£124,102	-£618,650
5th year	£1,537,924	£830,307	-£707,618
10th year	£1,841,530	£1,714,301	-£127,229
15th year	£2,228,066	£2,319,245	£91,179
20th year	£2,524,173	£2,761,897	£237,724

Table 14: Projected Financial Trajectory

7.4 Benefit-Cost Ratio

In addition to assessing cost per QALY and long-term net savings, the Benefit-Cost Ratio (BCR) provides a clear and accessible measure of the financial return on investment from the NHS Health Check programme.

The BCR compares the total financial benefits (savings) to the total programme costs over a defined period.

The Benefit-Cost Ratio (BCR) is a standard economic evaluation metric that compares the monetary value of benefits to the monetary value of costs. It is calculated using the formula:

$$BCR = \frac{\text{Total Benefits}}{\text{Total Costs}}$$

Equation 2: Benefit-Cost Ratio Formula

Using the 20-year projections from the national NHS Health Check tool:

- Total estimated savings (20 years): £2,761,897
- Total programme costs (20 years): £2,524,173

Therefore, the East Sussex NHS Health Check Program BCR is:

$$BCR = \frac{\text{£2,761,897}}{\text{£2,524,173}} \approx 1.09$$

Equation 3: East Sussex NHS Health Check Program BCR

For every £1 invested in the NHS Health Check programme in East Sussex, approximately £1.09 is returned in direct healthcare savings by Year 20.

While this calculation focuses solely on the direct savings to the healthcare system such as reduced hospital admissions, medication costs, and GP appointments, it does not include wider economic or societal benefits.

These may include increased productivity, reduced informal care needs, or broader wellbeing impacts, suggesting that the true value of the programme is likely understated by this conservative estimate.

The BCR, alongside the cost per QALY and net savings figures, reinforces the case for sustained investment in NHS Health Checks as a cost-effective, evidence-based public health intervention.

7.4.1 Future BCR Potential

The Benefit Cost Ratio presented above is based on programme performance in 2022 to 2023, when uptake of NHS Health Checks in East Sussex was approximately 45 percent. By

2024 to 2025, uptake had increased to around 50 percent, reflecting improvements in system coordination, delivery capacity, and public engagement.

Economic modelling using the Ready Reckoner indicates that, if a sustained uptake of 50 percent is assumed, the estimated net savings by year 20 will increase to £264,137. This reflects the effect of reaching a larger proportion of the eligible population, rather than an additional cumulative benefit beyond that already modelled within the tool.

More importantly, the evaluation indicates that improvements in uptake have been accompanied by more effective targeting of higher risk populations. Targeting individuals with greater baseline cardiovascular risk increases the likelihood of earlier diagnosis, appropriate referral, and downstream cost avoidance. As a result, it is reasonable to expect improvements in cost effectiveness over time, particularly where increased uptake is achieved alongside continued focus on populations at greatest risk.

8. What are the professional perceptions of the programme?

8.1 Introduction

A survey was conducted with providers of the NHS Health Checks programme, aiming to:

- Understand the different delivery models between providers,
- Gather information on the training provided and where there are opportunities for development,
- Understand practitioner confidence around having behaviour change conversations and,
- For practitioners to provide their thoughts on the NHS Health Check Programme in general.

The survey was open for an 8-week period and sent out to GP surgeries, pharmacies and OYES practitioners. The following data reflects 19 responses; and of those responses, only two OYES practitioners and no pharmacies responded. Hence, despite this study being highly valuable in gaining perspective of the NHS Health Check deliveries, the low response rate should be considered when interpreting the findings.

The survey responses received are crucial to provide expert insight into the programme, but the learning for us is that measures need to be considered and planned to maximise uptake if there is further engagement in the future.

8.2 The Survey

12 primary care healthcare assistants completed the survey, 4 primary care nurses, 2 OYES practitioners and 1 general practice assistant and most had been practitioners for 5+ years, but some for 2-5 years, and some less than 1 year.

Question 1: What job role do you provide NHS Health Checks in?

One person did not answer this question. Of the 18 responses, there were two OYES Practitioners, 12 primary care healthcare assistants and 4 primary care nurses.

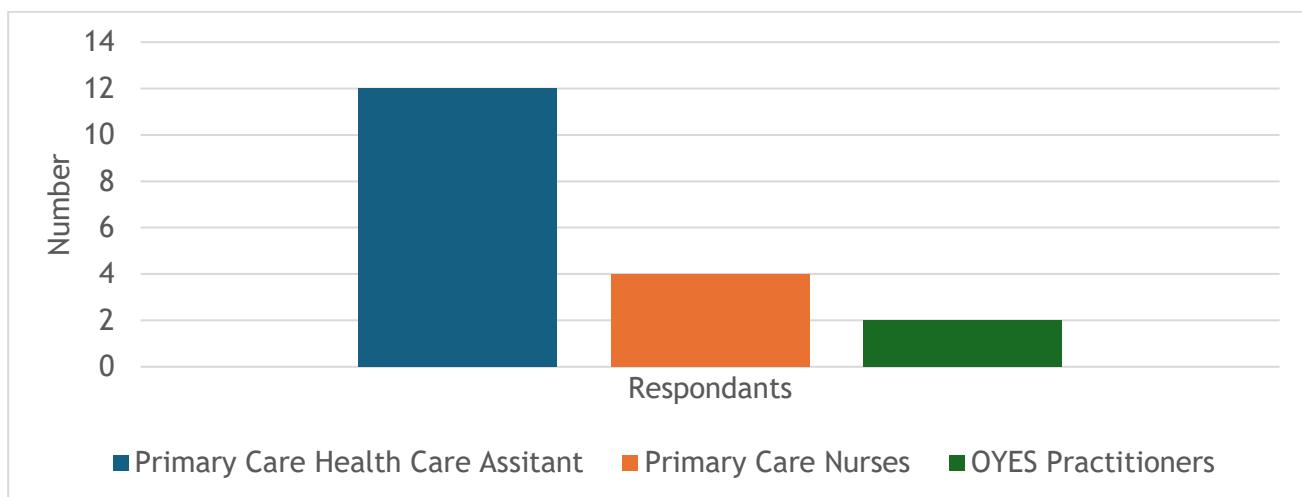


Figure 43: Distribution of job roles among respondents to Question 1.

Question 2: How long have you been delivering NHS Health Checks as a practitioner in East Sussex?

There were 19 responses to this question.

A: how long have you been a practitioner?

Most responses were for more than 5 years (47%), then 2-5 years (21%), and less than 1 year (21%) and 1-2 years (10%).

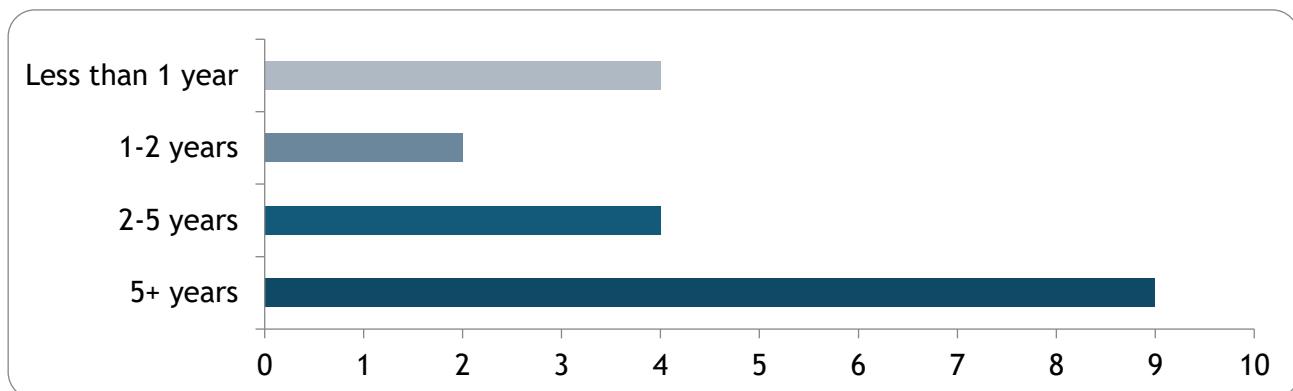


Figure 44: how long have you been a practitioner?

B: How often do you deliver NHS Health Checks in your role?

Most people said they deliver health checks more than once a week (68%), one person said that they deliver the health checks less than monthly (5%). The rest of responses were equally split (10% each) between one a week, a few times a month, and other. The 'other' response was because that individual had 'not yet started'.

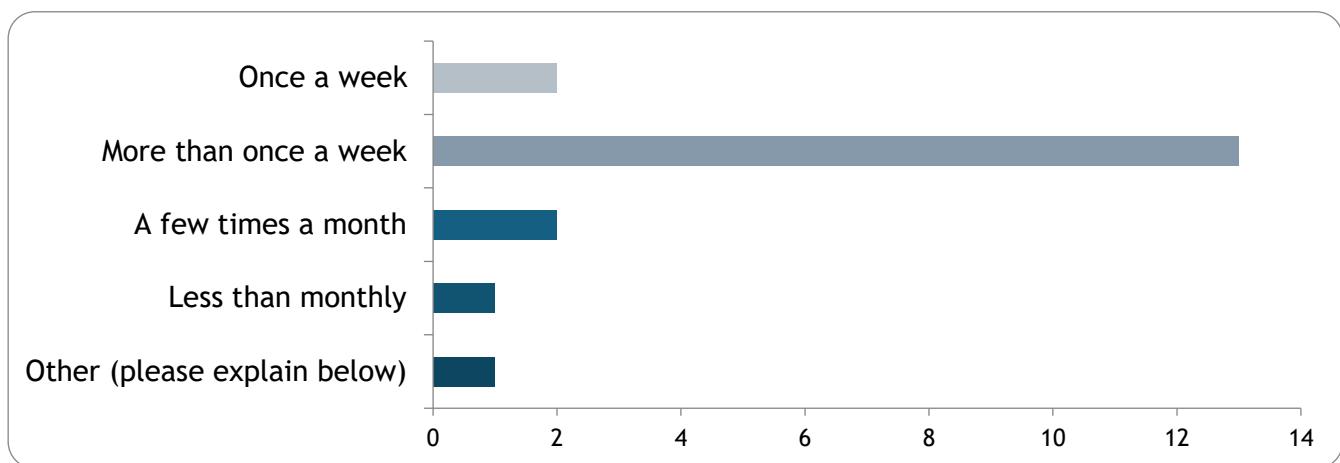


Figure 45: How often do you deliver NHS Health Checks in your role?

Question 3: How many people at your current place of work currently deliver NHS Health Checks?

19 people responded to this question.

A: How many people deliver NHS Health Checks at place of work

In most practices, 1-5 people delivered the NHS health checks (89%). The rest answered that 6-10 people deliver the health checks (11%)

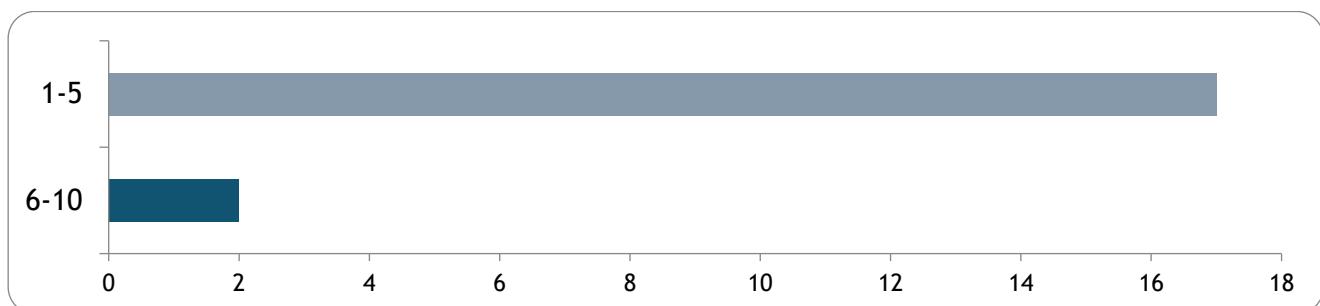


Figure 46: How many people deliver NHS Health Checks at place of work

B: How often does your place of work run NHS Health Check clinics?

The two OYES practitioners did not respond as this did not apply. Most practices said they run health check clinics every day (47%), and 42% said they run health check clinics a few times a week. One practice said that they run clinics less than monthly, and one said 'other' and explained that that was because clinics were allocated to do the health clinics "when requests were sent to patients to book"- which implies that this varies.

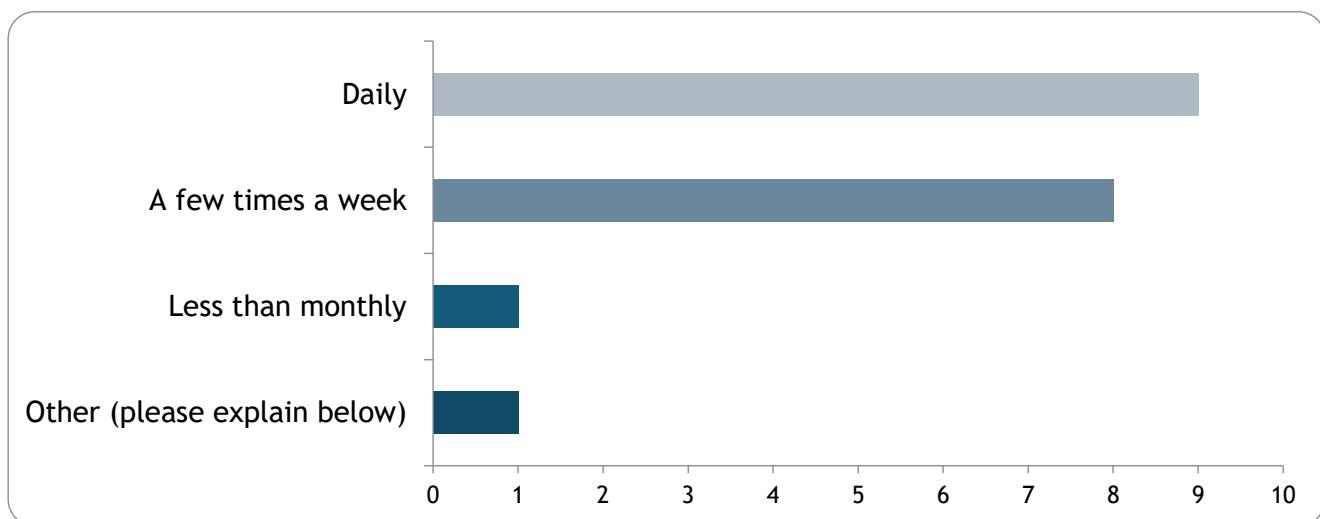


Figure 47: How often does your place of work run NHS health check clinics?

Question 4: Please tell us what you think the key purpose is for providing NHS Health Checks.

18 people responded to this question.

Three main themes were identified from thematic analysis. Those predominant themes were targeting specific conditions, raising awareness and enabling personal control. Other purposes mentioned by multiple respondents were prevention and delivering a good service.

Most respondents mentioned the purpose of the NHS Health Checks in targeting specific diseases: including cardiovascular disease, blood pressure, diabetes and cholesterol. The most common disease mentioned by respondents was cardiovascular disease.

In relation to health checks as increasing awareness, several respondents mentioned the purpose of health checks as being an opportunity to promote, inform, give direction, or increase understanding of lifestyle change. Other respondents cited the key purpose as education or awareness raising of general health, of undiagnosed underlying disease, or via general signposting to resources.

A third key purpose raised by multiple respondents was enabling personal control or empowerment, particularly in relation to supporting (lifestyle) change and improving health, but also potentially in relation to mental health or self-reflection.

Other key purposes mentioned by respondents included prevention, either generally or specifically in relation to health care need, and delivering a good service to patients

Question 5: How does the GP surgery you work at invite patients for their NHS Health check?

A: How are all eligible patients invited?

There were 16 responses to this question, as the 2 OYES practitioners did not respond as this was not applicable. Out of the 16 responses, most said that they invited patients by sending text messages (81%). The remainder used opportunistic invites (12%) and phone call (6%).

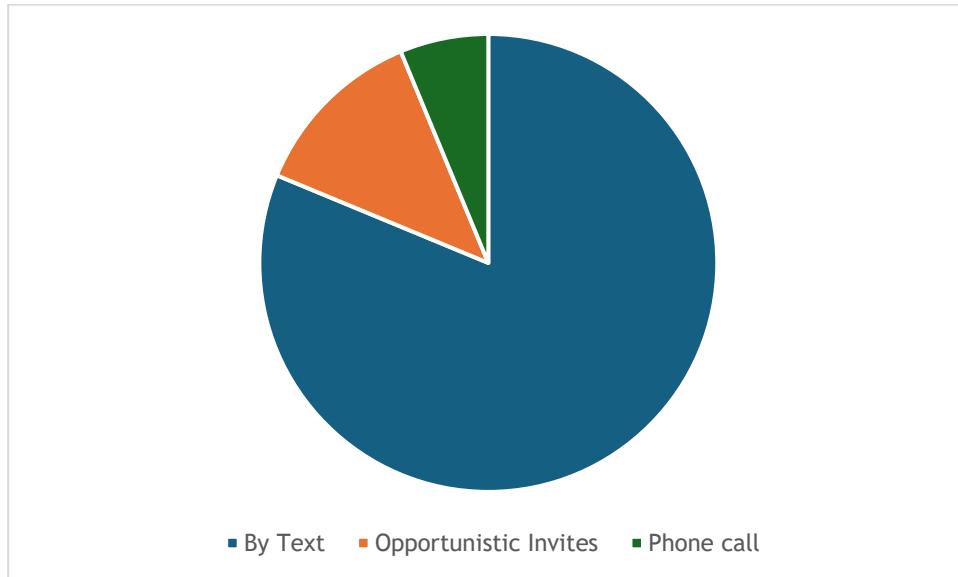


Figure 48: How does the GP surgery you work at invite patients for their NHS Health check?

B: How patients from target demographic are invited?

There were 14 responses to this part of the question, and most people did not know

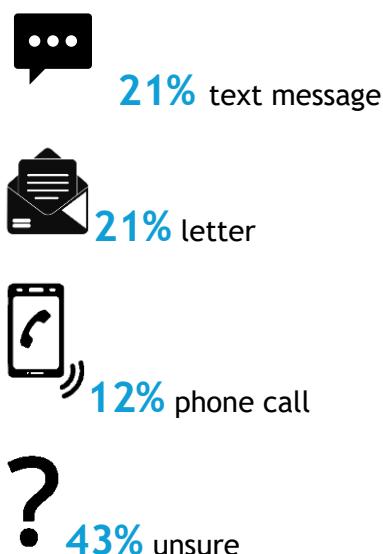


Figure 49: How patients from target demographic are invited?

Question 6: What NHS health check training have you had in the last 5 years.

All people responded to this question.

Most people said they had face-to-face NHS health check training (58%). 26% said they had point of care testing training, 26% said they had health checks refresher training and 26% said 'other'. Of those 'others', one said they had no health check training at all, and another said they had no refresher training. The remaining 'others' mentioned the date of the health check course, peer training and e-learning for health.

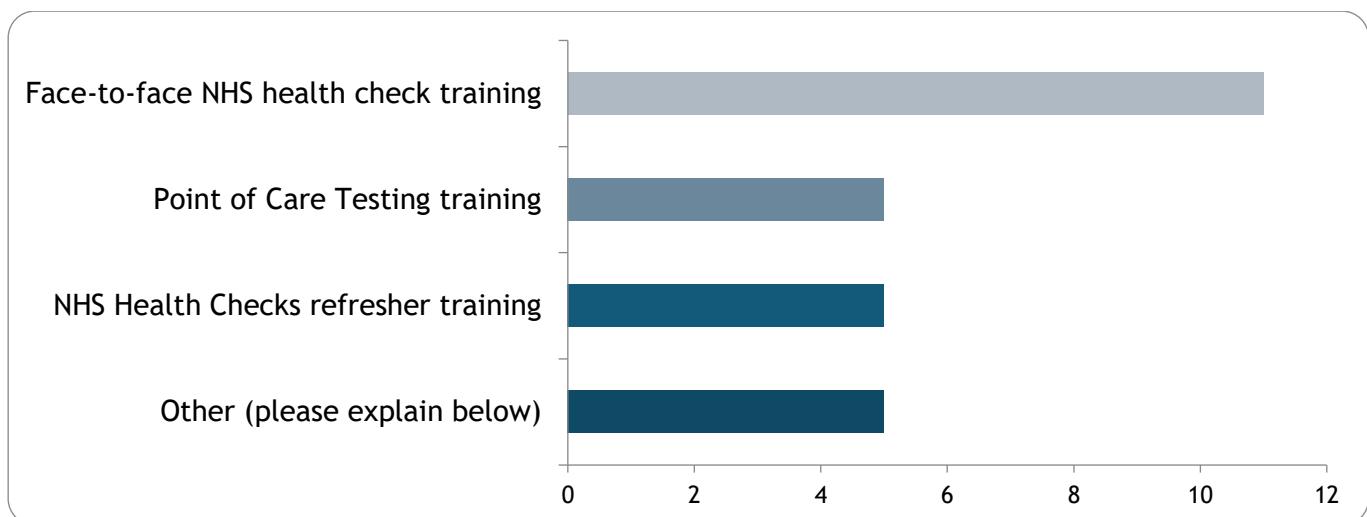


Figure 50: What NHS health check training have you had in the last 5 years?

A: when did you last do refresher training?

7 people didn't answer this question

Of the 12 people who did, most people did their refresher training over 2 years ago (4%). 33% of people had training between 6 months and 1 year ago. 8% had refresher training less than 6 months ago, and 17% had it between 1 and 2 years ago. This suggests that some people might need more refresher training.

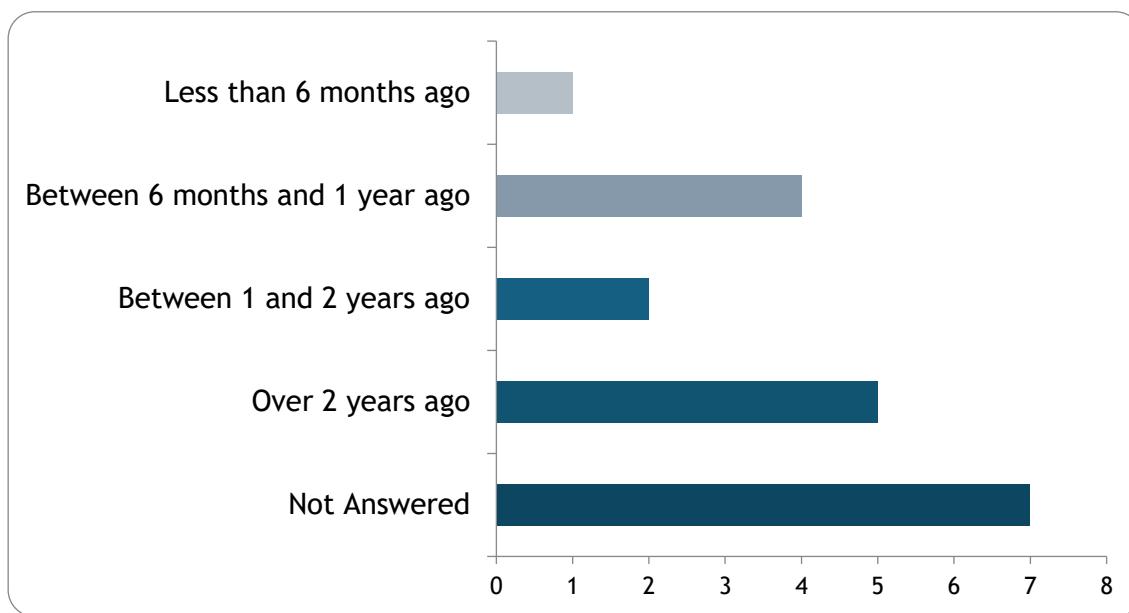


Figure 51: When did you last do refresher training?

B: Have you accessed training via the NHS Health Checks Training hub?

17 people responded to this question and out of those people who answered, 59% said yes, and 41% said no.

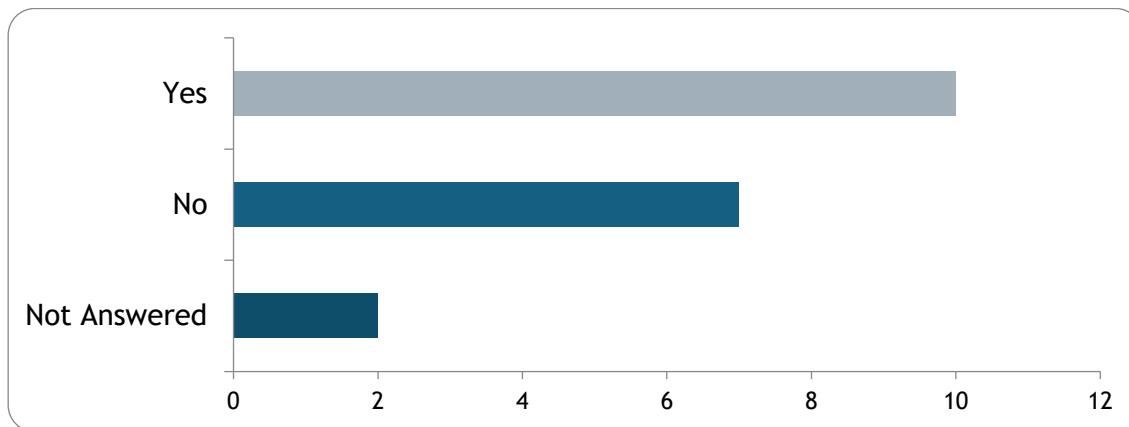


Figure 52: Have you accessed training via the NHS Health Checks Training hub?

Question 7: How much do you agree or disagree that the NHS health checks training developed your knowledge and skills in the following areas?

A: Understanding the purpose of an NHS check

18 people responded, and out of those responders, 50% of people strongly agreed, and 33% agreed. 11% responded that they strongly disagreed. One person neither agreed nor disagreed.

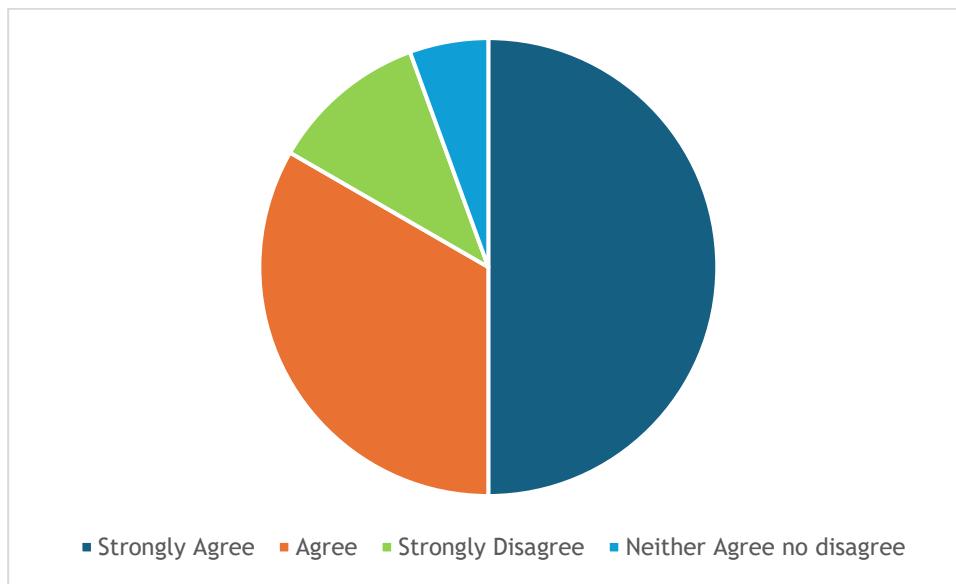


Figure 53: Understanding the purpose of an NHS check

B: Understanding and explaining the cardiovascular risk score.

Out of 18 responses, 44% said they strongly agreed, and 44% of people agreed. Again, two responders strongly disagreed.

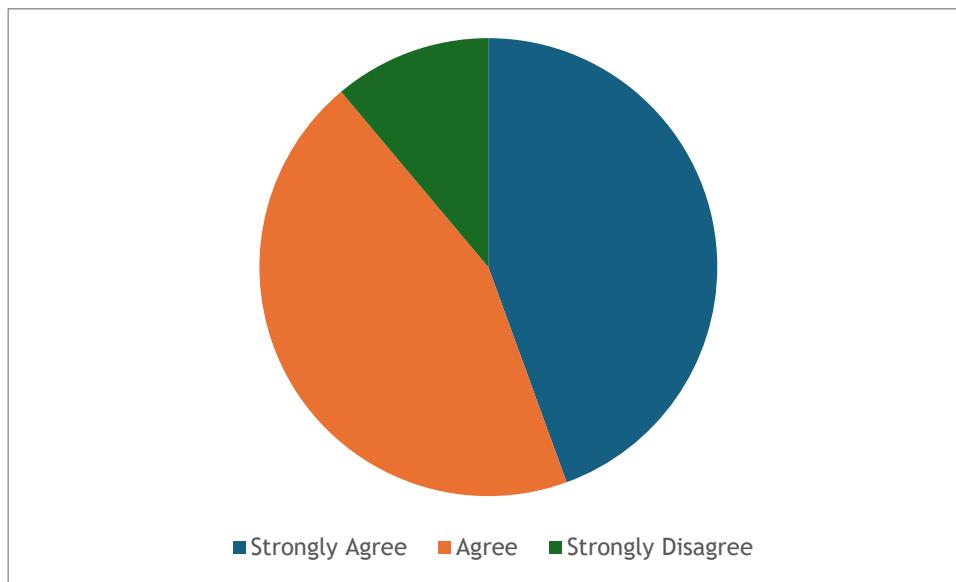


Figure 54: Understanding and explaining the cardiovascular risk score.

C: Explaining the results to the patients.

Out of 18 responses, 44% of people strongly agreed, 39% agreed, and again two responders (11%) strongly disagreed.

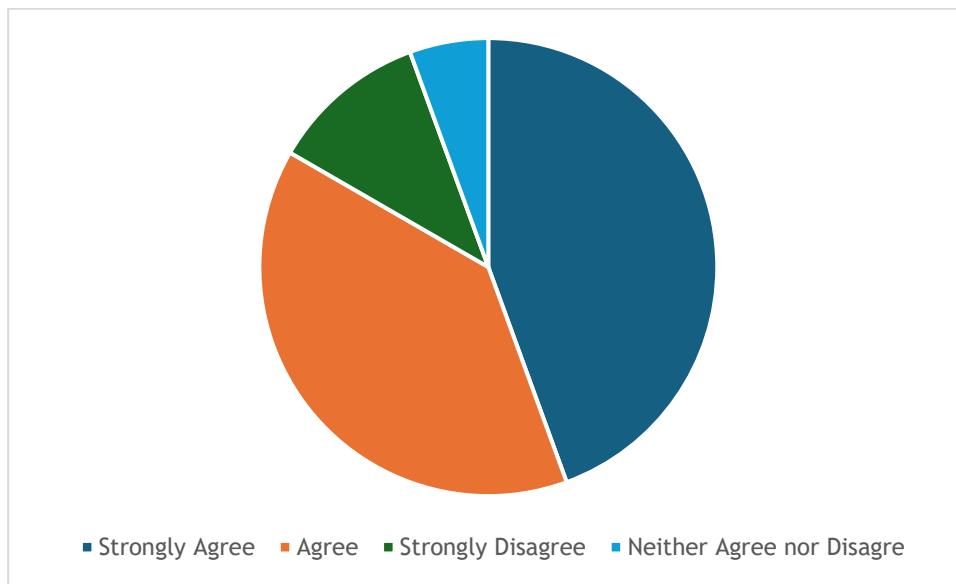


Figure 55: Explaining the results to the patients

D: Answering patient questions about their results.

Out of 18 responses, 44% of people strongly agreed, less people agreed than in the other domains in this question (33%) and again two people strongly disagreed.

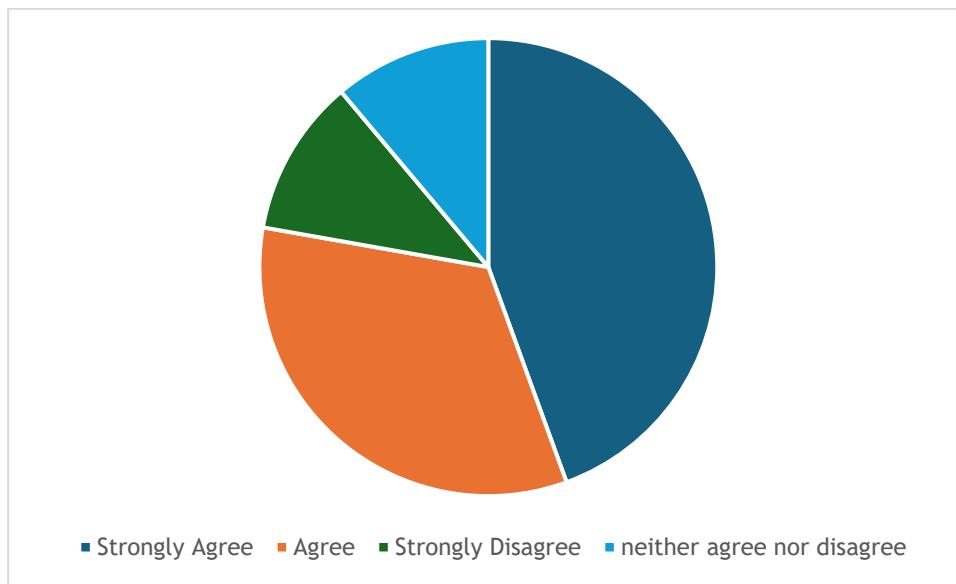


Figure 56: Answering patient questions about their results.

E: Understanding the importance of cardiovascular disease prevention.

Out of 18 responses, 50% strongly agreed, 39% agreed, and again, two people strongly disagreed.

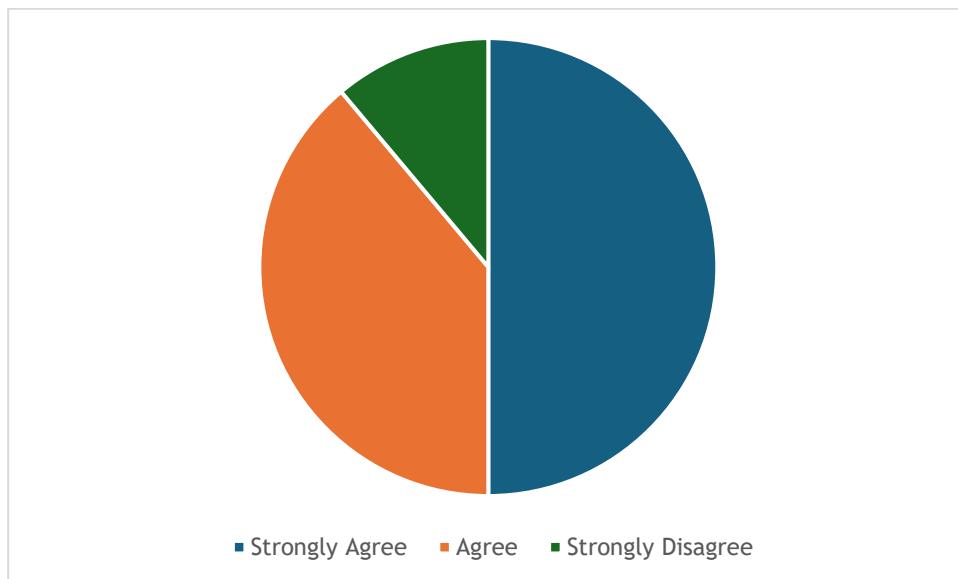


Figure 57: Understanding the importance of cardiovascular disease prevention.

Question 8: What, if anything do you feel could improve the NHS health check training offer in East Sussex?

Out of the 19 survey respondents, 7 answered this question.

The small number of responses to this question meant it is not possible to identify predominant themes in the answers. However, the individual responses suggested that NHS Health Check training may be improved by providing more frequent training (dates) and refresher training, an NHS Health Check reference pack; in-house assessment/competency checks; and improved content for those specifically over 65 who may have higher age-related risks.

Question 9: On average, how much time are you given to deliver an NHS health check appointment?

All 19 people responded to this question.

Most people are given 21-30 minutes per appointment (68%). 21% delivered 31-40-minute appointments, and the rest (10%) delivered 11-20-minute appointments.

16 people responded with the average number of minutes they had allocated to them per appointment:

The average number of minutes was 13.6 minutes.

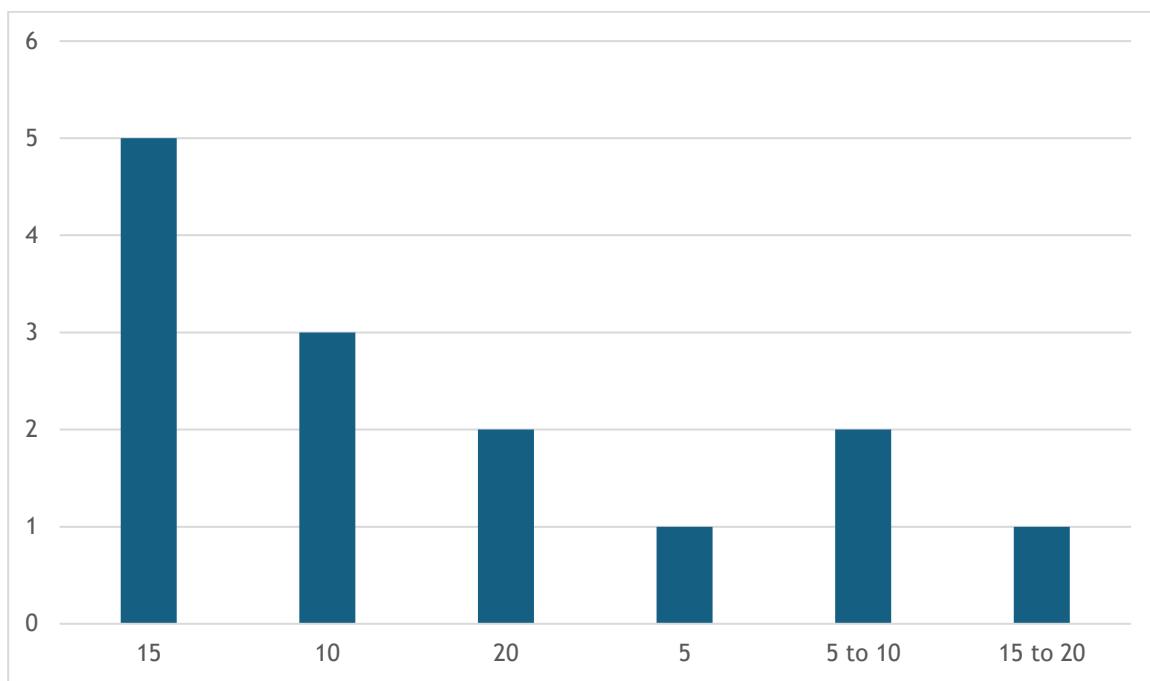


Figure 58: On average, how much time are you given to deliver an NHS health check appointment?

Question 10: Do you feel you have enough time to provide a good quality NHS health check?

All 19 people responded to this question. Most people said they have the right amount of time (42%). The second highest number of people said they just about have time (32%) and more than enough time (16%). One person said they don't have enough time, and another said they were not sure.

8 people went on to explain their responses to this question:

The one person who said they did not have enough time said that “anything less than 30 minutes was not enough”. Those that said they had more than enough time did not comment on why. Of those who said they just about had time, four people provided reasons that some appoints may take longer, including: if someone had many questions, or questions outside of the contents of the health check; if someone needed to discuss making lifestyle or other changes; or if referrals were needed. One respondent also mentioned that some found these appointments emotional which could impact on the time taken for an appointment.

Of those who said they had the right amount of time, one person said that the time allowed for detailed conversations and that 30 minutes was optimal.

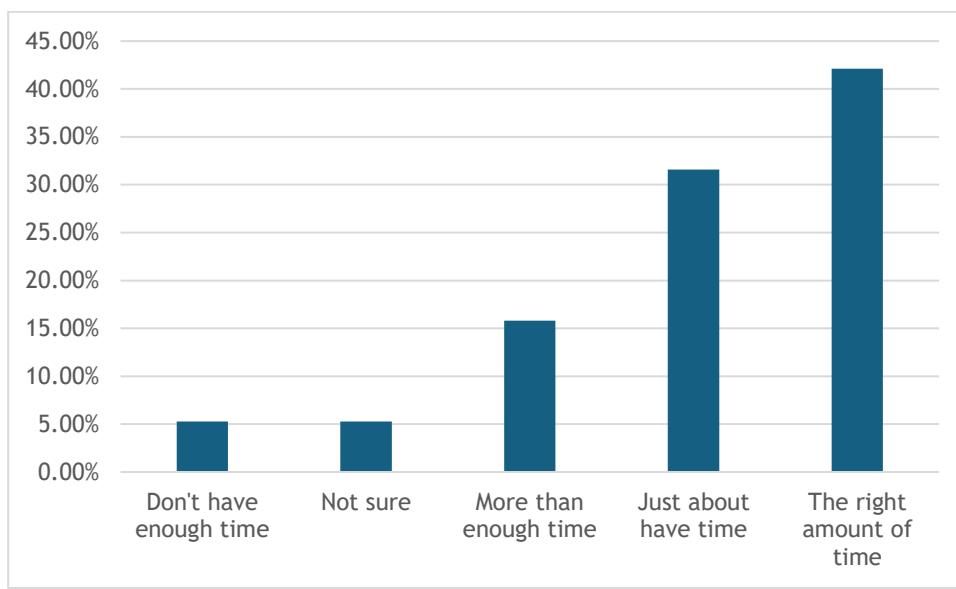


Figure 59: Do you feel you have enough time to provide a good quality NHS health check?

Question 11: How much do you agree or disagree with the following statements about having behaviour change conversations?

A: I have the knowledge and skills to have behaviour change conversations.

19 people responded to this question, and out of those, 47% strongly agreed and 47% agreed. One person strongly disagreed.

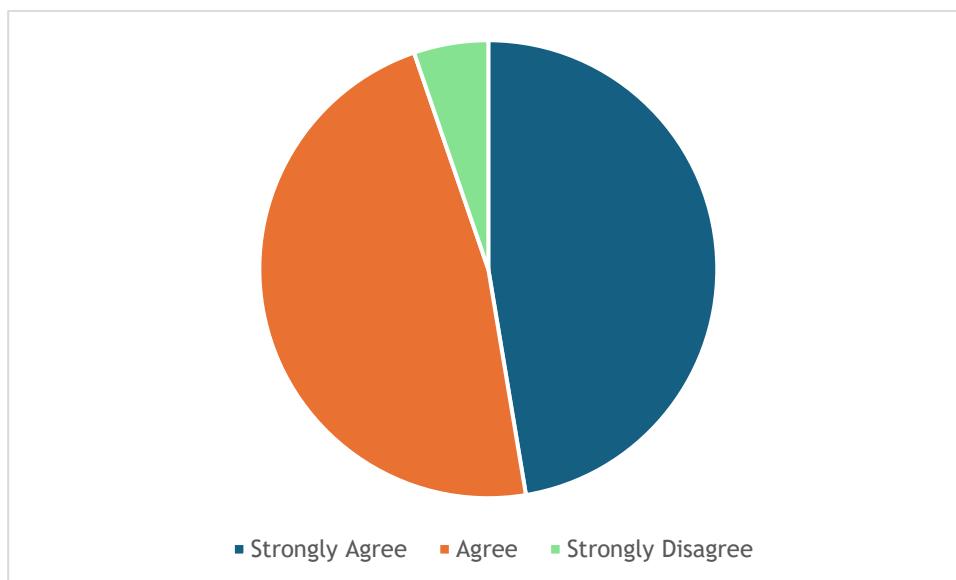


Figure 60: I have the knowledge and skills to have behaviour change conversations.

B: I am confident in having behaviour change conversations.

19 people also responded to this question. 53% strongly agreed, 37% agreed. One person neither agreed nor disagreed, and one person strongly disagreed.

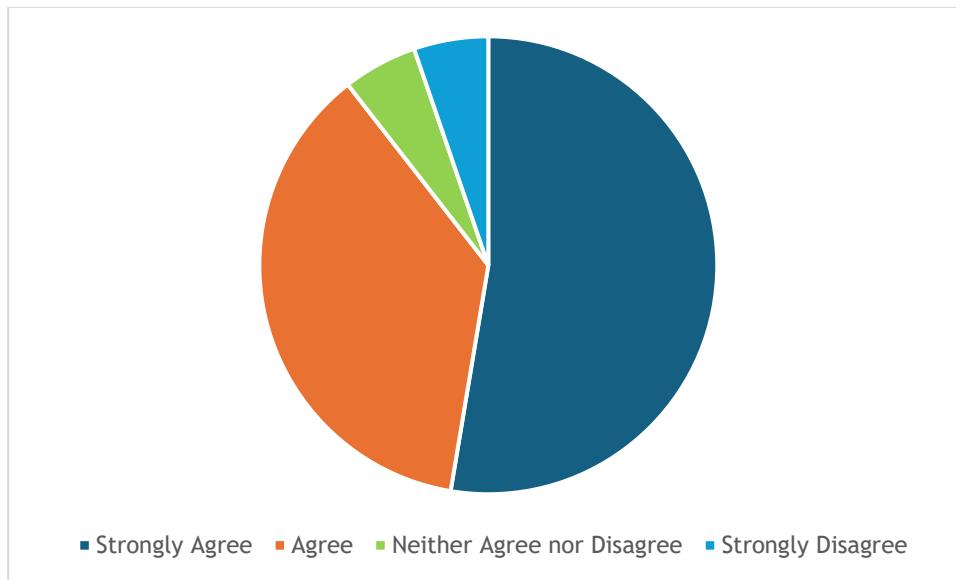


Figure 61: I am confident in having behaviour change conversations.

Question 12: How confident do you feel about having behaviour change conversations on the following topics?

Talking about smoking cessation

47% of respondents were very confident and 47% were fairly confident. One person said they were not very confident.

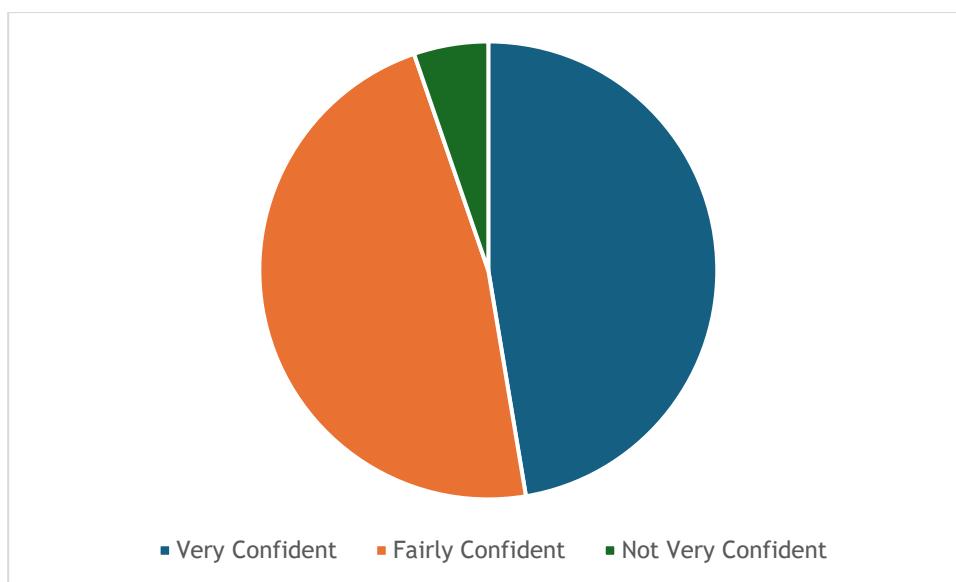


Figure 62: Talking about smoking cessation

B: Talking about weight management.

63% were very confident and 32% were fairly confident. One person said they were not very confident.

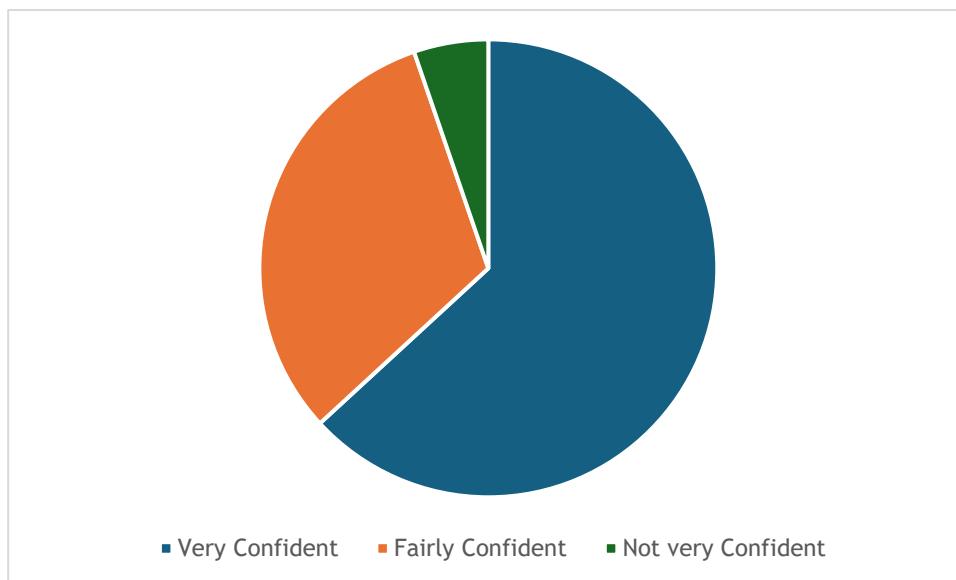


Figure 63: Talking about weight management.

C: Talking about alcohol consumption.

68% were very confident, (even more than talking about weight and smoking cessation), 32% were fairly confident. In this topic, everyone voted that they were confident to some extent.

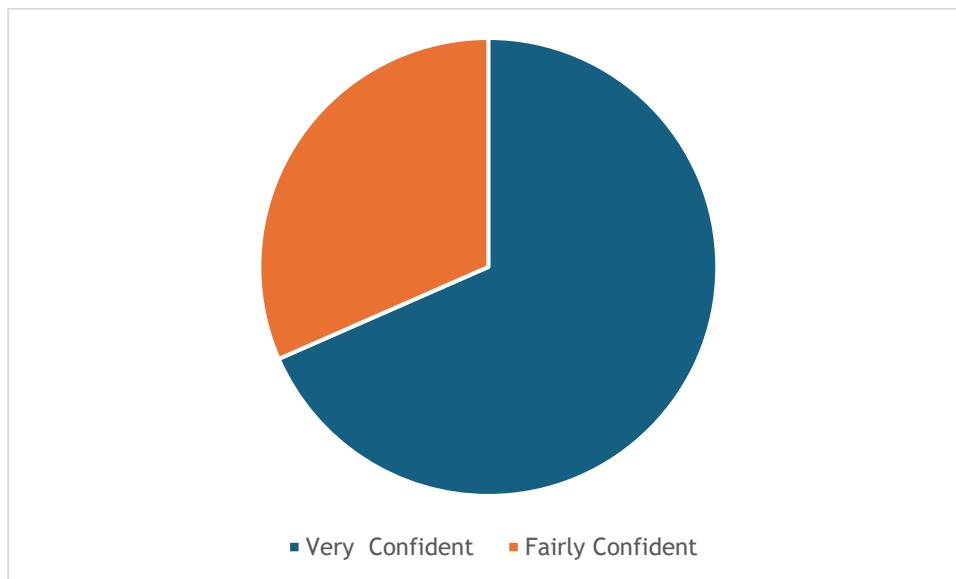


Figure 64: Talking about alcohol consumption.

D: Talking about physical activity

Like the topic of alcohol consumption, 68% of people voted that they were very confident, and 32% voted they were fairly confident.

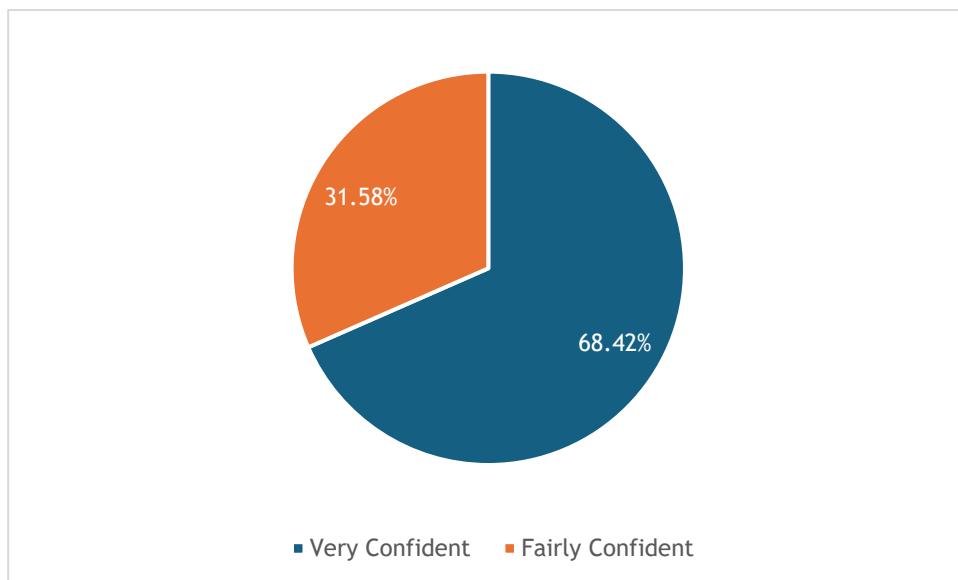


Figure 65: Talking about physical activity

E: Confidence referring people to services for support with healthy lifestyle changes.

18 people responded to this question and out of those 78% were very confident, and 17% were fairly confident. One person voted that they were not very confident.

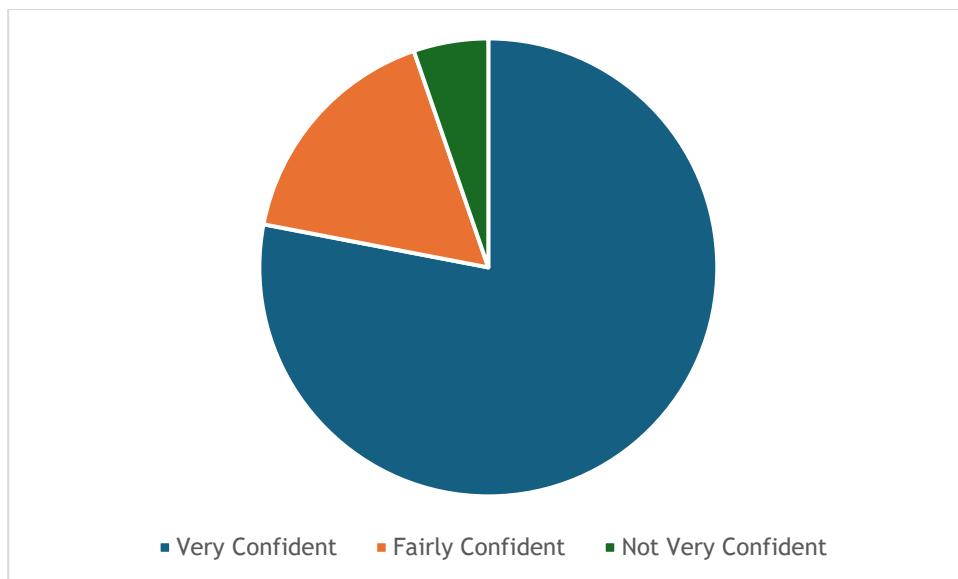


Figure 66: Confidence referring people to services for support with healthy lifestyle changes

Question 13: In your experience how long does it take for a patient to attend a follow-up appointment with their GP if they need one after their NHS Health check?

All people responded to this question, and most people said it took between 2-4 weeks (37%) and 26% said it took 1-2 weeks. 21% of people said it took from 1-2 months and 16% of people were not sure.

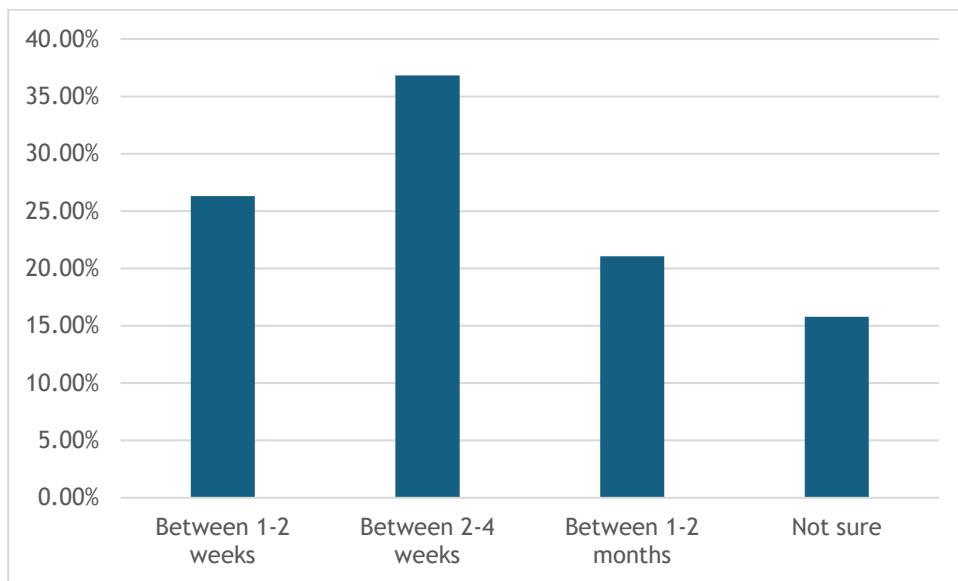


Figure 67: In your experience how long does it take for a patient to attend a follow-up appointment with their GP if they need one after their NHS Health check?

Question 14: What aspects of the NHS health check programme, if any, do you feel work well to achieve the best outcomes for patients, and what could be improved?

A: What works well.

There were 12 responses to this part of the question, and they were fairly heterogenous.

The two key themes identified as working particularly well in NHS Health Checks delivery were the **invitation to attend the health check** and **detecting specific illnesses**. Several respondents noted that aspects of the invite such as the language used in the invite and the use of text messaging were working well to engage people and get people to respond ². It was also noted that the use of NHS Health Checks for detecting specific illnesses, in particular CVD, diabetes, and high blood pressure, was working well to achieve the best outcomes for patients.

² This is interesting to note considering uptake has been declining over the last few years.

There was also some consensus that the **software** (“Accurx”, the “Cobas machine” and “the system”) worked well, and that health checks were effective in terms of patients feeling reassured and that it’s a valuable use of time.

Other aspects of the programme identified as minor themes on aspects of the programme that are working well include: making referrals to other services, such as follow up with GP/Clinicians or for further blood test; the ability to get immediate results ; the content of the consultation in terms of the range of topics discussed; the fact that consultations can be in varied settings and with nurses rather than GPs; and that there’s opportunity for more detailed discussion with patients.

B: What could be improved

There were 11 responses to this part of the question.

There were few themes identified across those that responded, although there appeared to be some consensus that resources (namely leaflets and signposting links), software (the Cobas machine/system) and time allocated to the NHS Health Check programme could be improved. Respectively, respondents mentioned wanting more leaflets and more links for the patient.

Other aspects raised by individuals as needing improvement included: lack of capacity, that the advert name was misleading, and that people should be using the QRISK3 score (rather than QRISK2); improved physical activity questions; and anecdotal evidence that patients may not like a finger-prick test only for cholesterol.

Question 15: In your experience, is there anything in particular about the NHS health check that patients like or dislike?

A: What patients like about the health check.

There were 14 responses to this question.

The most dominant theme relating to what patients like from the respondents perspective, was understanding specific results, namely cholesterol, HbA1c, heart age and QRISK. They also noted that patients appear to value getting results quickly and being able to take them home.

Two more minor themes identified were the feeling of being reassured and looked after from an NHS Health Check, and having a space to talk and discuss both the Health Check and other matters.

Other aspects of the Health Check identified by respondents as being liked by patients were the appointment structure (length of time and colour coding system), the booking process

(ease and availability of appointments), awareness of change (lifestyle changes and “how to change things”) and software (Cobas machine and Health Diagnostic Software and report).

B: What patients dislike about the health check.

There were 15 responses to this part of the question.

The two aspects of the programme that there was most consensus about from respondents in terms of being disliked by patients were that they sometimes wanted other investigations, including HRT/Hormone checks, PSA/Prostate checks and generally more blood tests, and making/being told to make changes in their lifestyle to benefit their health.

Other aspects mentioned by multiple respondents as being disliked by patients were discussing specific risk factors such as weight, alcohol and smoking, getting results, the invitation lacking clarity or being too frequent and the limitations on tests offered.

Question 16: In your experience of delivering NHS health checks, is there anything you think encourages or discourages people to engage and receive their health check?

A: What encourages?

15 people responded to this part of the question.

There was one dominating theme which was previous experience of a healthcare setting. Respondents cited having had a health check in the past and wanting another, having a recent family illness or death, having family or friends who have had a health check, and having had a personal health scare.

Other factors multiple respondents perceived to be motivating people to have a health check include invites (the ease of invites, being invited by a GP, being ‘instructed’ to have one and receiving a letter) and the opportunity to understand health (how to improve their health, wanting to gain clarity on family history, understanding how changes might lead to a happier life and specifically understanding heart health).

Lesser themes emerging from the responses were that the approach of the health check and its preventative nature. In the experience of those providing NHS Health Checks, patients appreciate that the approach is “non-judgmental”, “supportive of change” and “reassuring”, and that it aims to prevent high blood pressure, high cholesterol and diabetes.

Respondent also raised the easy and availability of bookings, access to the GP surgery, testing cholesterol and personal motivation to remain healthy as motivators.

B: What discourages?

There was a strong consensus that fear was the predominant factor dissuading people from having a health check, particularly with regards to fear of finding out/of a worrying result and fear of being 'told off'.

The next most dominating theme was lack of understanding: of why the health checks are done; of the value of it; of what the check is; and in a preventative approach that you did not have to be unwell to attend.

Other factors raised by multiple respondents included having the time to attend and having to take time off work, as well as a lack of appointments, and a negative previous experience of health checks, relating either to the practitioners seen or specifically that a health check diary hadn't been reviewed.

Question 17: Are there any particular groups or populations you feel are less likely to engage with the NHS health check programme?

13 people responded to this question.

There was a large amount of heterogeneity in these answers, making it difficult to establish dominant themes. the younger population (young men and women in their teens to early 40's) and people living in deprived areas were the only groups/populations raised by more than one person.

The groups/populations cited by single respondents included: men; people in their 50s; those in their 60s; people with young children; the traveller community; homeless people and 'less-educated' people.

Question 18: Please share any other thoughts or comments you have about the NHS health check programme in East Sussex.

Only 7 people responded to this plea for thoughts and comments. Out of those comments, there was a 50-50 split between positive comments and comments suggesting areas of improvement or citing negative thoughts about the health checks.

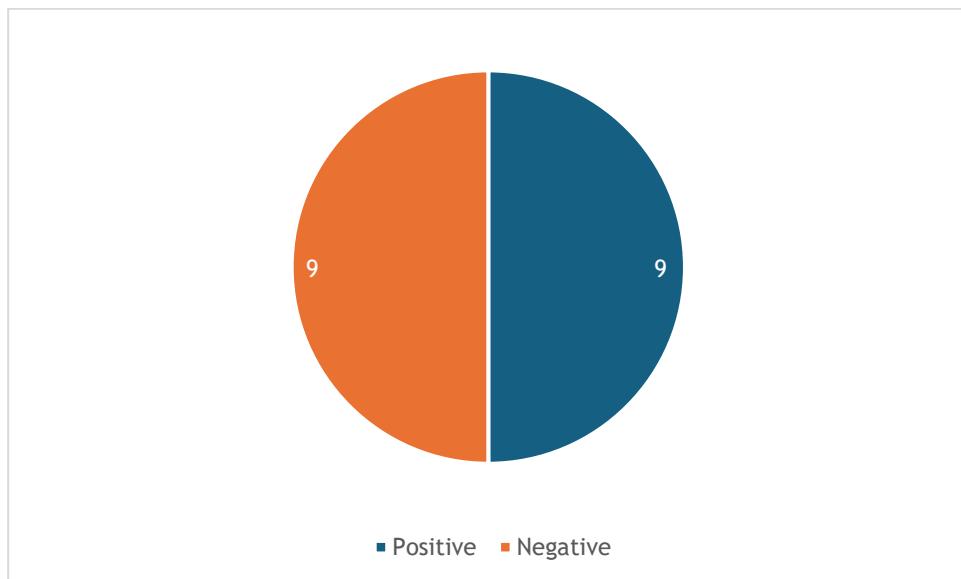


Figure 68: Please share any other thoughts or comments you have about the NHS health check programme in East Sussex

Positive comments

Respondents who wrote positive comments about the health checks referred most often to the theme **accessing healthcare**: as an opportunity for patients to ask questions, to see a real person and to discuss “various” things. A minor positive theme was that they **evoked specific patient feelings** of being “motivated” and “happily surprised”.

Other respondent perspectives include the health check as “improving patient lives”, making ‘us’ more approachable, identifying needs and one respondent spoke of “loving” doing the health checks.

Theme: Negative comments/suggestions for improvement

Out of the more negative comments to this request for comments, **cost** and **software** came up twice. In theme ‘**cost**’, respondents cited that the appointment did not generate income, and that the software (Cobas discs) was expensive.

Other negative perspectives about the health checks included that the health checks were “basic” and “old-fashioned”. Other respondents referred to software in this section, hoping that health diagnostics software or templates would be taken up. Other single perspectives were the need for more advertising, for better appointment times and that they feared the health checks would not be satisfying.

Summary Analysis

The 2024 NHS Health Check Survey was conducted to gather insights from healthcare providers across East Sussex on the delivery, training, and effectiveness of the NHS Health

Check programme. The survey aimed to identify what is working well, where improvements are needed, and how confident practitioners feel in delivering key components of the checks.

Respondent Profile

The majority of respondents were healthcare assistants working in GP surgeries, with nearly half having over five years of experience delivering NHS Health Checks. Most practitioners deliver checks more than once a week, indicating regular integration into clinical routines.

Although there were only two respondents from OYES, at the time this survey was completed, two practitioners were the only ones within OYES delivering NHS Health Checks across East Sussex.

Training and Competency

While most practitioners had received face-to-face training, refresher training was not being taken up despite regular training available through OYES with many not having updated their knowledge in over two years. Confidence in delivering checks and discussing cardiovascular risk was generally high, though a small subset expressed significant dissatisfaction with training outcomes regarding conversations. To encourage practitioners to take up the offer of refresher training delivered by OYES, it is recommended that this course is more widely promoted and also promoted through different channels

Population Engagement and Invitations

Text messaging was the dominant method for inviting patients, though many practitioners were unsure how targeted demographics were approached. Public Health provide monthly dashboards with GP Practice level information (eligibility, invites, uptake) and regular practice catch up as and when practices need. This is a passive approach and so a recommendation is to be more pro-active and set up bi-yearly drop-in sessions for practices to drop in with their questions, or to reach out and visit practices who need support.

Time Allocation and Quality

Most practitioners reported having 21-30 minutes per appointment, which was generally seen as sufficient. However, some noted that complex or emotional consultations required more time.

Behaviour Change Conversations

Confidence in discussing lifestyle changes, especially alcohol, physical activity, and weight was high. Practitioners felt well equipped to refer patients to support services.

Programme Strengths and Weaknesses

Practitioners highlighted the programme's success in detecting conditions like CVD and diabetes and praised the use of technology and immediate results. However, improvements were suggested in resources (e.g. leaflets), software reliability, and appointment time.

9. Discussion

This evaluation aimed to provide a comprehensive assessment of the NHS Health Check programme in East Sussex, examining its effectiveness in identifying cardiovascular risk across different delivery models, its equity in reaching underserved populations, and its value to the wider health system. The findings highlight several key themes that merit further exploration.

“To what extent does the NHS Health Check programme in East Sussex balance early detection, equitable access, and long-term value within the practical realities of local delivery and ongoing system change?”

To address this overarching question, the discussion explores six interrelated themes that emerged from the evaluation:

- How does the NHS Health Check Programme compare to the findings of the literature review?
- How effectively does the programme identify and manage cardiovascular risk in the population?
- To what extent does delivery across different models and areas support equitable reach and outcomes?
- What differences in outcomes and engagement emerge between GP-led and OYES-led provision?
- How accurately does current economic modelling reflect the long-term impact of NHS Health Checks?
- Can the Ready Reckoner health outcomes be accurately compared with observed evaluation findings?
- Comparison with Ready Reckoner Anticipated Health Outcomes
- How do provider experiences and wider system change influence the sustainability and effectiveness of delivery?

The discussion considers both the performance of the NHS Health Check programme and the context in which it operates, recognising that effectiveness is shaped not only by detection of cardiovascular risk but also by delivery mechanisms, system pressures, and evolving health inequalities across East Sussex.

How does the NHS health Check Programme compare with the findings of the Literature review?

The findings of this evaluation demonstrate a high degree of alignment with the national and international evidence on NHS Health Checks, while also revealing important local nuances in delivery, follow-up, equity, and workforce variation. The literature consistently emphasises the programme's potential to identify undiagnosed cardiovascular and metabolic risks, but also highlights systemic challenges in achieving consistent follow-up, equitable

access, and standardised delivery. The East Sussex evaluation confirms these patterns, often with more granularity, and in some areas strengthens existing evidence by providing clearer pathway-level insights and specific differences between delivery models.

The literature demonstrates that NHS Health Checks reliably identify individuals with hypertension, hypercholesterolaemia, diabetes, and NDH (Artac; McCracken^(8,9)). The East Sussex data strongly corroborates this evidence. High blood pressure was identified in 24.4% of all NHS Health Checks, making it the most prevalent clinical risk factor locally, mirroring national findings that hypertension is consistently the most frequently detected condition in the programme. Elevated HbA1c levels were also detected at comparable rates (4.9% in GP-delivered checks and 4.0% in OYES-delivered checks) and follow-up results showed that approximately two-thirds of individuals with very high HbA1c levels were diagnosed with diabetes after confirmatory tests, again consistent with national research on early case-finding pathways (Fig. 4-5).

The identification of individuals with a QRISK score of 10-20 (23% of all NHS Health Checks) and 20+ (a smaller proportion) also closely aligns with the literature's depiction of NHS Health Checks uncovering moderate to high cardiovascular risk among middle-aged adults.

These findings reinforce that, in East Sussex, the programme is performing its foundational function of early detection, at rates consistent with national studies.

A theme across the literature is the presence of variation in delivery quality between settings, practitioners, and commissioning arrangements. Studies by Debiec, Duddy, Gadsby, and Hyseni^(13,14,15,16) collectively show that:

- Some providers emphasise screening only, while others focus on prevention.
- Follow-up varies significantly depending on delivery model.
- Commissioning arrangements and training influence quality.
- The programme is experienced differently across the country due to system fragmentation.

The East Sussex findings not only confirm these issues but provide specific and measurable examples that strengthen the national evidence base.

Individuals identified with high blood pressure through OYES were significantly more likely to attend follow-up (68.1% vs 49.5% in GP-delivered checks), and more likely to receive a hypertension diagnosis. However, OYES-engaged individuals were less likely to be prescribed antihypertensive medication at first and second follow-up stages (Fig. 6). This demonstrates the dual nature of community delivery: successfully motivating follow-up attendance, but relying on GP judgement for prescribing, leading to differentiated outcomes.

GP-delivered checks resulted in 33.7% of high-risk patients receiving a statin prescription, compared with 22.0% in OYES-delivered checks (Fig. 8). This pattern mirrors national

findings that prescribing behaviour is influenced by setting and how a patient first engages with an NHS Health Check.

Patients initially engaged with OYES were significantly more likely to decline statins across cholesterol and QRISK categories. This suggests that behaviour-change-focused appointments may shape expectations, or that OYES reaches cohorts with different levels of health literacy, perceptions of medication, or readiness to change.

Furthermore, the literature identifies follow-up as the weakest point in the NHS Health Check pathway, with Debiec's research indicating that one-third of high-risk patients nationally receive no follow-up. The East Sussex evaluation reveals similar and sometimes more pronounced gaps.

- QRISK 10-20: Approximately 75% of individuals within this moderate-risk category had no recorded statin offer or decision, limiting opportunities for timely primary prevention (Fig. 7)
- High cholesterol: Significant differences were found in statin prescribing and declination, patients initially engaged with OYES were more likely to decline a prescription offered by the GP and those initially engaged with the GP more likely to accept a prescription.

The East Sussex evaluation therefore reinforces the literature's critiques but also provides clearer evidence of pathway-level breakdowns that warrant targeted intervention.

Adding to the analysis, the literature reports persistent inequalities in NHS Health Check uptake, with people in deprived areas, smokers, and low-income groups less likely to attend despite greater health need (Martin; Lang; Dryden). Ethnic disparities are variable and context dependent.

Between 2018-20 and 2022-24:

- Invitations to ethnic minority residents increased from 2,612 → 4,424.
- Invitations to IMD1 residents increased from 9,881 → 14,312.
(Equity Section, Table 20)

Despite increased invitations, uptake among the most deprived groups remained lower, supporting Dryden's conclusion that structural and socioeconomic barriers limit attendance even when access improves. Garriga found that individuals with SMI were more likely than the general population to attend NHS Health Checks. East Sussex data supports this trend, showing strong engagement from SMI cohorts and high levels of detected need. The literature highlights limited research on learning disabilities and smokers. East Sussex similarly has limited data to assess outcomes for these groups, confirming this national evidence gap.

The literature (Mistry, 2022) concludes that NHS Health Checks are cost-effective and meet NICE cost-per-QALY thresholds. The East Sussex economic evaluation confirms this:

- **Cost per QALY:** £1,753 – far below NICE acceptable thresholds.
- **Benefit-Cost Ratio:** 1.09 by Year 20, with net savings of £238,000.
(Economic Evaluation Section)

This alignment reinforces the national understanding that NHS Health Checks represent a sustainable long-term investment, even when follow-up is variable.

How effectively does the programme identify and manage cardiovascular risk in the population?

The evaluation demonstrates that the NHS Health Check programme in East Sussex makes a meaningful contribution to the early identification of behavioural and clinical cardiovascular risk factors among individuals aged 40-74. Behavioural data show that overweight, obesity, and physical inactivity remain the dominant modifiable risks locally, with nearly 60% of patients having a BMI of 25 or above and one in five recorded as inactive. Smoking prevalence, at 10.8%, remains similar to national averages, while alcohol-related risk appears notably low. This likely reflects limitations in the use of AUDIT-C rather than genuinely lower consumption levels, as the tool is known to be less sensitive to episodic heavy drinking and vulnerable to social desirability bias, particularly in brief interactions. This suggests that while the NHS Health Check offers a valuable opportunity to identify and discuss lifestyle risks, there is a need for greater consistency in how behavioural tools are applied, particularly alcohol, and for more systematic referral into behaviour change services.

Clinical outcomes indicate that high blood pressure and moderate cardiovascular risk (QRISK 10-20%) are the most frequently identified conditions, highlighting the programme's value in identifying individuals at elevated risk of future cardiovascular events. Both GP and OYES delivery models performed comparably in identifying raised HbA1c, NDH, and diabetes risk, indicating that the mixed-delivery approach remains reliable for detecting clinical risk factors. However, the evaluation shows that progression from identification to diagnosis and management varies. For example, while follow-up and diagnosis rates for high HbA1c were consistent across providers, notable variation emerged in hypertension management. Individuals identified with high blood pressure through OYES were significantly more likely to attend a GP follow-up appointment compared with those identified within GP practices themselves. This may reflect differences in appointment structure, practitioner emphasis, or reliance on patient activation across settings.

Several structural and behavioural explanations underpin this variation. In GP-delivered checks, patients can typically book a follow-up appointment immediately as they leave the practice. In contrast, OYES-delivered checks require either the patient to proactively book with their GP or the practice to initiate contact after receiving results via SmartGP; the extent to which this occurs is variable. Furthermore, OYES appointments often allow more

time for lifestyle discussion, which may lead some patients to attempt behavioural changes before pursuing medication. These factors, alongside differences in practitioner communication style and continuity of care, may influence diagnosis and prescribing outcomes.

Statin prescribing varied by both risk group and delivery model. Among individuals with QRISK scores above 20, statin prescribing was significantly higher in GP-delivered checks (33.7%) compared with OYES (22.0%). Patients identified by OYES as having high cholesterol were also more likely to decline statins than those seen by GPs. These differences likely reflect a combination of communication approaches, population characteristics, and the influence of long-standing relationships with GP practices on patient trust and decision-making. Further qualitative exploration of practitioner perspectives and patient experiences would help to ensure consistent and equitable cardiovascular risk management across pathways.

The findings relating to chronic kidney disease are particularly notable. Despite one in four individuals presenting with high blood pressure, a major CKD risk factor, and nearly half undergoing serum creatinine testing, only 0.2% were recorded as having CKD. This is below expected prevalence estimates (10-15%)⁽⁵²⁾, suggesting potential under-diagnosis or incomplete coding within systems. More systematic investigation and recording of kidney function markers would strengthen early detection and improve the programme's contribution to comprehensive cardiovascular prevention.

Variation in behavioural and clinical outcomes reflects the interplay of multiple factors, including coding practices, thresholds for clinical action, information transfer limitations, and patient-level influences. Chronic kidney disease exemplifies these complexities: high testing rates coexist with very low diagnosis rates, suggesting both pathway and recording gaps. This highlights the conceptual point emphasised in prevention theory: detection alone is insufficient; the preventive value of screening programmes is contingent upon integration within clinical pathways and the capacity to support behavioural change⁽⁴³⁾. Likewise, the findings align with the socio-ecological model of health, where individual outcomes are shaped by organisational structures, delivery models, and social determinants^(44,45). Together, these perspectives emphasise the need for multi-level interventions to strengthen the programme's impact.

Although the evaluation demonstrates that NHS Health Checks are effective at identifying behavioural risk factors, it did not examine the subsequent management of these risks. Specifically, the evaluation was not able to assess whether individuals were referred into, or engaged with, commissioned behaviour change support services, such as One You East Sussex. The provider survey indicated that practitioners feel broadly confident discussing smoking, diet, physical activity and alcohol, but the data does not capture what happens next.

Future evaluations could be strengthened by incorporating referral data:

For GP-delivered checks, referral codes to OYES following an NHS Health Check could be extracted.

For OYES-delivered checks, referral information is available (e.g., 22% of smokers identified during OYES-delivered NHS Health Checks last year were referred to stop smoking support).

Although referral data does not measure behaviour change, it provides evidence of the “so what?” of the NHS Health Check and could inform recommendations around the need for more systematic referral into lifestyle support services.

Overall, the NHS Health Check programme in East Sussex is effective at detecting a broad spectrum of cardiovascular and behavioural risks, but variation in follow-up, statin prescribing, alcohol screening, and CKD management limits its full impact. Strengthening these processes, particularly the pathways linking identification to clinical and behavioural management, will enhance both the clinical value and equity of the programme across the county.

What differences in outcomes and engagement emerge between GP-led and third-party provision?

This evaluation shows that GP-led and OYES-delivered NHS Health Checks each offer distinct strengths in identifying and managing cardiovascular risk, but they differ in how effectively individuals progress from initial assessment to follow-up, diagnosis, and treatment. These differences are driven not by variation in the accuracy of risk identification, which is broadly comparable across both models, but by the structural pathways that follow each type of appointment.

Across both models, identification of elevated HbA1c, Diabetes risk, including individuals identified with non-diabetic hyperglycaemia (NDH), and cholesterol was consistent, demonstrating that third-party provision does not dilute ability to identify risk factors. However, once risk is identified, GP-led checks tend to achieve more consistent clinical management. Individuals who undergo an NHS Health Check in their GP practice are more likely to receive diagnostic tests, be prescribed medication, and have risk formalised in their medical record. This likely reflects the advantages of continuity of care and the integrated appointment workflow within general practice. In GP-delivered appointments, follow-up can usually be booked before the patient leaves the surgery, reducing friction in the care pathway.

In contrast, OYES-delivered NHS Health Checks excel in reach and accessibility, particularly among groups less likely to engage with traditional GP practices. OYES delivers a higher proportion of checks to men, individuals in IMD1 areas, and people who experience socio-economic barriers to GP engagement. These groups are known nationally to have lower uptake of preventive care and lower adherence to long-term condition management, suggesting OYES is successfully extending the programme’s reach into underserved

communities. OYES appointments may also allow more time for lifestyle discussion, offering immediate opportunities for personalised support around smoking, alcohol, diet, and physical activity, an important asset for behaviour change-oriented prevention.

However, translating this increased reach into clinical management is more complex. While individuals identified with high blood pressure during OYES checks were more likely to attend a GP follow-up appointment than those identified in GP-delivered checks. While individuals originally engaged through OYES were more likely to receive follow-up and to have hypertension diagnosed, they were less likely to be prescribed antihypertensive medication.

This reflects differences in how follow-up and subsequent clinical decision-making operate across delivery models. Individuals identified with high blood pressure through OYES were more likely to attend GP follow-up compared with those identified through GP-delivered NHS Health Checks. However, despite higher follow-up and diagnosis rates, they were less likely to be prescribed antihypertensive medication. This suggests that differences arise later in the pathway, potentially reflecting clinical sequencing, shared decision-making, or a greater emphasis on initial lifestyle management following diagnosis.

Similar patterns were observed in statin prescribing. Among individuals with QRISK 10-20, GP-led checks resulted in substantially higher prescribing rates than OYES. OYES-identified patients were also more likely to decline statins when offered. This may reflect differences in communication style, the characteristics of the populations reached by OYES, and the relationship-based nature of prescribing decisions in general practice, where continuity of care and established clinician-patient relationships can influence acceptance of preventive medication. It may also reflect differences in the emphasis placed on behaviour change and lifestyle management during consultations, with OYES-delivered NHS Health Checks potentially placing greater focus on non-pharmacological approaches prior to the initiation of medication.

The evaluation did not examine differences in referrals to OYES following an NHS Health Check between GP and OYES delivery, meaning that conclusions about behavioural risk management cannot be drawn at this stage. Future work could strengthen this area by assessing referrals to lifestyle support services, including smoking cessation, weight management, and alcohol support, as well as OYES's internal referral mechanisms, and by tracking subsequent client outcomes.

Overall, the two delivery models serve complementary functions within the NHS Health Check programme. GP-led provision offers stronger clinical follow-through and integration into long-term care pathways, while OYES-delivered provision advances equity, accessibility, and patient engagement. A hybrid approach, maintaining GP oversight for clinical management while leveraging OYES's strengths in outreach and behavioural support, presents the greatest opportunity for equitable and effective prevention. Strengthening referral pathways, reducing friction in follow-up processes, and ensuring consistent

communication between providers will be essential to maximising the preventive impact of both models.

How accurately does economic modelling reflect the long-term impact of NHS Health Checks?

Having examined the differences in outcomes and engagement between GP-led and OYES-led NHS Health Check delivery, it is important to consider the economic implications of these models. Understanding the costs associated with invitation, uptake, clinical follow-up, and preventive interventions, alongside the relative effectiveness of each approach, provides critical insight into value for money and the long-term sustainability of the programme. Assessing economic efficiency alongside health equity helps inform decisions on resource allocation, ensuring that investments maximise both preventive impact and equitable access. It is important to note, however, that this economic evaluation draws solely on GP-delivered NHS Health Check activity, as OYES-delivered checks do not currently have compatible activity and costing data for full economic modelling.

Despite this limitation, the economic evaluation demonstrates that the NHS Health Check programme in East Sussex provides substantial economic value, both in projected health outcomes and in potential cost savings to the healthcare system. Using the NHS Health Check Ready Reckoner tool, this evaluation estimated the downstream benefits associated with the prevention of cardiovascular disease, earlier diagnosis of high-risk conditions, and reduced utilisation of acute and long-term healthcare services.

A key indicator of economic value is the cost per Quality-Adjusted Life Year (QALY). For 2022/23, NHS Health Checks in East Sussex are projected to generate approximately 1,772 QALYs, with an estimated cost per QALY of £1,753. This is substantially below the commonly used NICE threshold of £20,000-£30,000, indicating that NHS Health Checks represent excellent value for money. In practical terms, relatively modest investments in preventive assessment result in meaningful improvements in both the length and quality of life for the local population.

The Ready Reckoner also illustrates the long-term financial trajectory of the programme. In the early years, programme costs exceed immediate savings, reflecting the delay between identifying risk, delivering interventions, and preventing future disease. By year 15, however, the model predicts the programme achieves net savings of £91,470, rising to £238,000 by year 20. The resulting BCR of approximately 1.09 demonstrates that for every £1 invested, the programme returns £1.09 in direct NHS cost savings. These estimates are conservative because they capture only direct healthcare benefits, excluding broader societal gains such as productivity improvements, reduced informal care requirements, and long-term social value.

Local commissioning arrangements also shape programme costs and must be considered in interpreting economic value. East Sussex utilises a tariff model that differs from the national assumptions embedded within the Ready Reckoner, including higher payments for checks delivered to priority groups and bundled point-of-care testing payments. These arrangements ensure programme quality, incentivise engagement of underserved communities, and support equity-focused delivery, but they also mean that national models may under- or overestimate true local costs. Even so, the Ready Reckoner provides a defensible and methodologically consistent baseline upon which future, more granular economic models can be developed as data quality improves.

Incorporating complementary evaluative approaches, such as distributional cost-effectiveness analysis and Social Return on Investment, would strengthen future assessments by more fully capturing the value of NHS Health Checks for reducing health inequalities and generating social benefit^(46,47). This is particularly relevant for OYES-delivered checks, which reach population groups with higher disease burden but for whom traditional economic models capture only a fraction of potential benefit.

The potential for greater economic impact is closely linked to uptake. In 2022/23, local NHS Health Check uptake was approximately 45%, increasing to 50% by 2024/25. Improvements in uptake not only increase population health gain but also enhance the overall return on investment by identifying more high-risk individuals earlier and enabling timely preventive action. Strengthening participation among underserved and high-risk groups, particularly those OYES is effective at reaching, would further amplify economic value by reducing long-term burden on healthcare services and generating larger cumulative QALY gains.

In summary, the economic evaluation provides strong evidence that NHS Health Checks are a highly cost-effective and sustainable preventive intervention. They deliver substantial improvements in health outcomes at relatively low cost, and they generate long-term financial savings for the NHS. Continued investment, paired with targeted strategies to improve uptake, optimise follow-up, and enhance equity, will further strengthen these economic returns and maximise the programme's preventive potential across East Sussex.

Can the Ready Reckoner health outcomes be accurately compared with observed evaluation findings?

A direct, like-for-like comparison between the observed outcomes of the East Sussex NHS Health Check evaluation and the health outcomes anticipated by the Ready Reckoner tool is not possible. The Ready Reckoner is a prospective economic model that estimates long-term population health outcomes and cost savings under assumptions of timely follow-up, diagnostic confirmation, and treatment uptake. In contrast, this evaluation is based on routinely collected clinical data and captures short-term process measures and intermediate outcomes within a limited follow-up period.

The Ready Reckoner models outcomes over a 20-year time horizon, including reductions in cardiovascular events, quality-adjusted life years gained, and downstream healthcare savings. The evaluation data, however, primarily reflects early stages of the care pathway, such as identification of risk factors, follow-up testing, diagnostic confirmation, and recorded prescribing. As a result, many of the health gains anticipated by the Ready Reckoner would not be expected to be observable within the timeframe or scope of this evaluation.

Despite these limitations, a directional and explanatory comparison remains valid and informative. The evaluation can assess whether observed outcomes align with the assumptions underpinning the Ready Reckoner and identify where attrition occurs along the care pathway that may limit the realisation of modelled benefits. In this context, differences between modelled and observed outcomes should be interpreted as reflecting real-world delivery, variation in follow-up and coding, and differences in service pathways, rather than shortcomings in programme effectiveness.

Comparison with Ready Reckoner Anticipated Health Outcomes

The evaluation findings are broadly consistent with the direction of impact anticipated by the Ready Reckoner. The East Sussex programme identifies substantial numbers of individuals with raised cardiovascular and metabolic risk, including high blood pressure, moderate and high QRISK scores, raised HbA1c, and atrial fibrillation risk. This aligns with the Ready Reckoner's assumption that NHS Health Checks identify previously unmet need and create opportunities for early intervention.

However, the evaluation demonstrates that attrition occurs along the care pathway between risk identification, follow-up assessment, diagnostic confirmation, and recorded treatment. For example, around half of individuals with raised blood pressure receive follow-up blood pressure measurement, and only a subset of those with persistently raised readings are subsequently diagnosed with hypertension. Similarly, although clinical guidance recommends statin offers for all individuals with QRISK scores of 10-20%, only a proportion have a statin outcome recorded within the dataset. These real-world patterns contrast with the Ready Reckoner's assumptions of near-complete follow-up and uptake and help explain why observed outcomes are lower than modelled projections.

Differences in delivery models further contribute to this gap. GP-delivered NHS Health Checks are more likely to result in immediate diagnosis, prescribing, and coding, whereas community-delivered checks rely on onward referral to general practice. As a result, some diagnostic and prescribing outcomes may occur outside the NHS Health Check data capture window and are not fully reflected in routine monitoring.

Importantly, where diagnoses are confirmed, downstream management appears effective. High proportions of individuals diagnosed with hypertension are treated to target, and anticoagulation prescribing among those diagnosed with atrial fibrillation is broadly

consistent with clinical expectations. This supports the Ready Reckoner's underlying assumption that treatment, once initiated, delivers clinical benefit and suggests that the main constraint on realising modelled outcomes lies earlier in the pathway rather than in ongoing management.

Overall, the East Sussex evaluation supports the validity of the Ready Reckoner as a tool for estimating the potential long-term impact of NHS Health Checks, while demonstrating how real-world delivery, follow-up, diagnostic practices, and data capture influence the extent to which these benefits are realised in practice. The comparison therefore provides explanatory insight into programme performance rather than a direct validation of the model's projections.

How do provider experiences and wider system change influence the sustainability and effectiveness of delivery?

Provider experiences, workforce confidence, and wider system factors play a central role in determining the sustainability and effectiveness of NHS Health Check delivery in East Sussex. Findings from the 2024 NHS Health Check survey show that practitioners value the programme highly, particularly for its ability to detect cardiovascular risk factors and initiate conversations about lifestyle change. Confidence in discussing alcohol, weight management, nutrition, and physical activity was consistently high, reinforcing evidence from the literature review that practitioner-led preventive conversations are a core strength of the programme and a mechanism for empowering individuals to improve their health.

Practitioners also reported that referral pathways into local support services were generally clear and easy to use. However, because this evaluation did not link provider-level experiences with actual referral activity or behavioural outcomes, it is not possible to draw firm conclusions about the effectiveness of behaviour change management. Nevertheless, provider confidence in signposting and awareness of available local services indicates that NHS Health Checks continue to function as an important entry point into wider health improvement pathways.

The findings align well with the three shifts in the NHS 10 Year Health Plan for England, shifting from treatment to prevention, integrating care pathways, and adopting proactive population health management. NHS Health Checks contribute to these shifts by identifying high-risk individuals early, linking screening to GP-based follow-up (though with variation between GP-led and OYES-led pathways), and supporting targeted prevention among groups with multiple risk factors.

Despite these strengths, providers identified several sustainability challenges. Time pressures, inconsistent appointment length, and the need for refresher training were commonly cited barriers to delivering high-quality checks. These concerns mirror national evidence that variation in training, practitioner confidence, and workload can limit

programme impact. Providers also requested clearer guidance to support the interpretation of borderline results—such as borderline HbA1c or isolated raised blood pressure—highlighting a need for more standardised clinical decision support.

Digital infrastructure emerged as both an enabler and a constraint. Tools such as GPPASS templates, SmartGP, and structured recording fields support efficient data entry and clinical workflow. Digital interoperability, clear protocols, and reliable follow-up systems are essential for ensuring that risk identification leads to timely clinical action.

From a system-wide perspective, NHS Health Checks complement local and national initiatives in cardiovascular disease prevention, diabetes management, alcohol harm reduction, and population health improvement. The evaluation shows that a proportion of individuals identified with elevated risk do go on to receive clinical diagnoses and treatment, for example, nearly two-thirds of those with very high HbA1c went on to be diagnosed with diabetes. While national benchmarks for expected treatment uptake remain limited, these findings demonstrate that NHS Health Checks help connect individuals to preventive interventions.

Overall, provider experiences and wider system factors strongly influence the effectiveness and long-term sustainability of the NHS Health Check programme. Confidence in lifestyle discussions, clear referral pathways, and effective digital tools support delivery, while time constraints, training needs, and inconsistent follow-up processes present risks to sustainability. Addressing these challenges will be essential to ensuring the programme continues to deliver high-quality, equitable, and preventive care across East Sussex.

Discussion Conclusions

Across all elements of the evaluation, the NHS Health Check programme in East Sussex demonstrates substantial value as a preventive health intervention, while also highlighting areas requiring further development to maximise its impact. The programme reliably identifies behavioural and clinical cardiovascular risk factors and supports early detection of conditions such as high blood pressure, diabetes, and hypercholesterolaemia. However, the degree to which identified risks translate into follow-up, diagnosis, and treatment varies across delivery models, with hypertension, CKD, and QRISK management representing key opportunities for improving consistency and clinical action.

Differences between GP-led and OYES-led delivery show that the two models serve complementary functions. GP-led checks typically support stronger continuity of care and more reliable progression into clinical management, while OYES-led checks expand access to populations who face barriers to engaging with GP practices. Strengthening the interface between delivery models, particularly around digital interoperability, information transfer, and responsibility for follow-up, will be essential in ensuring that identified risks lead to equitable clinical outcomes.

Economic analysis strongly supports the cost-effectiveness of the programme. The cost per QALY is far below NICE thresholds, and projected long-term savings reinforce the programme's value for money. Increasing uptake, particularly among high-risk and underserved groups, would further enhance both health and economic outcomes.

Provider experiences confirm that the programme is valued and that the workforce is confident in delivering preventive conversations, but survey responses also highlight time pressures, training needs, and inconsistency in follow-up processes. These provider-level insights, combined with system-wide findings, show that sustainability depends on continued investment in training, digital infrastructure, consistent clinical pathways, and aligned preventive policy.

In summary, NHS Health Checks in East Sussex deliver meaningful clinical, behavioural, and economic benefits. Addressing the identified system, workforce, and pathway challenges will be crucial to strengthening delivery, maximising preventive impact, and ensuring that the programme remains aligned with both local needs and national public health priorities.

10. Considerations and Limitations

The evaluation of the NHS Health Check programme in East Sussex offers valuable insight into delivery, outcomes, equity, and system functioning. However, it is important to distinguish between limitations of the evaluation itself which affect interpretation of findings and broader considerations that influence the success and sustainability of the programme. Both are outlined below.

A. Limitations of the Evaluation

Variability in Clinical Follow-Up and Treatment Recording

Differences in follow-up processes between GP-led and OYES-led NHS Health Checks introduce inconsistencies in the completeness of recorded outcomes. Not all abnormal results are coded or followed up in the same way, limiting the accuracy of downstream outcome data and introducing potential underestimation of treatment initiation.

Longitudinal Tracking Constraints

Although East Sussex has strong data capabilities, it remains challenging to track individuals across different parts of the system (e.g., from NHS Health Check to referral to behavioural support to clinical outcomes).

Generalisability

Findings are specific to East Sussex's delivery models, demographics, and commissioning arrangements. Local approaches, such as tiered tariffs, mixed delivery models, and community outreach, may not be directly applicable to other areas.

Economic Modelling Boundaries

Economic analysis relied on the NHS Health Check Ready Reckoner, which uses 2014 national assumptions that do not fully reflect local costs, care pathways, or demographic profiles. OYES-delivered checks were not included due to data incompatibility. As a result, economic conclusions may underestimate local value.

Selection Bias

NHS Health Check attendees may systematically differ from non-attendees in motivation, health status, or health behaviours. This limits causal inference about programme effects and may skew estimates of risk prevalence and treatment uptake.

Survey Limitations

The provider survey had a limited response rate, with no responses from pharmacies. Limited control over distribution and follow-up reduces the representativeness of provider feedback and may bias qualitative insights.

Contextual Confounders

External factors, such as staffing pressures, fluctuating GP capacity, operational demands, or wider healthcare policy changes, may influence uptake, engagement, and outcomes. These cannot be fully separated from the programme's direct impact.

B. Considerations for Programme Success

Equity in Access and Engagement

Despite targeted invitation strategies, persistent barriers, such as transport challenges, limited appointment availability, stigma, mistrust, and competing life pressures, continue to affect engagement among deprived and minority populations. Improving accessibility, trust, and cultural sensitivity remains critical for reducing inequalities. This also highlights the importance of adopting a behaviourally informed approach that recognises how motivations, perceived relevance, opportunity, and practical barriers influence NHS Health Check uptake across different population groups.

Inconsistent Follow-Up Pathways

Variation in how abnormal results are actioned, particularly between GP-delivered and OYES-delivered checks, affects consistency in clinical management. Strengthening interoperability, clarifying follow-up responsibilities, and standardising communication could enhance care continuity. In particular, ensuring that clinical follow-up requirements arising from third-party delivered NHS Health Checks are clearly flagged to general practice would support timely review, diagnosis, and treatment.

Workforce Capacity and Training

Practitioners reported time constraints, inconsistent appointment duration, and a need for refresher training and clearer guidance (especially for borderline results). These factors influence delivery quality and sustainability.

Digital Infrastructure and Interoperability

Tools such as SystmOne templates and SmartGP support delivery but require consistent use and reliable information flow. Variability in how practices review, and action incoming results affects the programme's effectiveness.

Broader Social and Health System Benefits

While economic modelling captures QALYs and direct NHS savings, wider benefits, such as improved wellbeing, reduced social care demand, and productivity gains, are not currently measured. Considering these broader impacts would provide a more complete picture of programme value.

Divergence Between Local and National Metrics

Local delivery arrangements (e.g., enhanced payments for priority groups, use of POCT) differ from national models. This divergence reinforces the need to contextualise national

benchmarks and avoid over-reliance on national economic metrics for local commissioning decisions.

Recommendations

Section	Finding	Responsible Authority	Recommendation
3	Data across third-party NHS Health Checks was not separable i.e. OYES and Pharmacy delivered.	Public Health One You East Sussex	Should there be multiple providers of third-party health checks, a mechanism to enable analysis of NHS Health Checks delivered by different third-party providers should be explored.
3.2.4	No cross-tabulation of characteristics (e.g., sex & age) was performed in the Health Equity Audit.	Public Health	Future analyses could explore interactions between characteristics to provide a more nuanced understanding of programme uptake and outcomes.
4.5	Lack of research on the effectiveness of different invitation methods for various ethnicities and genders. Current methods appear less effective among targeted cohorts.	Public Health GP Practices One You East Sussex	Explore opportunities to pilot different invitation methods (e.g., telephone calls), as well as messaging informed by behavioural insights/national segmentation tools.
6	This evaluation did not track behavioural outcomes (e.g., referrals to OYES and intervention outcomes).	Public Health One You East Sussex	Track behavioural risk factor outcomes for individuals referred into OYES following an OYES-delivered NHS Health Checks. Explore feasibility of tracking behavioural risk factor outcomes for individuals referred to

			OYES following a GP-delivered NHS Health Check.
6	Follow-up of clinical risk factors identified by OYES varied across risk types and delivery models. Unknown whether variation reflects GP follow-up or OYES emphasis.	Public Health GP Practices One You East Sussex	Explore how Public Health might support GP Practices to consistently follow up clinical risks identified by OYES.
6.1	Percentage of BMI, smoking and alcohol data recorded in GP-delivered NHS Health Checks was low. Possible under-reporting or template issues.	Public Health	Investigate whether low recording levels for smoking and alcohol are representative or reflect under-reporting or technical issues in data transfer.
6.1	Variation in recording may reflect inconsistent use of templates or incomplete data fields in GPPASS.	Public Health GP Practices	Provide refresher guidance on correct template use and core mandatory fields to improve completeness of behavioural data.
6.1	Data transfer and coding inconsistencies between OYES and GP practices led to incomplete or unusable behavioural risk factor data, limiting the ability to compare outcomes across delivery models and affecting the reliability of recorded follow-up data.	Public Health GP Practices One You East Sussex	Improve the standardisation and interoperability of behavioural risk factor data captured through OYES-delivered NHS Health Checks to ensure key fields such as BMI and AUDIT-C are consistently transferred into GP clinical systems in a format that is extractable for monitoring and evaluation purposes.

6.2.2	Individuals seen by OYES with high BP were more likely to get follow-up but less likely to be prescribed antihypertensives.	Public Health	Explore reasons for higher follow-up but lower prescription rates and ensure opportunities for treatment are not being missed.
6.2.4	Three-quarters of individuals with QRISK 10-20 had no recorded statin decision.	Public Health Integrated Care Board GP Practices	Investigate consistency of statin offers and decision documentation across practices.
6.2.7	CKD prevalence significantly lower than expected despite high rates of creatinine testing. Possible missed diagnoses and coding issues.	Public Health Integrated Care Board	Review coding and recording processes for CKD and explore mechanisms for ensuring appropriate follow-up of abnormal kidney function results.
6.2.7	Variation in CKD detection may reflect inconsistent interpretation of eGFR results.	Public Health GP Practices	Provide targeted training or guidance on CKD staging, diagnostic thresholds, and coding.
7.1	Ready Reckoner requires updating with new figures & local data.	Department of Health & Social Care	Update or create a new ready reckoner that is adaptable to local data and modern costings.
7.5	Smoking and obesity follow a social gradient; overweight and inactivity are widespread across all groups.	Public Health Integrated Care Board	Embed universal prevention messages across GP practices, pharmacies, workplaces, and communities. Tailor approaches by life stage and target males who are overweight and females

			living with obesity with appropriate interventions.
7.6.2	Individuals who had an OYES NHS Health Check with QRISK ≥ 20 were significantly less likely to be prescribed a statin.	Public Health Integrated Care Board	Investigate statin prescribing differences across delivery models to ensure no opportunities for treatment are missed.
7.6.3	Statin uptake in QRISK ≥ 20 increases with age; uptake low in IMD1 & IMD10.	GP Practices	Increase uptake among younger high-risk adults. Tailor strategies for IMD1 (access & support) and IMD10 (shared decision-making & risk framing).
7.6.3	Individuals with high cholesterol identified by OYES delivered NHS Health Checks are more likely to decline statins.	Public Health	Investigate differences across delivery models for high cholesterol to ensure treatment opportunities are not missed.
8.1	OYES was not included in economic modelling due to data incompatibility.	Public Health One You East Sussex	Develop cost-capture processes for OYES (e.g., activity-based costing) to allow future full economic modelling.
8.3	Economic evaluation indicates a £238k return on investment by year 20.	Public Health Department of Health & Social Care	Evidence shows that investment in NHS Health Checks generates healthcare savings and should inform future public health spending decisions.
9.3	Gaps in refresher NHS Health Check training attendance.	One You East Sussex Public Health	Increase promotion and strengthen PHLSCA to ensure practitioners remain up to date.
9.3	Review existing OYES reference materials and,	One You East Sussex	GP practices to collaborate with OYES to review

	where appropriate, develop a consolidated NHS Health Check reference pack or ESCC-hosted webpage that brings together key guidance, pathways, and resources in one place.		training offers and set up biannual community of practice sessions led by OYES & Public Health.
9.3	Lower confidence in behaviour change conversations regarding smoking and weight loss.	One You East Sussex	Strengthen training on smoking and weight loss conversations within the NHS Health Check training offer.
9.3	Low GP participation in provider survey.	Public Health	Improve survey promotion and consider alternative communication channels for future surveys (or different engagement mechanisms).
9.3	Patients often request additional tests beyond NHS Health Check scope.	Public Health Integrated Care Board	Conduct communications to clarify the purpose and remit of the NHS Health Check.
11	Evaluation did not analyse cost-effectiveness between GP & OYES delivery.	Public Health One You East Sussex	Establish cost per NHS Health Check delivered by OYES.

Bibliography

- 1) One You East Sussex. (n.d.). Stop smoking. [online] Available at: <https://oneyouestsussex.org.uk/services/stop-smoking/>
- 2) One You East Sussex. (n.d.). Lose weight. [online] Available at: <https://oneyouestsussex.org.uk/services/lose-weight/>
- 3) One You East Sussex. (n.d.). Drink less. [online] Available at: <https://oneyouestsussex.org.uk/services/drink-less/>
- 4) Change Grow Live. (n.d.). We can help you change your life. [online] Available at: <https://www.changeprolive.org/>
- 5) One You East Sussex. (n.d.). Health & wellbeing coaching. [online] Available at: <https://oneyouestsussex.org.uk/services/health-and-wellbeing-coaching/>
- 6) NHS Sussex. (n.d.). Preventing Diabetes: Tackling type 2 with life-saving prevention programme. [online] Available at: <https://www.sussex.ics.nhs.uk/news/nhs-sussex-tackles-rising-type-2-diabetes>
- 7) East Sussex County Council. (n.d.). Public Health Local Service Agreements (PHLSAs) for GP practices. [online] Available at: <https://www.eastsussex.gov.uk>
- 8) Artac, M., Dalton, A.R.H., Majeed, A., Car, J. and Millett, C. (2013). Effectiveness of a national cardiovascular disease risk assessment program (NHS Health Check): Results after one year. *Preventive Medicine*, 57(2), pp.129-134. doi: <https://doi.org/10.1016/j.ypmed.2013.05.002>.
- 9) McCracken, C., Raisi-Estabragh, Z., Szabó, L., Robson, J., Raman, B. and Topiwala, A. (2024). NHS Health Check Attendance Is Associated with Reduced Multiorgan Disease risk: a Matched Cohort Study in the UK Biobank. *BMC Medicine*, 22(1). doi: <https://doi.org/10.1186/s12916-023-03187-w>.
- 10) Marmot, M. and Bell, R. (2012). Fair Society, Healthy Lives. *Public Health*, 126(1), pp.S4-S10. doi: <https://doi.org/10.1016/j.puhe.2012.05.014>.
- 11) Ministry of Housing, Communities and Local Government. (2019). English Indices of Deprivation 2019 FAQs. [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/853811/IoD2019_FAQ.pdf
- 12) Mistry, H. et al. (2022). Determining optimal strategies for primary prevention of cardiovascular disease: systematic review of cost-effectiveness analyses in the United Kingdom. *Health Technology Assessment*, pp.1-50. doi: <https://doi.org/10.3310/qovk6659>.
- 13) Debiec, R. et al. (2023). Evaluating the Clinical Effectiveness of the NHS Health Check programme: a Prospective Analysis in the Genetics and Vascular Health Check (GENVASC) Study. *BMJ Open*, 13(5), e068025. doi: <https://doi.org/10.1136/bmjopen-2022-068025>.
- 14) Duddy, C. et al. (2023). What Happens after an NHS Health Check? A Survey and Realist Review. *Health and Social Care Delivery Research*, 11(12), pp.1-133. doi: <https://doi.org/10.3310/RGTH4127>.
- 15) Gadsby, E.W. et al. (2023). The NHS Health Check programme: A Survey of Programme Delivery in England before and after the Covid-19 Pandemic Response. *NIHR Open Research*, 3, p.32. doi: <https://doi.org/10.3310/nihropenres.13436.2>.

- 16) Hyseni, L. et al. (2020). Engaging with Stakeholders to Inform the Development of a decision-support Tool for the NHS Health Check programme: Qualitative Study. *BMC Health Services Research*, 20(1). doi: <https://doi.org/10.1186/s12913-020-05268-5>.
- 17) Gidlow, C. et al. (2014). Method of Invitation and Geographical Proximity as Predictors of NHS Health Check Uptake. *Journal of Public Health*, 37(2), pp.195-201. doi: <https://doi.org/10.1093/pubmed/fdu092>.
- 18) Shaw, P. et al. (2024). An Integrated Primary Care Service to Reduce Cardiovascular Disease Risk in People with Severe Mental illness: Primrose-A. *BMC Health Services Research*, 24(1). doi: <https://doi.org/10.1186/s12913-024-10628-6>.
- 19) Xue, Y. et al. (2023). A Scoping Review of Cardiovascular Risk Factor Screening Rates in General or Family Practice Attendees Living with Severe Mental ill-health. *Schizophrenia Research*, 261, pp.47-59. doi: <https://doi.org/10.1016/j.schres.2023.09.007>.
- 20) Hassan, S. et al. (2020). A Qualitative Study Exploring the Barriers and Facilitators of Implementing a Cardiovascular Disease Risk Reducing Intervention for People with Severe Mental Illness. *BMC Health Services Research*, 20(1). doi: <https://doi.org/10.1186/s12913-020-05643-2>.
- 21) Garriga, C. et al. (2020). NHS Health Checks for People with Mental ill-health 2013-2017: an Observational Study. *Epidemiology and Psychiatric Sciences*, 29. doi: <https://doi.org/10.1017/s2045796020001006>.
- 22) Martin, A. et al. (2018). Delivery and Impact of the NHS Health Check in the First 8 Years: a Systematic Review. *British Journal of General Practice*, 68(672), pp.e449-e459. doi: <https://doi.org/10.3399/bjgp18x697649>.
- 23) Patel, R. et al. (2020). Evaluation of the Uptake and Delivery of the NHS Health Check Programme in England. *BMJ Open*, 10(11), e042963. doi: <https://doi.org/10.1136/bmjopen-2020-042963>.
- 24) Coghill, N. et al. (2018). NHS Health Checks: a cross-Sectional Observational Study on Equity of Uptake and Outcomes. *BMC Health Services Research*, 18(1). doi: <https://doi.org/10.1186/s12913-018-3027-8>.
- 25) Molokhia, M. et al. (2022). What Factors Influence Differential Uptake of NHS Health Checks among Women in Ethnically Diverse South London? *eClinicalMedicine*, 49, p.101471. doi: <https://doi.org/10.1016/j.eclim.2022.101471>.
- 26) Chattopadhyay, K., Biswas, M. and Moore, R. (2019). NHS Health Check and Healthy Lifestyle in Leicester, England. *Perspectives in Public Health*. doi: <https://doi.org/10.1177/1757913919834584>.
- 27) East Sussex Joint Strategic Needs Assessment. (2019). *Cardiovascular Disease in East Sussex*. [online] Available at: <https://www.eastsussexjsna.org.uk/media/fmhbbt0o/jsnaa-briefing-cardiovascular-disease-in-east-sussex-may-2019.pdf>
- 28) Lang, S.-J. et al. (2016). Impact of Socioeconomic Deprivation on Screening for Cardiovascular Disease Risk. *BMJ Open*, 6(3), e009984. doi: <https://doi.org/10.1136/bmjopen-2015-009984>.
- 29) Dryden, R. et al. (2012). Who Does and Does Not Attend General Health Checks? *BMC Public Health*, 12(1). doi: <https://doi.org/10.1186/1471-2458-12-723>.
- 30) Ogunlaiyi, F. et al. (2022). Equitability of Invitation, Uptake and Coverage for NHS Health Check. *Journal of Public Health*, 45(2). doi: <https://doi.org/10.1093/pubmed/fdac064>.

- 31) Gold, N. et al. (2021). Increasing Uptake of NHS Health Checks: a Randomised Controlled Trial. *British Journal of General Practice*, 71(710), pp.e693-e700. doi: <https://doi.org/10.3399/BJGP.2020.0887>.
- 32) Tanner, L. et al. (2022). NHS Health Check Programme: a Rapid Review Update. *BMJ Open*, 12(2), e052832. doi: <https://doi.org/10.1136/bmjopen-2021-052832>.
- 33) Nahar, P. et al. (2020). Community Engagement Interventions for Cardiovascular Disease Prevention. *Global Health Research and Policy*, 5(12), p.12. doi: <https://doi.org/10.1186/s41256-020-0131-1>.
- 34) Junghans, C. et al. (2023). Learning from the Brazilian Community Health Worker Model. *BMC Health Services Research*, 23(1). doi: <https://doi.org/10.1186/s12913-023-10084-8>.
- 35) Woringer, M. et al. (2017). Evaluation of Community Provision of a Preventive Cardiovascular Programme. *BMC Health Services Research*, 17(1). doi: <https://doi.org/10.1186/s12913-017-2346-5>.
- 36) Brangan, E. et al. (2019). Patient Experiences of Telephone Outreach for NHS Health Checks. *Health Expectations*, 22(3), pp.364-372. doi: <https://doi.org/10.1111/hex.12856>.
- 37) Sallis, A. et al. (2019). Increasing Uptake of NHS Health Checks: Enhanced Invitation Letters Trial. *Journal of Public Health*. doi: <https://doi.org/10.1093/pubmed/fdz134>.
- 38) Roberts, D.J. and de Souza, V.C. (2016). Venue-Based Outreach for Community NHS Health Checks. *Public Health*, 137, pp.176-181. doi: <https://doi.org/10.1016/j.puhe.2016.03.004>.
- 39) Bunten, A. et al. (2020). Factors Influencing NHS Health Check Uptake: Systematic Review. *BMC Public Health*, 20(1). doi: <https://doi.org/10.1186/s12889-019-7889-4>.
- 40) NICE. Glossary [Internet]. London: National Institute for Health and Care Excellence. Available from: <https://www.nice.org.uk/Glossary?letter=Q>
- 41) NICE. Should NICE's cost-effectiveness thresholds change? [Internet]. London: National Institute for Health and Care Excellence; 2024 Dec 13. Available from: <https://www.nice.org.uk/news/blogs/should-nice-s-cost-effectiveness-thresholds-change>
- 42) National Institute for Health and Care Excellence (NICE). Guide to the methods of technology appraisal 2013 (PMG9). NICE; 2013 Apr 4. Available from: <https://www.nice.org.uk/process/pmg9/resources/guide-to-the-methods-of-technology-appraisal-2013-pdf-2007975843781>
- 43) Rose G. Strategy of preventive medicine. 2nd ed. Oxford: Oxford University Press; 2001 [10.1093/acprof:oso/9780192630971.001.0001](https://doi.org/10.1093/acprof:oso/9780192630971.001.0001)
- 44) Bronfenbrenner U. The ecology of human development: Experiments by nature and design. Cambridge, MA: Harvard University Press; 1979 [The Ecology of Human Development: Experiments by Nature and Design](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1360333/)
- 45) McLeroy KR, Bibeau D, Steckler A, Glanz K. An ecological perspective on health promotion programs. *Health Educ Q*. 1988 [An ecological perspective on health promotion programs - PubMed](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1360333/)
- 46) Asaria M, Griffin S, Cookson R. Distributional cost-effectiveness analysis: a tutorial. *Med Decis Making*. 2016 [Distributional Cost-Effectiveness Analysis: A Tutorial - PubMed](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1360333/)
- 47) Claxton K, Martin S, Soares M, Rice N, Spackman E, Hinde S, et al. Methods for the estimation of the National Institute for Health and Care Excellence cost-effectiveness threshold. *Health*

Technol Assess. 2015 [Methods for the estimation of the National Institute for Health and Care Excellence cost-effectiveness threshold - PubMed](#)

- 48) Graham H. Tackling inequalities in health in England: remedying health disadvantage, narrowing health gaps or reducing health gradients? J Soc Policy. 2004 [Tackling Inequalities in Health in England: Remedyng Health Disadvantages, Narrowing Health Gaps or Reducing Health Gradients? | Journal of Social Policy | Cambridge Core](#)
- 49) Powis S. Kidney Research UK: Economics of Kidney Disease: Summary Report. https://www.kidneyresearchuk.org/wp-content/uploads/2023/06/Economics-of-Kidney-Disease-summary-report_accessible.pdf
- 50) Stewart S, Kalra PA, Blakeman T, Kontopantelis E, Cranmer-Gordon H, Sinha S. Chronic kidney disease: detect, diagnose, disclose—a UK primary care perspective of barriers and enablers to effective kidney care. BMC Med. 2024 <https://doi.org/10.1186/s12916-024-03555-0>
- 51) Borian G, et al. CHA₂DS₂-VASc has the important advantage of identifying patients who are truly at low risk and therefore do not require OACs. Europace, 2024, Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC11574616/>
- 52) NICE. Chronic kidney disease in adults: assessment and management. Clinical guideline [CG182]. London: National Institute for Health and Care Excellence; 2014 [updated 2021]. Available from: <https://www.nice.org.uk/guidance/cg182>
- 53) Holman, N. NHS Health Checks RR, 2014, Office for Health Improvement and Disparities

Appendix A: PHLSA Tariffs

2021/25 Tariffs

Activity	Standard Tariff	Enhanced Tariff
NHS Health Check invitation	£0.50	N/A
NHS Health Check Reminder Invitation Two reminder invitations sent a minimum of 4 weeks apart within a single financial year. All reminder invitations need to be sent within the same financial year as the first invitation.	£0.50	N/A
NHS Health Check using Pathology test	£22.00	£29.40
NHS Health Check using Point of Care Testing (cholesterol and HbA1c tests)	£28.60	£36.00
NHS Health Check using Point of Care Testing (cholesterol test only)	£26.30	£33.70
Additional quarterly payment for Practices using POCT: Monthly Internal Quality Control (IQC) tests*	£874.00 per annum	N/A
Additional £2 payment per patient referred into One You East Sussex for integrated lifestyle support.	£2.00 per patient referred	N/A

Table 15: PHLSA 2021/25 Tariffs

2025/26 Tariffs

Activity	Standard Tariff	Enhanced Tariff
NHS Health Check invitation	£0.50	N/A
NHS Health Check using Pathology test	£22.00	£25.00
NHS Health Check using Point of Care Testing (cholesterol and HbA1c tests)	£28.60	£31.60
NHS Health Check using Point of Care Testing (cholesterol test only)	£23.65	£26.65
Additional quarterly payment for Practices using POCT: Monthly Internal Quality Control (IQC) tests*	£745.36 per annum	N/A

Table 16: PHL SA 2025/26 Tariffs

*Includes cost of four lipid and HbA1c disks/panel per IQC test, 25 minutes staff time, and liquid reagent.

Appendix B: Clinical Diagnosis Rates

10.1.1 NDH, Hypertension, Diabetes, AF, FH and CKD

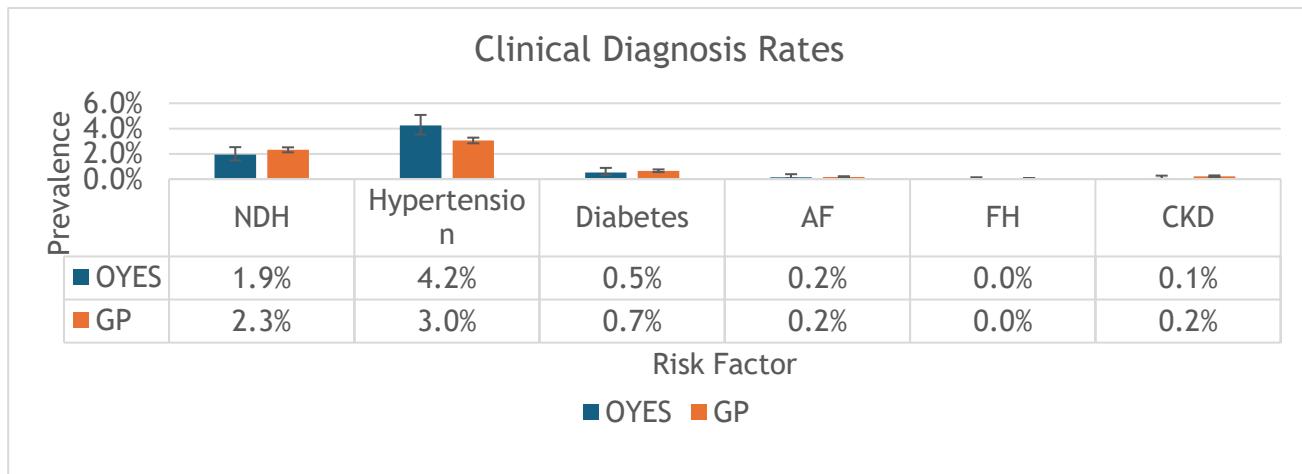


Figure 69: Clinical Diagnosis Rates