Public Health England

Protecting and improving the nation's health

NHS Health Check Programme: Health Equity Audit Guidance

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Section 1: Introduction

Rationale and structure of guidance: This guidance was produced in response to a call from local authorities. It provides information on why and how to complete health equity audits (HEAs) on the NHS Health Check programme.

- Section 1 sets out why considerations of equity and health inequalities are essential to effective delivery of the NHS Health Check programme. It describes how an HEA can provide robust evidence to support decisions about delivery and resource allocation. It then sets out the rationale for taking a pathway approach to the HEA cycle (see fig 1)
- Section 2 supports scoping the design of an HEA
- Section 3 describes why it is important to understand and profile the eligible population, against which audit results can be compared, the challenges of doing so and data sources that can help
- Section 4 describes in detail the pathway approach to undertaking HEAs, combining guidance with sets of questions for consideration at each stage of the pathway
- Section 5 describes useful issues to consider when undertaking equity analyses, drawn from local authorities' experiences of undertaking NHS Health Check HEAs
- Section 6 sets out the importance of developing recommendations for action to address inequity. It is supported by an extensive appendix, listing suggestions and resources to support the development of recommendations
- Section 7 describes how, as a systematic and cyclical process, the final stage required to complete the audit is to review and evaluate whether any actions that resulted from the HEA have led to changes in inequity

The guidance has been developed collaboratively with a range of individuals and organisations. It is primarily intended for use by local authority (LA) NHS Health Check leads, commissioners and analysts, who will already have a good understanding of the programme. It may also be of interest to providers of the NHS Health Check and those interested more generally in ensuring equity of access and outcomes of local services, such as GP practices, Clinical Commissioning Groups (CCGs), Healthwatch, community groups and third sector organisations.

Introduction to the NHS Health Checks programme: The NHS Health Check programme aims to prevent heart disease, stroke, diabetes and kidney disease and raise awareness of dementia, both across the population and within high risk and vulnerable groups (see figure 2: NHS Health Programme Check flow, which describes the pathway).

The NHS Health Check programme offers a real opportunity to help people to live longer, healthier lives. It aims to improve health and wellbeing of adults aged 40 to 74 years through the promotion of earlier awareness, assessment, and management of the

major risk factors and conditions driving premature death, disability and health inequalities in England. The programme will achieve this by:

- promoting and improving the early identification and management of the individual behavioural and physiological risk factors for vascular disease and the other conditions associated with these risk factors
- supporting individuals to effectively manage and reduce behavioural risks and associated conditions through information, behavioural and evidence based clinical interventions
- helping to reduce inequalities in the distribution and burden of behavioural risks, related conditions and multiple morbidities
- promoting and supporting appropriate operational research and evaluation to optimise programme delivery and impact, nationally and locally

When the programme became the responsibility of Local Authorities in April 2013, the service became a statutory function. The statutory delivery requirements are set out in the Local Authorities Regulations 2013 and require local authorities to make arrangements:

- for each eligible person aged 40-74 to be offered an NHS Health Check once in every five years and for each person to be recalled every five years if they remain eligible
- for the risk assessment to include specific tests and measurements
- to ensure the person having their NHS Health Check is told their cardiovascular risk score, and other results are communicated to them
- for specific information and data to be recorded and, where the risk assessment is conducted outside the person's GP practice, information to be forwarded to the person's GP
- to continuously improve the percentage of eligible individuals having an NHS Health Check

A key objective of the programme is to contribute to narrowing health inequalities. Conducting a health equity audit is a strategic way to assess whether and how this objective is being met, to identify areas for improvement, prioritise action and make decisions about resource allocation.

What is the difference between health inequalities and health equity?

Health inequalities describe the unjust differences in health, illness and life expectancy experienced by people from different groups in society. Health inequities are avoidable inequalities in health between groups of people within countries and between countries, which arise from inequalities within and between societies. Social and economic conditions and their effects on people's lives determine their risk of illness and the actions taken to prevent them becoming ill or to treat illness when it occurs[i]. Health equity is concerned with how fairly resources, opportunities and access are distributed according to the needs of different groups.

What is a health equity audit (HEA)?

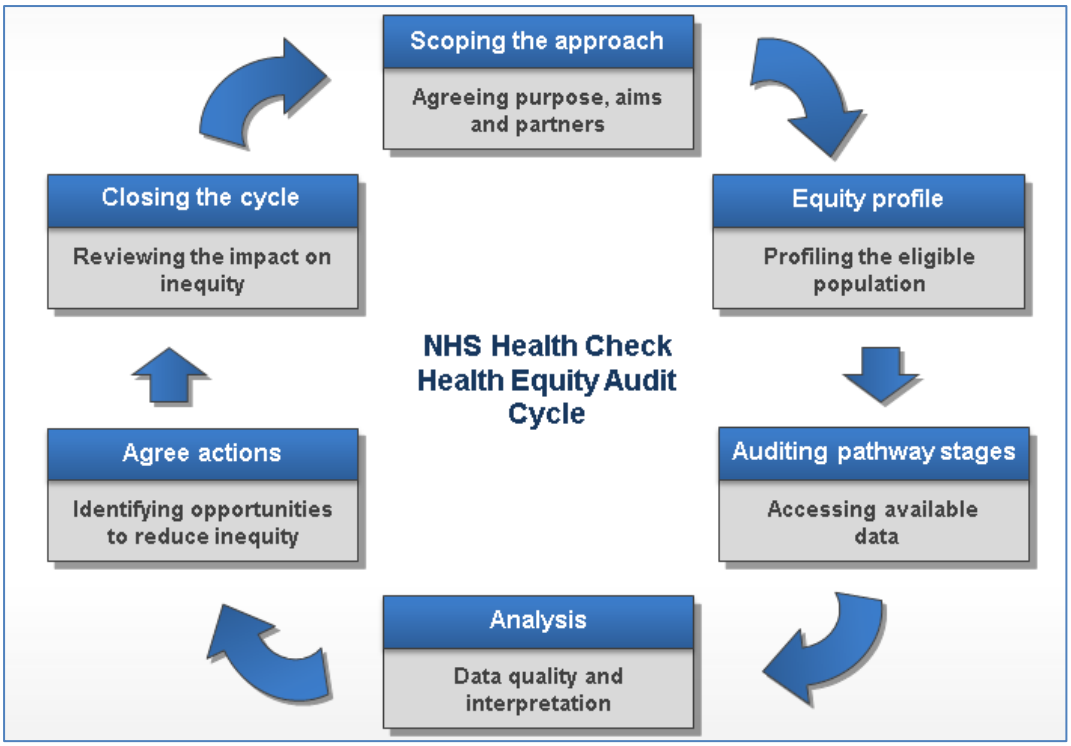
An HEA is a review process which examines how health determinants, access to health services and related outcomes are distributed in relation to the health needs of different groups and areas. It is a cyclical process, undertaken once a programme or policy has already been implemented in order to assess whether resources, opportunities and access are being fairly distributed according to need, by the principles of proportionate universalism[ii]. The flow diagram in figure 1 sets out the HEA cycle. For further information, see the Department of Health Equity Audit - guide for the NHS[iii] or the European Portal for Action on Health Inequalities[iv].

Why use health equity audits?

HEAs provide local evidence which can be used to:

- inform action to improve equity of access and outcomes from the NHS Health Check programme
- inform resource allocation, so it is proportionate to actual needs and level of disadvantage of different population segments or geographic locations
- demonstrate compliance with the requirement of the 2010 Equality Act

Figure 1: NHS Health Check Health Equity Audit Cycle



The Equality Act 2010[v] requires specific consideration be given to equitable access and outcomes for those with protected characteristics:

- age
- disability
- gender reassignment
- marriage and civil partnership
- pregnancy and maternity

- race
- religion and belief
- sex
- sexual orientation

In addition to the Equality Act, legislation in the 2012 Health and Social Care Act places a duty on the Secretary of State, NHS England and Clinical Commissioning Groups to give regard to the need to reduce inequalities[vi]. As a result, a condition of the public health grant is that local authorities have regard to the need to reduce inequalities between the people in its area[vii]. This is in recognition that some population groups need more help and resource to achieve the same health outcomes as their peers. So HEAs are not just about identifying inequities but taking action to address them, then reviewing and assessing the impact of those actions. This is what differentiates a health equity audit from a health equity assessment, which is conducted at the outset of planning for a programme or policy, to identify need and potential impact**.**

What are the key steps when doing a NHS Health Check HEA?

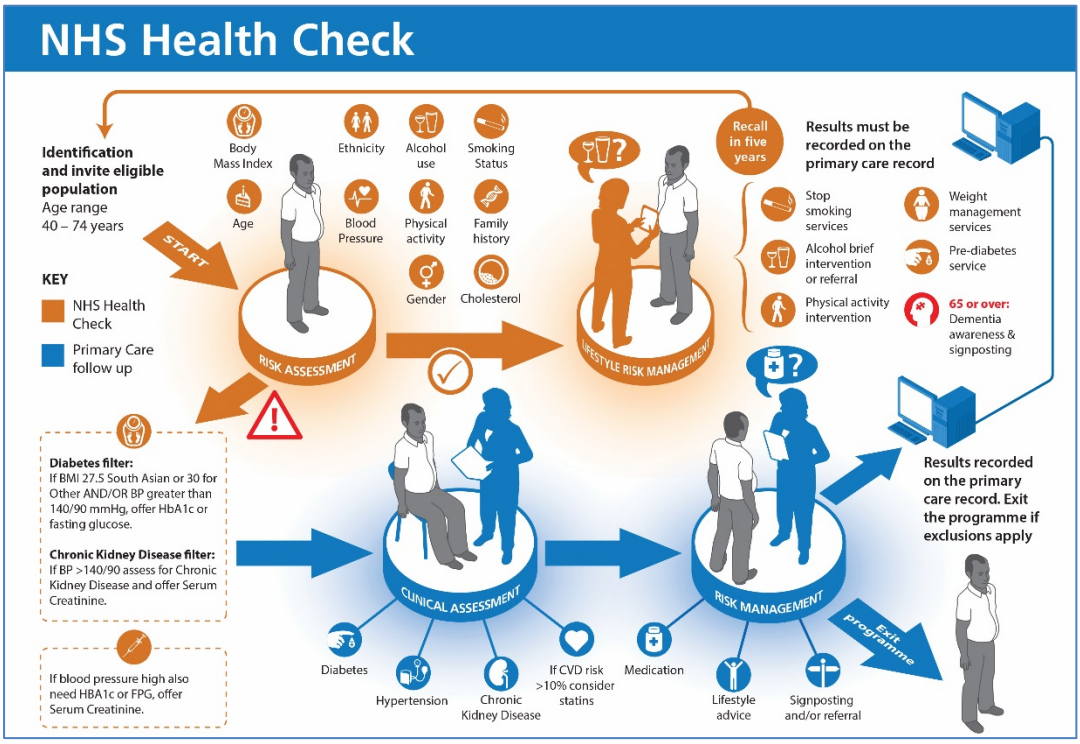
When completing an HEA on the NHS Health Check programme a six stage cyclical approach should be adopted, see figure 1. HEAs are not simply about equality of access but should consider inequities arising across the whole NHS Health Check pathway (figure 2). Inequities could arise at a number of points along the NHS Health Check pathway, including:

- identification of eligible population
- invitation to attend checks
- access to the checks
- provision of checks
- referral resulting from checks
- outcomes from checks and referrals

An HEA can be carried out on the whole programme, focused on a specific point of the pathway or on certain providers. The focus and scope of any HEA will need to be determined locally, based on local priorities and needs. See section 2 for further information on scoping approaches. A number of examples of HEAs are available on the NHS Health Check website.

In working through the scoping to analysis stages an HEA should consider groups with protected characteristics and other groups that evidence shows may carry greater burdens of disease, such as unpaid carers, long-term unemployed and transient or changing populations. For further information about potential groups to include, see the guidance on CVD profiling in section 3.

Figure 2: The NHS Health Check Programme flow diagram



Section 2: Scoping the approach

The aim of undertaking an HEA is to understand who is accessing the NHS Health Check programme and what the health outcomes are for different groups. The breadth, depth and focus of any HEA needs to be scoped and defined according to local context. Before beginning, objectives need to be clarified and consideration given to what needs to be achieved. At this stage, potential practical limitations should not limit scoping, but should rather be recognised later as limitations where identified during the audit.

a. What needs to be achieved? Before beginning, consider why an HEA is being undertaken and what needs to be achieved. For example, results could be used to:

- increase overall take up and/or devise an improvement plan to increase take up from specific groups
- evidence why investment should be continued
- develop a business case for additional investment
- inform decisions about allocation of resources proportionate to need
- inform decisions on the data providers need to report to commissioners
- review effectiveness of a specific part of the programme
- compare performance of different NHS Health Check providers in reducing inequalities
- demonstrate how the requirements of the 2010 Equalities Act are being met

b. Who else needs to be involved? To be effective, a range of people need to be involved. Gaining ownership from the start creates an opportunity to engage stakeholders and raise the profile of the programme. It can also help ensure a range of perspectives inform the HEA design and insights gained. For example, NHS Health Check providers are key data owners and controllers, with whom there will need to be appropriate data sharing agreements. Developing strong relationships with providers from the outset will help ensure they see the benefits of the HEA process and feel part of it (information about the roles and definitions of data owners and controllers, data sharing protocols and other resources such as the privacy impact assessment screening tool, can be found in the analysis and cross-cutting sections of the appendix and on the Data & Information Governance pages of the NHS Health Check website).

High level strategic commitment is also vital to ensure support and adequate resourcing to take forward action required as a result of audits. Being able to demonstrate how the outcomes of the HEA support strategic priorities will help ensure appropriate senior buy-in, for example, by framing the HEA as something that can be used to promote improvements in health outcomes, reduce health inequalities and increase return on investment.

Local or national community groups and third sector organisations may be able to assist in scoping and designing audits. They can also play an important role in developing recommendations to address inequities identified. The recommendations: agreeing action to reduce identified inequity section of this guidance and the associated appendix provide a range of examples to consider.

Clear roles and responsibilities in undertaking audits should be identified, making use of the range of skills across local authorities, the NHS and other agencies. Getting early buy-in from CCGs and GP practices may also be important for implementing recommendations. It may also be useful to involve other local authorities who have experience of working with specific groups identified as experiencing inequity. For examples, see the cross-cutting issues section of the 'potential recommendations' in the appendix.

c. Whole or part of programme? HEAs can be undertaken across the whole NHS Health Check programme. Alternatively, depending on the purpose of the audit and availability of data, they may focus on comparing individual providers (eg comparing GP practices with each other), or comparing groups of providers (eg comparing checks done in pharmacies with those in GP practices or via outreach services). Audits may also be focused on specific geographical localities (eg CCG) or services offered to specific population subgroups.

d. Whole or part of pathway? To have the greatest impact, HEAs must consider who has been offered and who has taken up a check and what their health outcomes are. This means identifying inequities at the point of identification, invitation, take up, diagnosis of disease, referral to clinical or lifestyle interventions, take up and outcomes of referrals, as well as to who is exiting the programme. For a full understanding of the causes of inequity, it may also be useful to look at the characteristics of people that do not respond to invitations, do not attend appointments and/or opt out.

e. What data is available? The range of data available will vary considerably depending on local contracts, data sharing agreements, programme IT infrastructure and GP practice systems. Nevertheless, agreeing a scope which clearly defines all the data you are looking for is essential. It will ensure that through the HEA, you are able to evidence what data is and is not available and can be used to inform next steps. Further information about data management, information governance and IT infrastructure can be found in the cross-cutting issues section of the 'potential recommendations' in the appendix, as well as on the IG & Data pages of the NHS Health Checks website.

f. Is the time right and what should the timeframe be? Depending on the stage of implementation and local planning cycles, it may be useful to think about:

Resource allocation: to help with securing a budget to take forward recommendations about action to address inequity, it may useful to think about what point in the local business planning cycle the audit is undertaken.

The maturity of the local programme, pattern of service provision, extent of coverage and any proposed changes:

- where a relatively new programme is rapidly evolving and new providers are regularly coming on stream, audit results may quickly become outdated
- an audit undertaken before procuring an outreach service provides an essential baseline to inform the development of a service specification focused on increasing take up in priority groups
- where a programme is not yet fully rolled out, it may be useful to consider a two-stage process. The first stage would be mapping geographical location of providers against known geographical characteristics (eg deprivation). This will give an overview of inequities in current provider coverage, so helping to avoid systematic bias when undertaking analysis. The second stage would then be a more detailed analysis of variations in equity of offers and take up to and by individuals and population groups

Whether the audit is about all activity to date, all activity since transition of responsibility to LAs or other time frame: this may, for example, relate to point at which new data management systems or data sharing protocols were put in place. It is advisable to avoid cutting across a period in time when significant changes were made. For instance, if an outreach provider was commissioned or text reminder introduced mid-year, analysing data for the full year will leave an unclear picture of current inequity, as the changes may have influenced this. In this situation, it may be more useful to have cumulative rather than cross-sectional data, so changes over time can be identified. Another advantage of cumulative rather than cross-sectional data is that it ensures all invitations and completed checks are captured up to the time of analysis.

Section 3: Understanding and profiling the eligible population

Key to carrying out an HEA of the NHS Health Check programme is identifying and understanding the health needs among the local eligible population. In the case of the NHS Health Check programme, 'need' refers to those population sub-groups identified as most likely to develop cardiovascular disease (CVD)[1] risk awareness and management. This will enable a local equity profile to be established. Data collected can then be used to set a baseline and compare the provision of the NHS Health Check programme against both need and against demographic indicators.

In profiling both the eligible population and establishing a CVD profile for the wider population, a level of pragmatism will be required. While the use of local data is preferable, it may be expedient to approximate this, depending on the available sources and quality of data. This section provides guidance on why and how to undertake the profiling and suggestions made of relevant data sources.

Identifying characteristics of the NHS Health Check eligible population:

The NHS Health Check programme is available to people aged between 40 and 74 years who do not have a pre-existing CVD, as detailed in the NHS Health Check best practice guidance[viii].

The eligible population should be profiled by demographic characteristics which increase a person's risk of developing CVD, to enable analysis of inequity across these characteristics against service provision. The data points and characteristics that are focused on should be determined locally. This will be dependent on local priorities and need to be agreed with partners at the outset of conducting the HEA (see section 2 for more on scoping approaches) but as a minimum should include:

- protected characteristics
- carers
- people with mental health problems
- socioeconomic status

It is important to acknowledge that the CVD profile of the population eligible for the NHS Health Check programme may differ from that of the general adult population. Certain sub-population groups of interest may have a different age distribution to the general population. Some ethnic minority groups, for example, have a younger age distribution and may consequently represent a smaller proportion of the population aged 40 to 74 than they would the general adult population.

[1] CVD is used here as an overarching term that describes a family of diseases with a common set of risk factors that result from a stiffening of the artery walls, covering heart disease, stroke and peripheral arterial disease but also covers other conditions such as vascular dementia, CKD, cardiac arrhythmias, type 2 diabetes, sudden cardiac death and heart failure.

Wherever possible, the CVD profile of the eligible population should be used as a baseline for audit analysis, rather than the general population. The main source of data for identifying the eligible population is on GP practice information systems. This allows for stratification by age, sex, ethnicity and deprivation (by home postcode) and identifies those on high risk disease registers to be excluded from the programme. It may also allow for additional segmentation based on socioeconomic and lifestyle or behavioural risks, where this has been entered. GP data can be broken into small geographical areas, by individual GP provider, by clusters of GP providers, or by patients' home post code. If GP information is not available, it may be necessary to approximate the eligible population by looking at general population data and using other sources of data, such as the Quality and Outcomes Framework (QOF) disease registers, to estimate the number excluded, where possible taking into allowance factors such as age and gender.

Local population CVD profile: Having profiled the characteristics of the eligible population, it may be useful to compare this with a CVD profile for the wider population. For instance, this could be used in understanding gaps in recorded versus estimated CVD prevalence (undetected disease prevalence) and assessing overtime the extent to which NHS Health Check programme may be contributing to reducing this gap. At this level, evidence of need can include data on:

- **CVD mortality and morbidity**, including prevalence rates for the main CVD diagnoses of Coronary Heart Disease (CHD), diabetes, Chronic Kidney Disease (CKD) and hypertension. This will provide information about which population groups and local communities are currently most likely to be diagnosed. The National Cardiovascular Intelligence Network (NCVIN) have developed prevalence models with estimates for a range of cardiovascular diseases, at both local authority and Clinical Commissioning Group (CCG) levels, which can be found on the resource section of the NCVIN website. Local authority and CCG level disease profiles including hypertension are available on the Yorkshire and Humber PHO website
- **Distribution of sociodemographic determinants of CVD risk** such as age, gender, ethnic group and socio economic status. The NCVIN cardiovascular disease profiles cover non-behavioural risk factors such as age, gender and deprivation. Additional useful resources can be found on the fingertips National General Practice Profiles and on PHE Local Health
- **CVD behavioural risk factors**. This will include patterns of smoking, overweight and obesity, alcohol consumption, fruit and vegetable consumption and physical inactivity. Useful tools for data on this include the NHS Health Checks fingertips tool, the NCVIN cardiovascular disease profiles (diabetes, kidney disease, CHD, and stroke) and the CVD primary care intelligence packs are available on the Yorkshire and Humber PHO website here

Other resources that may be useful include Healthier Lives and the CVD prevention opportunities, which give snapshot of potential savings and costs in disease outcomes if primary care treatment of cardiovascular and related conditions were optimised. There are also additional data sources that relate to specific groups. For example the Lesbian,

Gay, Bisexual & Trans PHOF Companion document. For further information about the role third sector can play in supporting HEAs, particularly in relation to recommendations to address inequity, see the cross-cutting, invitations and take up and outcomes sections of the 'potential recommendations'.

In addition to the known determinants of CVD risk, national or local policy will determine other groups be included. This should include population subgroups known to be potentially excluded from a range of services, as shown in figure 3. The NCVIN CVD resource navigation tool provides a useful visual representation of the NCVIN resources which can be used to select appropriate tools. For further assistance with data sources please contact your PHE Centre NHS Health Check lead who will be able to put you in touch with the relevant PHE Knowledge and Intelligence Team or email: enquiries@phe.gov.uk.

Figure 3: Essential and desirable characteristics to include in an HEA

Essential	Desirable
• Age • Disability (physical and learning) • Gender reassignment • Marriage and civil partnership Pregnancy and maternity • Race • Religion and belief • Sex • Sexual orientation • Unpaid carers • People with mental health problems • Socioeconomic status	• Long-term unemployed • Sex workers • Gypsy and Travellers • Homelessness • Undocumented migrants • Other vulnerable groups

Section 4: Auditing NHS Health Check pathway stages

This section aims to support the processes of designing and undertaking HEAs, using a pathway approach that covers outcomes as well as access. It is intended to help with identifying what inequities exist. Understanding the reasons why inequities exist is covered in section 6 recommendations: agreeing action to reduce identified inequity.

Core data

Core data includes items that are likely to be needed to support analysis across the NHS Health Check pathway and will reflect those indicators and population groups of interest, as identified in section 3. Figure 4 cross tabulates a number of potential indicators of need with pathway stages and may be useful in identifying the focus of HEAs and sources of core data.

Where centralised data systems are in place, enabling quick and systematic data extraction, it may be advisable to extract data on a small number of indicators, or on a pilot basis covering a reduced number of providers or a defined geographical area to become familiar with the quality and functionality of the data available. Where it is time consuming to extract data from a range of different patient information systems, across a large number of individual GP practices, it may be necessary to extract as much data as possible at the outset, with limited opportunity to assess data quality.

Where a number of different providers are delivering and recording checks using different systems, consider using data recorded by each provider at source, or from a common dataset eg the NHS Health Check results data transferred and ultimately recorded onto the patient's GP held record. Restricting data to that ultimately recorded on the GP held patient record will make analysis easier but may exclude a number of checks carried out by third parties, particularly where transfer of results is reliant upon manual methods (telephone, fax or email). Comparison of provider and GP held data can be used for triangulation and may enable identification of data transfer issues, but this will be reliant upon correct coding within the GP practice to enable 'third party' checks to be identified. Measures will need to be taken to ensure that data collated from a number of different sources does not lead to double counting. For more on data analysis and data quality, see section 5.

Qualitative Data

At the appropriate stage of analysis, qualitative data may be used to support the quantitative data. Providers should be collecting feedback from those who have received checks and their experience of them. This might include patient feedback forms, consultation with the local HealthWatch and/or community or third sector groups

representing local people. Insights from any additional local evaluations involving patient views could also be included. For example, follow-up calls to those not responding to written invitations, focus groups with local community groups or locally commissioned insight work.

While qualitative data may provide valuable additional insights into what inequity exists, where used, and depending on the method through which the data is collected and sample size, caution will be required, since it is unlikely to be representative (eg data resulting from follow-up surveys will not be completed by all recipients of checks). In practice, more detailed use of qualitative data is likely to be needed after the audit and analysis, when exploring reasons for inequity identified and how to address it. For information about agreeing action to address inequity, see section 6 and the associated appendix. This includes a range of examples of possible ideas for action, together with resources and local examples.

Figure 4: Stages of the NHS Health Check Pathway and potential indicators of need

			Indicators which may help to identify need										
			Sociodemographic				Behaviours				Policy		
			Age	Sex	Ethnicity	Socioeconomic status	Smoking	Physical inactivity	Alcohol consumption	Overweight/obese	Protected characteristic	Priority group eg Carer	Other eg groups identified by population segmentation tools
Pathway Indicators	Access	Population identified as eligible for NHS Health Check											
		Population invited for NHS Health Check											
		Population attending NHS Health Check											
	Outcome	Population receiving risk assessment/CVD risk score											
		Population diagnosed as having a CVD											
		Population receiving lifestyle advice/referral											
		Population receiving/referred for clinical follow up											
		Population placed on CVD high risk register											
		Population placed on CVD disease register											

Auditing the pathway 1 – access to NHS Health Checks: Auditing this section of the pathway is about identifying and understanding potential inequities among those who respond to invitations and take up checks, compared to those who are not invited, do not attend or drop out part way through the pathway.

a. Eligible population: Approaches to identifying the cohort of people eligible for checks varies greatly and have the potential to contribute to inequity. Quality and consistency may be affected by a range of factors such as data extraction systems,

design and running of queries, use of standardised codes and data entry templates. In addition, there is the challenge of identifying those not registered with GP practices.

Questions to consider	
How are eligible people identified?	
Can the profile of those that do not respond to invitations and/or that respond but 'do not attend' (DNA) for checks be identified?	
Where individual GP practices identify their eligible population, how reliable/consistent is this?	
Where invitations are generated outside GP practices and sent to all within the 40 to 74 years old age bracket, what inequities may arise as a result of the need for self-exclusion?	
What is the proportion and profile of the eligible population excluded from invitations due to their GP practice not being signed up and no alternative community provision available?	
What proportion of the eligible population is not registered with a GP? What are their characteristics (eg homeless people or those moving through criminal justice system[2])?	
How well does the population identified match the expected profile of the eligible population?	

b. Invitations: To understand potential inequities in invitations for an NHS Health Check, a comparison needs to be made between those who have been invited to attend against the profile of the eligible population (rather than general population), as detailed in section 3.

Questions to consider	
What is the profile of the eligible population who have been invited? How does this compare to the profile of those who have not been invited?	
Where checks are offered opportunistically during routine GP appointments, or by alternative providers (eg community pharmacies), what is the profile of users? How does this profile compare to that of people receiving invitations as part of a planned schedule?	
Where certain groups are prioritised for invitations (eg using risk stratification tools) is the approach actually reaching those with greatest risk of CVD premature death, or may some people be missed (eg those visiting their GP infrequently who may have gaps in their patient record)?	

c. Take up: Inequities may arise for many different reasons, such as variation:

- in promotion and awareness of the NHS Health Check programme
- in choice of providers
- between and within provider types

[2] Public health care for people in prison and other places of detention is a s7a service as defined in the NHS Public Health Functions Agreement 2015-16 and so resides with the local NHS, with whom local authorities will need to liaise to ensure effective pathways in place.

- in type of invitation: opportunistic or scheduled; verbal or written; use of behavioural insight informed invitation letters (see the invitations and take up section of the appendix for more about behavioural insights and other mechanisms for increasing take up)
- in formats and languages offered and whether invitations are provided in line with the mandatory requirements of the Accessible Information Standard
- number and type of reminders (eg written, text or telephone)
- training of those making invitations
- the level of buy-in and belief in the programme of those providing checks

Depending on the purpose of the audit and data available, it may also be useful to look at the profile of those not responding to invitations, failing to attend booked appointments, dropping out along the NHS Health Check pathway or opting out of the programme. This will allow for a better understanding of the implications of attrition along the pathway. For instance, the action required to increase take up from those who are motivated enough to book an appointment but are unable to keep it is likely to be very different from those who do not engage at all. For more information about improving take up, see the invitations and take up section of the appendix.

Questions to consider	
What is the profile of those attending and receiving checks compared to a) the overall eligible population and b) those that have been invited, but did not attend?	
What differences are there between the profiles of people receiving checks from different provider types? (eg GP practice, pharmacy, outreach).	
What differences are there in the profile of people who do not respond, do not attend booked appointments or opt out of the programme?	
What is the profile of those that attend checks as a result of text or telephone reminders, where used?	

Auditing the pathway 2 – Outcomes: Auditing this section of the pathway is about identifying and understanding potential inequities in the outcomes of checks. This may be useful in understanding how much the programme contributes to reducing gaps between estimated and recorded disease prevalence, overall and within specific groups. When considering outcomes, it may be necessary to make assumptions about causality – for example, to assume that when a patient begins using statins within a set period of having an NHS Health Check, that this was as a direct result of having a check. Where used, it would be useful to have such ‘rules’ explicitly stated.

a. Referrals made and taken up (clinical and lifestyle interventions): To fully understand potential inequities, it is important to compare the profile of those who are offered and who take up clinical or lifestyle interventions with the profile of the overall eligible population and with the profile of all those who receive checks. This will help with identifying attrition points along the pathway where people may drop out of the service, and how these may vary for different groups. For example, if referrals for stop

smoking services are being offered and/or accepted more frequently by some groups than others where smoking prevalence is high, this may highlight the need for further training for those delivering checks and/or the need for insights work to better engage and motivate certain groups.

Questions to consider	
What is the profile of those who are referred to lifestyle interventions for: • smoking cessation? • weight management? • physical activity? • alcohol advice? • NHS Diabetes Prevention Programme (DPP)? • health trainer? • other lifestyle intervention and/or integrated wellbeing service?	
What is the profile of those who are referred for clinical follow-up as indicated by: • CVD risk score >20%? • raised cholesterol? • the diabetes filter (BP>140/90 or Obese)?	
What is the profile of people who take up each lifestyle intervention, compared to those who decline?	
What is the profile of people who attend for follow-up, compared to that of those who do not?	
For each type of referral, how do the profiles of people referred and of those taking up referrals compare to the: • overall eligible population? • profile of all those receiving checks?	
What information is available about the reasons for referrals being declined?	

b. Outcomes of clinical and lifestyle interventions: Understanding inequities in the outcomes of referrals will provide valuable insights. With adequate data management and extraction systems and data sharing agreements in place, it should be possible to track short term outcomes, such as referral to lifestyle interventions or prescribing of statins. More sophisticated systems combined with data sharing agreements that cover patient level data should enable use of NHS numbers, or other identifiers, to create pseudonymised data to track longer-term outcomes. This could be used to link receipt of checks with future events in primary (eg quitting smoking after referral to smoking cessation services) or even secondary care (eg admissions due to cardiovascular incidents). Even where such systems and agreements are not in place, it may still be useful to consider the questions below to help identify potential improvements to support future audits. For information about opportunities for improving data access, see the cross-cutting section of the ‘developing recommendations’.

Questions to consider	
What is the profile of those who successfully quit smoking after referral to stop smoking services, compared to that of those who are not successful?	
What is the profile of those completing lifestyle interventions (eg NHS Diabetes Prevention Programme, weight management or physical activity interventions), compared to those that drop out?	
What is the profile of people who are prescribed statins, medication for blood pressure and/or type 2 diabetes as a result of a check? Can this be compared to the profile of those that decline?	
What data is available about the longer term outcomes for those receiving checks? For example, acute admissions for cardiac incidents.	

c. Exiting the NHS Health Checks programme – risk management pathways:

While in exceptional cases individuals may opt out of the programme, the main reason for exiting the programme will be due to diagnosis leading to individuals being placed on disease registers. This includes those that exit the programme due to being identified as having a risk score of 20% or more, after which they should be managed through annual review and/or placed on a CVD high risk register. Understanding the profile of those exiting the programme is therefore important for understanding equity of outcomes. This can also help with identifying any inequities in the extent to which the gap between estimated and recorded disease prevalence is being reduced across different groups.

Questions to consider	
What is the profile of people who exit the programme to be managed through: • long-term condition registers (eg hypertension, CHD, diabetes, CKD) • CVD high risk (10-year risk score 20% or above)? • local protocols for people prescribed statins	
What is the profile of people exiting the programme for any other reason (eg opt-outs)?	

Section 5: Analysis

The nature of the data analysis used to explore equity at each stage of the NHS Health Check pathway will be dependent upon the resource and expertise available, but will probably include a combination of descriptive and inferential statistics. While it is beyond the scope of this document to provide detailed guidance on statistical methods, there are a number of issues to consider when interpreting results.

Data availability and quality: An understanding of data quality will be key, including understanding how complete and consistent data is and whether there have been data structure or coding practice changes over time that might introduce bias or artefact when interpreting results. Even where service specifications require standardised methods of data entry and external software systems to be in place, there are likely to be data quality issues.

External system suppliers are likely to have a quality assurance process, which will help in determining the level of data completeness and quality and in deciding what data is to be extracted. Where the intention is to analyse data at pseudonymised patient level from, for example, GP practice systems, the nature of the data being analysed needs to be understood. For complex data collection systems, access to a comprehensive data dictionary will be required, which describes the fields and data that are being collected. It should be possible to obtain this from external and/or GP system suppliers, to assist with definition of fields in the system.

Where data is collated from a number of different providers, significant differences in the range of the data may exist, both within providers' types (eg GP practices) and between them (eg GP practices compared to pharmacies). This may be due to variations in data management systems and/or the skills of those responsible for data extraction. This may restrict direct comparisons between providers, which would need to be acknowledged as a limitation of the audit.

Data quality and gaps may restrict analysis. For example, ethnicity data is often missing from patient records, while information about socioeconomic and behavioural risk factors is less likely to be recorded accurately than clinical data. A surprising number of HEAs report that CVD risk score data is missing from NHS Health Check records. Similarly, data about sexual orientation and trans status may not be routinely recorded by all GP practices, creating a barrier to understanding existing access or targeting this group if found to be under-represented.

The availability of data will also be affected by the quality of data recording and by what agreements are in place regarding data sharing. For further information about data sharing agreements and protocols, see cross-cutting section of the 'potential recommendations'.

Eligible population: GP systems may overestimate the eligible population due to the presence of 'old data' on patients who have died or moved away but remain on systems. Some patients (eg males, older people and certain ethnic groups) are at higher risk of CVD and a significant number will have already been identified in routine GP consultations. Similarly, substantial numbers of those with high risk lifestyle behaviours may have already been placed on registers that exclude them from the programme. It is important to acknowledge, however, that the proportion of the population on local disease registers may reflect not just local prevalence of CVD but also the proactivity of individual GP practices in identifying and assessing those potentially at risk.

It should also be recognised that people who are not registered with a GP practice will be excluded from the NHS Health Checks programme, unless reached through other means. This is often an issue in areas with a transient or changing population and may include some of the most vulnerable groups, such as homeless people, undocumented migrants, Gypsy and Traveller communities and sex workers.

Provider selection, size and activity: The respective size of individual providers may also need to be considered. The eligible population registered with individual practices may vary considerably. Operational and data recording methods within individual large practices may also skew results. This is often an issue when analysing indicators such as deprivation, which use data gathered at LSOA level.

Activity levels (eg numbers of patients invited for an NHS Health Check) are also likely to vary between GP practices and may be recorded differently. Local approaches to sending invitations and coding activity may mean in some practices, multiple invitations sent to one individual patient are erroneously counted as more than one offer. This could result in inequity that may be hard to detect, with significantly more patients not receiving invitations than may be first apparent from the overall number of offers recorded. In many practices, staff capacity issues may result in variations in activity over time. It is important then to consider the time period that the analysis covers. Data gathered over a short period of time may provide a snapshot of the equity gap at a point in time, but may not take account of longer term trends in activity within and between providers.

Where audits are undertaken on a limited number rather than all providers, caution will be required with analysis, as characteristics of eligible patients at the selected practices may not be representative of the wider population. Systematic bias can be introduced where non-participating practices have similar characteristics. For example, they may be in more deprived areas or be mainly single-handed practices. It is, therefore, important to assess the extent to which such bias exists, its potential impact from an equity perspective and describe what measures have been taken to reduce or eliminate bias.

It is important to be aware of the risks of ecological fallacy. The attribution of characteristics to individuals based on the characteristics of the individual's environment or group to which they below. Clarity from the outset about the unit of analysis and about the ecological constraints surrounding data availability will help when it comes to interpreting findings and their implications.

Tracking outcomes: Following a pathway approach is important to ensure audits identify inequity in outcomes as well as access to checks, such as variations in who goes on to receive appropriate aftercare. Consideration will need to be given to the rules used to identify outcomes. For example, the timeframe within which prescribing of statins or referral to lifestyle service will be assumed to have resulted from an NHS Health Check. This will, however, require the application of complex linked data analysis. If this is beyond scope due to data availability/quality issues, then it is important to acknowledge this as a limitation.

After extraction the data will require cleaning. This may involve, for instance, identifying inconsistencies in age ranges or ethnic groups that are systematically missing. Subsequently, it may be necessary to analyse data by specific provider, to identify particular issues in data collection and recording. Given the complexity of the NHS Health Check pathway and limitations in many data management systems and sharing agreements, it will be important to take a pragmatic approach but acknowledge any limitations as part of the audit process.

Section 6: Recommendations: agreeing action to reduce identified inequity

Once the audit has been completed and findings analysed, a picture of any existing inequalities should emerge. With clear understanding of what inequalities are at each stage of the pathway, the next stage is to explore the reasons for inequity, and how and why they have come about, so that action can be identified to address them. It is important to ensure recommendations resulting from the audit are developed collaboratively, so that they are informed by a range of stakeholders. In addition to those involved with the NHS Health Check pathway, consider involving those who are able to represent the views of those for whom inequity has been identified, such as community groups and the third sector (for further information about 'who else needs to be involved', see the scoping section). This will also help to ensure adequate buy-in and resources to ensure action can be implemented.

Recommendations should ideally be SMART (specific, measurable, action orientated, realistic, timely). In developing recommendations, it is useful to consider each stage of the pathway. There may also be cross-cutting issues that address issues of inequity issues but also limitations of the audit process itself. For example, where the audit was limited by availability of data, a review of IT infrastructure may be required to support more effective audits in the future.

Although the inequities identified through audits will be unique depending on population, commissioning model and stage of maturity of the programme, there are also likely to be some similarities. The table in the appendix includes a range of ideas, albeit not exhaustive, that could be considered in response to commonly identified inequities and/or limitations. Against each recommendation, a range of information, resources and examples are given to help with formulating and taking forward recommendations.

Section 7: Closing the audit cycle – reviewing the impact on inequity

A Health Equity Audit is a systematic and cyclical process, which aims to both identify inequities and guide changes in resource allocation, to meet need and promote equity in health outcomes. So the final stage of the audit is to review and evaluate whether any actions and recommendations that resulted from the HEA have led to the change in inequity. This allows effective monitoring of progress with implementing recommendations and assessing their impact. In turn, this may add to the evidence base for which interventions are effective and support the case for further resource allocation or reallocation.

The method for conducting the review, including determining the data and indicators to be collected for monitoring, should be established as soon as the recommendations have been agreed. These indicators can then be used to review progress, including whether actions have been completed, what impact they have had and on whom. It is important to consider not only positive impact in closing the inequity gap, but a change in either direction, including any unintended negative effects on equity. The outcomes from the review should then help to highlight where further action may be required.

Appendix: Developing recommendations – suggestions, examples and resources

This appendix has been included to support the development of recommendations resulting from Healthy Equity Audits. Whilst the recommendations resulting from any HEA will be unique to that audit, below is a summary of suggestions to inform potential recommendations, together with information, examples and resources to support their development.

Where further information is required about any of the examples below, please contact your PHE Centre NHS Health Check lead who will be able to identify the relevant centre lead through the PHE Centre LA look-up and request contact details.
Recommendations are divided in to pathway stages, plus an initial section on cross-cutting issues, focused on ideas for improving the audit process.

Potential recommendations	Case studies, examples and useful resources
Cross-cutting issues	
Where the HEA process was significantly limited by the availability of adequate breadth, depth or quality of data, recommendations may be required to promote improvements in data input, management, extraction and sharing, to enable more comprehensive audits in the future. This may include recommendations about both NHS Health Checks specific IT infrastructure and GP practice systems. For example, where there are gaps in data relating to protected characteristics, recommendations may be required regarding how to increase recording of this data within patient records, particularly those characteristics which are indicators of CVD such as sexual orientation and the trans status.	PHE's IG and data flows pack can be found on the Data and Information Governance pages of the NHS Health Checks website. It includes information, guidance and recommendations about data extraction and management, including legislation and functionality of a range of commercial software solutions. Whatever the local IT infrastructure, it may be useful to obtain a data dictionary from GP system suppliers. The Data and Information Governance pages of the NHS Health Checks website also provide further information about data flows, example data processing contracts, privacy impact assessment screening tool, templates, toolkits, presentations and examples of local resources. Further information and case studies illustrating the different relationships between data controllers and data processors can be found in the IG and data flows pack detailed above. These resources may be helpful in exploring opportunities for accessing patient level data to help track outcomes of checks. There are also agreed read codes for use with the programme. So please check the IG and Data pages or contact your PHE Centre lead or the NHS Health Checks Team for the latest version. Some areas such as Warrington and the Northern and Yorkshire Knowledge and Intelligence Team are developing templates and queries to support data extraction to facilitate effective audits and ensure access to relevant primary care data. NHS Health Check Forum is also a good mechanism for finding out about approaches to data management in other areas.
Consider application of	There is already extensive learning from behavioural insights

behavioural insights to gain greater understanding of key attrition points along the pathway, using existing behavioural insights findings and/or undertaking work locally.	projects available that can inform local implementation, including 'top tips for improving uptake' available on the national guidance pages of the NHS Health Check website. To tap into the behavioural insights network or for further information about PHE's Behavioural Insights Team, contact your local PHE Centre NHS Health Check lead or NHS Health Checks Team.
Consider partnering with local academic institutes to undertake local research and support robust approaches to evaluation for any new approaches being tested/considered.	In addition to making direct links with local academic institutes, it may be useful to contact relevant research support organisations regarding funding opportunities and to help with making relevant local links: • the National Institute for Health Research (NIHR): Provides support to promote high quality research by funding a range of infrastructure facilities • Academic Health Science Networks (AHSN): work to align education, clinical research, informatics, innovation, training and education and healthcare delivery to improve health outcomes, through supporting the translation of research into practice and development of local collaboration. Contact details for all 15 AHSN in England can be found here • Research Design Service: provides design and methodological support to health and social care researchers across England to develop grant applications to the NIHR and other national peer-reviewed funding programmes. RDS advisers in bases across England offer a unique breadth of experience and a proven track record in improving research applications Two examples of focused evaluation programmes are the Greenwich Evaluation of the NHS Health Check Programme and the NHS Health Checks Outreach Programme in Medway, which are both available on the NHS Health Checks website. A number of other examples of broader local evaluations are available on the NHS Health Check website.
Consider what community assets and expertise are available and identify opportunities for community engagement to gain insights and/or identify opportunities to reach those groups for whom take up is low, via third sector organisations and community groups. This could include national organisations representing specific groups as well as local groups and organisations. See the outcomes section below for more about asset based approaches.	For examples of innovative approaches to engaging underrepresented groups, see the range of past and upcoming webinars and case studies on the NHS Health Checks website. The NHS Health Check Forum can be used to put out a call to commissioners across the country for examples of work with any specific groups that may be of interest, or contact your local PHE Centre who may be able to signpost you. An example of local community engagement is the partnership Haringey Council and Tottenham Hotspur Football Club to provide Community Health Checks. This project uses the unique appeal of a Premier League football club to help to improve early diagnosis and provides an opportunity for the Tottenham Hotspur Foundation to support the local community in making behavioural adjustments by signposting them to relevant health services. The work of FaithAction provides an example of how national organisations can help. FaithAction are collecting examples of

	where faith groups have been involved in NHS Health Check and can be contacted for help with identifying potential local faith groups who may be able to host NHS Health Checks, or provide insights on how best to engage those they work with. Another example is the work of sense, a national charity that supports people who are deafblind, have sensory impairments or complex needs, to enjoy more independent lives. They have produced a report on Equal Access to Healthcare which outlines the personal experiences that people who are deafblind have faced when accessing healthcare. For further help in identifying and getting in touch with third sector or community groups, talk to council or third sector community development teams, as a route in. The Voluntary Sector Health and Care Strategic Partnership enables voluntary and community sector organisations to work in equal partnership with the Department of Health, NHSE and PHE and may also be able to help with identifying relevant groups and organisations to work with.
Identification	
Where the identified eligible population does not match the expected profile, further consideration may be needed regarding reliability of extracted data.	See cross-cutting issues section for resources and information about data extraction, management and IG.
Consider commissioning alternative providers: • where full coverage is not provided through GP practices • to increase choice and hours of access where take up is low or certain groups are not accessing the services	Checks delivered in pharmacies: About a third of local authorities now commission pharmacies to deliver NHS Health Checks, including East Riding, Greenwich, Portsmouth, Kent, West Sussex and Surrey, and Devon. In Devon an online map was made available to signpost to alternative provision through designated pharmacies in areas where GP practices opted out of provision. This also helped improve access to the service, with checks available on evenings and at weekends. In Kent and West Sussex, 'tiered' service specifications allow GP practices to opt in to delivery at various levels. In West Sussex, provision of checks in 70 pharmacies promotes patient choice and fills gaps in GP capacity and provision. The lowest tier is provision of patient contact details, followed by identification and invitation only, through to provision of checks for own and other practices. Where practices chose not to provide checks, patients are informed of local pharmacies where they can receive checks. In Kent, the use of pharmacies is primarily to 'fill the gaps' in services where GPs chose not to have a contract with the provider. Surrey also commission checks in nearly 60 pharmacies to promote patient choice and access. Many local authorities provide outreach services in community venues such as leisure services, libraries, mosques,

	supermarkets and workplaces, with locations selected to increase take up in high risk groups or those where uptake is low. Some examples of outreach and targeted checks include: • Salford: a case study about the project to engage the Orthodox Jewish community is available on the NHS Health Check case studies webpages (together with a range of other case studies) • Cornwall: the Outreach NHS Health Checks team initially visited fishing ports to carry out NHS Health Checks. They have since run a roadshow for fishermen and worked to embed NHS Health Check provision across a number of locations to improve access to local communities • London: free drop-in NHS Health Checks are provided for residents and manual workers in the City of London at community venues across the City of London. In Camden and Islington, checks are widely available in a range of community locations including at community fairs and events, supermarkets as well as through pharmacies A generic service specification for pharmacies and outreach has been produced for London, led by Richmond, which is available on the service specifications section of the NHS Health Checks website There are also a number of webinars that can be found on the NHS Health Check website including: • Teesside: NHS Health Checks in the workplace • targeting high risk groups: learning from Camden and Islington • delivering NHS Health Checks in the Workplace: learning from Enfield Council • how NHS Health Checks in community and workplace settings can benefit clients by Pennine Care NHS Foundation Trust
Consider alternative approaches to commissioning NHS Health Checks and/or supplementary service that could help to increase access.	An increasing number of local authorities are moving towards integrated wellness services, which may also create opportunities for engaging groups who find more traditional services inaccessible. Areas who have commissioned integrated wellness services or who undertaken work to inform a potential move in this direction include Portsmouth, Derby, Ealing, Camden and Islington, Birmingham, Dorset, Luton, Knowsley, Kirklees and Bolton. Contact your local PHE Centre who can put you in touch PHE South East and/or York and Humber for more information on the range of approaches developing across the country. The NHS Health Check Forum can also be used to ask others to share details of examples of similar approaches. A number of local authorities and/or CCGs have introduced community Health Champions or navigators to help promote access to services, including NHS Health Checks, such as in

	Durham, Luton and Brighton and Hove. In Kent, there is an integrated model of delivery between NHS Health Checks and the Health Trainer service. All Health Trainers are trained to deliver NHS Health Checks as well as 'MOTs' for those not eligible. Health Trainers support the delivery of outreach checks, targeting areas of greatest deprivation and enhancing the service offered by ensuring that follow-up is completed, ensuring people are plugged in to local lifestyle services but also using the results of checks as the basis for Health Trainer interventions. This includes the offer of follow-up appointments at three and nine months, improving both patient experience and outcomes. Some areas such as Kent and Hampshire have developed NHS Health Check digital apps to help maintain engagement and support behaviour change of those receiving checks.
Invitations and take up	
Consider whether audit results provide an adequate understanding of variations in take up or further analysis is required.	A range of service and software are available that can help with segmenting non-attendees or DNAs in order to better understand their needs. For further information, consult with local public health analysts or contact your PHE Knowledge and Intelligence Service (via your NHS Health Check PHE Centre NHS Health Check lead).
Consider using audit results to inform the design of an outreach service specification or to tailor primary care service specifications to incentivise providers to reach those from under-represented groups. Approaches may simply involve differential payments, or options to run local audits on patient records to identify and prioritise those from deprived areas or at high risk from CVD.	In Medway, an HEA was used to inform an outreach service specification that gave higher payments for checks given to people meeting one or more characteristics linked to low attendance. In Brighton and Hove, enhanced payments have been introduced to incentivise GP practices to engage with people living in more deprived areas or who have been identified as higher risk. Checks for this group also include mental health screening questions. Camden also use an incentivised payment scheme to target priority groups, as detailed in their targeting high risk groups webinar on the NHS Health Checks website. In Oxfordshire, practices are incentivised to ensure all eligible registered patients are invited through an 'invite tariff', with invitations only paid for when practices can demonstrate that they have invited between 18% and 22% each year. Practices are further incentivised to maximise their take up rates through the use of a 'checks completed tariff'. This includes a sliding scale of payments per check, which increases as overall take up rate increases. An increasing number of local authorities use risk stratification to promote equitable uptake and prioritise resource allocation, including Tower Hamlets, Haringey, Sheffield, Surrey and Richmond. A range of other relevant examples of targeted outreach and engagement are available on the NHS Health Check website including case studies from Tower Hamlets, Bolton, Manchester and Islington. Hampshire have also undertaken a pilot outreach project to engage the Nepalese community. The NHS Health Check Forum can be used to post a

	request others to share similar approaches.
Review approaches to invitations and reminders. This should include consideration of whether invitations are provided in a range of ways to account for differences in need, such as language and literacy barriers or visual impairment and that also indicate how these needs can be met during checks (eg access to interpreters). As part of this, consideration should be given as to whether all duties follow the Accessible Information Standard. The review could also draw on existing behavioural insights research and/or could lead to testing of new behavioural insights. In addition, consideration could be given to including financial incentives within service specifications to encourage proactive follow-up of non-responders.	The national invitation letter template was developed after RCT testing in Medway which resulted in a significant increase in take up when this shorter letter with a tear off reminder slip was used. The Top Tips for increasing the uptake of the NHS Health Check on the 'best practice' pages of the NHS Health Check website provides an extremely valuable summary of the key learning from behavioural insights research. It includes details of how take up can be significantly increased through the use of text message primers and reminders, behaviourally informed messaging in invitation letters, targeted telephone outreach and prompts within GP practice clinical systems, many of these at little or no cost. Keep the following questions in mind when reviewing how invitations are made: • do service specifications require all providers to send a minimum of one invitation and two reminders? • are all providers delivering invitations and reminders in line with service specifications? • are all providers using the short version of the invitation letter trialled in Medway and now recommended by the national NHS Health Checks team? • could more proactive/innovative approaches to invitations and reminders be tested for groups where take up is low? For example, text or telephone phone reminders, telephone follow-ups for DNAs, pop-ups used in GP clinical systems? • have variations in approaches within the area been compared and learning shared to enable those with lowest uptake from key groups to learn from the best performers? For specific queries about new ideas for improving uptake through new approaches to invitations, try a post on the NHS Health Check Forum or contact your PHE Centre NHS Health Check lead.
Consider collecting user feedback universally through patient experience questionnaires or in a targeted way. For example, if telephone contact is being used for reminders and/or DNA follow-up, consider using this contact as an opportunity for feedback on reasons for not responding.	Questionnaires can be postal, online or attached to the back of NHS Health Checks results packs. Examples include: West Sussex, Blackpool and Wakefield, some of which can be found on the NHS Health Check website. In Brighton and Hove, the outreach service specification includes a requirement to follow-up individuals invited for an NHS Health Check but who do not attend, to provide information regarding the benefits of the programme, answer queries raised and make referrals and appointments for a check. This work is carried out in partnership with GP practices. Wandsworth have also developed a targeted outreach project. The local GP federation has been commissioned to use general practice data on non-responders and estimated CVD risk to prioritise those most at risk and/or least likely to access checks.

	Local community groups and local or national third sector organisations may be able to offer advice or help with accessing the views of those they represent. For help accessing these groups and organisations see the cross-cutting issues section above.
Audit findings can be used to develop targeted social marketing campaigns.	The NHS Health Checks Marketing Toolkit includes a broad range of information and resources to help with developing and delivering local campaigns as well as case studies to support engagement with high priority groups.
Consider using targeted outreach to raise awareness of and promote uptake in GP practices serving under-represented communities. This may be a more cost-effective alternative to providing checks in the community.	Alongside the GP practice service spec that incentives targeting of those in deprived areas, Brighton and Hove have a community outreach service specification in place through which outreach, support and follow up to those not responding to invitation to checks. The service follow-up those not attending, particularly those from target groups, providing further information about the benefits of checks. Where need is identified, checks can be provided in accessible community venues.
Consider opportunities for community engagement approaches to gain insights and/or identify opportunities to engage with those groups for whom take up is low via community groups and local or national third sector organisations.	See behavioural insights and community development sections in the cross-cutting issues section.
Outcomes: referrals made, taken up and referral outcome	
Develop clearly defined pathways where these are not in place, to promote and support effective referrals.	To be effective, pathways should be developed in partnership with key stakeholders including CCGs, GP practices, hospitals, community groups, third sector organisations and relevant upper/lower tier authorities, incorporating clear eligibility criteria and where possible linked to local online resources, such as directories of local services. Many local authorities have NHS Choices pages giving information on the NHS Health Checks. Some examples include Croydon, Doncaster and Bracknell Forest who have syndicated NHS Health Check content onto their local website.
To improve referral rates, review systems and resource for informing providers of the range of services that can be referred or signposted to. This should go beyond traditional lifestyle interventions and incorporate services that may be more acceptable to groups that maybe being	Ensure all providers are aware of and able to access up to date information about online services readily and easily. To encourage referrals, link services to clinical pathways (see above). Consider how to promote referrals through training and/or incentives. For example, in Brighton and Hove payment for referrals to health improvement services has been introduced. Supplementary support through integration with Health Trainer services may also improve outcomes, as described in the above example in Kent. As detailed above (see 'alternative approaches to commissioning' in identification section above), integrated wellness services may

under referred (eg community allotment projects, Health Trainers or timebanks).	help to improve referral rates. Many local authorities are developing asset based community approaches. This is in recognition of the need for integrated, accessible services that take in to account the range of health beliefs and health behaviours of potential service users and optimise the use of positive assets (eg volunteering, local skills and knowledge, physical infrastructure, local reach and respect within specific communities), that can be utilised to compliment or inform the development of NHS and LA commissioned services. Where possible, directories or websites of local services should incorporate relevant community based assets. Leeds is an example of a local authority that has considered the use of community assets, through a consultation and insights report on their planned Integrated Healthy Living Service, available online. Birmingham City Council have developed a Plan on a Page to outline their Lifestyles Strategic Direction for an integrated wellness service that encourages community engagement and maximises the use of community resources. Livewell Gateshead is a good example of utilising commissioned and community resources to improve health and wellbeing. Also in the North East, the Ways to Wellness based in Newcastle, is a programme that uses community assets to deliver services.
Consider introduction of visual aids to support risk communication where these are not already in use, through standalone resources or IT systems which incorporate this. To support effective communication of risk and understanding of the positive impact of behaviour change.	Heart Age Tool: the British Heart Foundation have developed this tool to find out if a person's heart age is higher or lower than their actual age. Similar tools providing easy to understand visuals for communicating risk are also available through some of the commonly used commercial software solutions (some of which are listed in the appendix of the IG and data flows pack on Data and Information Governance, as detailed in cross cutting issues recommendations above). Many local authorities have NHS Health Check pages, giving information on checks. Examples include Croydon, Bedford, Doncaster, Dorset and Bracknell Forest, who have syndicated NHS Choices content onto their local website. More information on using syndication is available on the NHS Health Checks website.
Review training on risk communication, brief intervention and motivational interviewing. Consider tailored elements to focus on approaches to working with specific groups who are currently less likely to either be offered or to accept referrals. Alternatively, bespoke supplementary training could be offered to	The Wessex guidance to support staff training provides useful information about what should be included in training about risk communication and brief advice to support behaviour change. West Midlands have produced a free e-learning resource which covers this. There are a range of commercial providers of training. Your local NHS Health Check network and the NHS Health Check Forum are good places to start if looking for examples of others areas who feel they have particularly strong training in this area. It may also be useful to talk to local community groups and local or national third sector organisations to understand how training and messaging may usefully be tailored to resonate with key target audiences (see community engagement recommendation

providers where referrals are identified as being low. Local community and local or national third sector groups may be able to provide advice on such training.	in cross-cutting issues above).
Consider opportunities for community engagement and involvement to gain insights into barriers to acceptance of referrals for groups that audit indicates are less likely to accept them.	See community engagement recommendation in cross-cutting issues above.
Consider mechanisms through which those receiving checks can be followed-up to encourage and support sustained behaviour change and access to lifestyle interventions.	In Camden, a walk-in one-stop-shop provides not only NHS Health Checks but lifestyle follow-up services in an accessible shop front venue. They also provide a dedicated follow-up service to provide assistance with NHS Health Check follow-up action. This can be provided on a one-to-one basis by a Health Trainer, or through referrals into lifestyle services, with as much extra support as required by the client. The PHE OneYou campaign that was launched in 2016 can also be used to support behaviour change, and help adults across the country avoid future diseases caused by modern day life. There are a number of applications that can be downloaded which complement the NHS Health Check, including apps to promote physical activity and support people to quit smoking and reduce alcohol consumption.
Promote awareness and use of strategies and resources to help reduce variation in primary care outcomes.	The RightCare CVD Prevention Optimal Value Pathway is an evidence based pathway which provides a high-level overarching national case for change, best practice pathways for individual conditions and case studies for elements of the pathway demonstrating what to change and how. PHE's National Cardiovascular Intelligence Network (NCVIN) has produced cardiovascular disease Commissioning for Value focus packs which identify potential opportunities for improving outcomes, quality and efficiency at CCG level. A range of Commissioning for Value and other related tools are also available on the NHS RightCare website. There are also a range of relevant Health Inequalities National Support Team legacy resources available online, such as the Balanced Scorecard for Health Inequalities[ix].
Where inequity is identified, consider incorporating clear and simple data to highlight differences in take up/outcomes, in existing dashboards and/or reports used to feedback to providers and CCGs.	Below are a number of examples of dashboards and reports used by commissioners to share data on programme delivery, outcomes and inequalities with providers and other local stakeholders: • Bedford collate data at local authority, locality and GP level. This is fed back on a monthly basis, giving details of checks offered and delivered against agreed local targets and rankings

Where not already doing so, consider how such regular feedback can be used to highlight unwarranted variation or inequity and encourage action to reduce it.	• Suffolk Health and Wellbeing Board have an excellent website that includes lots of information on a range of public health topics including locally produced NHS Health Checks reports • Bristol have developed a quality assurance dashboard • Dorset 2015 Director of Public Health Annual Report sets out how they are addressing CVD and how the NHS Health Check Programme is assisting with this • Oxfordshire County Council use an annual quality assurance audit dashboard based on the PHE Programme Standards. In addition, they use a quarterly performance dashboard to feedback to providers on activity • Calderdale have produced their NHS Health Check Infographic Summary Report for 2015/16, as a brief and helpful way to provide feedback PHE London have produced a useful NHS Health Checks health inequalities briefing, which provides summary descriptions of inequalities in relation to protected characteristics. This may be useful when considering what socioeconomic factors might influence the uptake of the programme and impact on inequity.

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