



Public Health
England

Protecting and improving the nation's health

NHS Health Check digital exemplar

Discovery research findings

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Executive summary

The NHS Health Check is a national non communicable disease (NCD) prevention programme, that aims to improve the health and wellbeing of adults aged 40-74 years through the promotion of earlier awareness, assessment, and management of the major associated risk factors and conditions driving premature death, disability and health inequalities in England.

In April 2013, Local Authorities became legally responsible for making provision for the NHS Health Check.

As part of PHE's ongoing [commitment](#) to support Local Authorities to successfully deliver the NHS Health Check programme, PHE has invested in a multidisciplinary team, made up of digital, cardiovascular disease (CVD) prevention and PHE Behavioural Insights (BI), to carry out a digital [discovery](#) phase of work using the [Government Digital Standards](#) specification.

This exploratory work is looking at the potential role of digital within the NHS Health Check. More specifically, the purpose of this work is to establish: who the NHS Health Check users are; what their needs are and what they are trying to achieve; and any problems they might experience as they engage with the service. The team used a blend of service design and behavioural science techniques to establish where along the user journey digital could support, personalise and enhance end user, provider and commissioner experience. Thereby extending the reach of the service beyond the 48% of eligible people currently taking up the offer.

This report details: i) the findings from the user interviews carried out with 15 members of the public eligible for a check, 6 commissioners and 9 providers; ii) the results of a systematic literature review and behavioural diagnosis which includes 37 studies; iii) the results of a stakeholder workshop that was held to identify the key areas of opportunity that could be taken forward into the next phase of research.

Discovery insights included in this report have been grouped based on the user journey and main elements of the NHS Health Check service, from invitation through to check, then how end users would like to manage associated risk factors. Using both primary and secondary research ensured that the project was built on the wealth of existing evidence around the barriers to and facilitators of behaviours relevant to NHS Health Checks.

We identified the below insights:

- i) Invitation - It is a common challenge for providers of the NHS Health Check to identify and invite eligible patients from records;
- ii) Attendance - More flexibility in the NHS Health Check appointment times, family history of illness, the need to reduce anxiety and be reassured may increase attendance. However, end users need to perceive the NHS Health Check as relevant to them, this may be facilitated by understanding the purpose of NHS Health Checks as an opportunity to be proactive about CVD;
- iii) Delivery – There is variability in the delivery of the NHS Health Check, even within local authority areas. Providers had varying levels of confidence and competence to deliver behavioural support. The need for more training (motivational interviewing, risk communication and behaviour change) as well as having adequate time,

- resources and appropriate space to deliver NHS Health Checks were identified as key influences. Providers disagree on the extent to which NHS Health Checks were beneficial to end users and appeared to be varyingly optimistic about end users' behaviour change after their NHS Health Check. Taking account of end users' social context and appropriate message framing are perceived as important. Providers feel that digital tools could be used to develop engaging materials for communicating risk within an NHS Health Check;
- iv) Referral to specialist service and follow-up – Lack of availability of relevant services can hinder onward referral. Follow up is not a mandatory step in the NHS Health Check so there is a lack of motivation and resource for providers to evaluate outcomes. End users believe it is important to attend referral appointments regularly;
 - v) End user behaviour change in follow up – NHS Health Checks can serve as a “wake-up call” to change. However, end users vary in their understanding of CVD risk following an NHS Health Check and some are not aware of the behaviours which can influence CVD risk. The influence of family and friends in supporting change is perceived as important and providers' role can influence change differentially. Tailoring the test results and lifestyle advice to end users' personal situation was recognised as crucial. Fatalistic beliefs in health can hinder change as can contradictory guidelines. End users welcome small, incremental changes to behaviour. Certain moments in an individual's life can trigger engagement or disengagement from lifestyle behaviour change;
 - vi) Attending repeat NHS Health Check - Most end users intend to attend a repeat NHS Health Check;
 - vii) Commissioning the service - Commissioners feel there is insufficient time and resources to manage providers' contracts. There are varying levels of awareness and understanding of the national programme standards and best practice guidance;
 - viii) Recording and sharing NHS Health Check data - Recording relevant data can be hindered where multiple invitation methods are used. Different primary care IT systems, as well as the need to preserve end user confidentiality, create a barrier to sharing data.

These insights are now being used to shape the plans for the next phase of research ([alpha](#)).

It is recommended that the reader does not read this report in isolation, as there are many national NHS Health Check resources available for local providers and commissioners to access at any time and ensure optimum delivery of the programme. These are all freely available on the [NHS Health Check Website](#). Importantly, under the 'Commissioner and Providers' section, a range of national guidance has been produced using the latest available scientific evidence, including the annual [Best Practice Guidance](#) and [Programme Standards](#). There are also a number of resources available to support the provision of a high quality and equitable service, including a Systems Approach to Raising Standards ([StARS](#)) framework, a [Health Equity Audit tool](#), a [Top Tips](#) focusing on how to increase the uptake and a number of [training](#) packages and events, including a regular webinar series.

Introduction

Cardiovascular Disease (CVD) is the number one cause of deaths globally and in England, it is responsible for 1 in every 4 deaths¹. In order to address this, Public Health England (PHE) has outlined its CVD prevention initiatives, which includes the NHS Health Check digital exemplar(1). There is strong commitment from across the system to prevent CVD, particularly as 50 to 80% of CVD deaths are caused by modifiable and preventable risk factors. These include smoking, obesity, high blood pressure, high cholesterol, harmful drinking, poor diet and physical inactivity. Not only are these factors driving the burden of CVD but they are the top seven risk factors driving the global burden of non-communicable disease.

The NHS Health Check is a world-leading prevention programme as it seeks to address all of these risk factors together in order to reduce CVD risk across the population preventing heart attacks, strokes, respiratory disease, kidney disease and some types of dementia.

All adults aged 40 to 74 in England, who have no pre existing CVD conditions, are eligible for an NHS Health Check. The check provides the opportunity to assess an individual's risk, promotes earlier awareness and diagnosis, as well as supporting people to reduce their risk of CVD.

In 2013, local authorities became legally responsible for making provision for eligible people to have a check. Between April 2014 and March 2019 over 14 million checks (91% of the expected eligible population) were offered, and more importantly, over 6.7 million people had a check: 43% of the five-year eligible population². This is a major achievement, however, it does also mean that there is potential to extend the benefits of the programme by implementing new approaches which will enable take up of offers to go beyond the current level of 48%.

As part of PHE's ongoing commitment to support local authorities to successfully deliver the NHS Health Check programme, PHE has invested in a multidisciplinary team, made up of digital, CVD prevention and PHE Behavioural Insights, to carry out a digital **discovery** phase of work using the [Government Digital Standards](#) specification. The purpose of this work is to establish: who the NHS Health Check users are; what their needs are and what they are trying to achieve; and any problems they might experience as they engage with the service.

¹https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/648190/cardiovascular_disease_prevention_action_plan_2017_to_2018.pdf

²<https://fingertips.phe.org.uk/profile/public-health-outcomes-framework/data#page/0/gid/1000042/pat/6/par/E12000004/ati/102/are/E06000015>

Approach and methods

The NHS Health Check digital exemplar team used a blend of service design and behavioural science to understand the programme from an end user, provider and commissioner viewpoint. Mixed methods research was used to understand what service changes, both digital and non-digital, could be used to extend the reach of the existing programme. Agile methodologies were adopted to allow the team to adapt quickly as findings emerged.

In agile delivery, projects commence with a **discovery** phase, which intends to explore a service and understand it from the perspective of the programme's users.

These users were:

- members of the public eligible for a check
- commissioners and providers of the check
- providers of healthy lifestyle services, which many users may engage with following their check

Primary research throughout discovery was conducted through:

- digital diaries
- online surveys (which formed part of the digital diary)
- semi-structured interviews, face to face and over the phone

Mixed methods were used to analyse the data gathered from our user research activities. Content analysis was applied to all interview transcripts to gather hundreds of insights with supporting quotes. A thematic analysis was conducted to review, filter, organise and interpret the findings from end users, providers and commissioners until meaningful patterns and themes emerged. A comprehensive analysis of all identified user needs was conducted using the 'Capability', 'Opportunity', 'Motivation' and 'Behaviour' model (COM-B) and Theoretical Domains Framework (TDF) (2, 3) as frameworks through which to synthesise, categorise and describe in theoretical terms the influences, i.e. barriers and facilitators on target behaviours.

Alongside this user research, University College London (UCL) Centre for Behaviour Change (CBC) were commissioned to undertake a systematic literature review and behavioural diagnosis (4) to strengthen the evidence on the NHS Health Check digital exemplar work stream. This work applies behavioural science theory across the NHS Health Check Care pathway to understand the current barriers & facilitators faced by patients & health care professionals (HCPs) to engage with the NHS Health Check. Electronic databases Medline, EMBASE and PsycINFO were searched for publications reporting barriers to and facilitators of behaviours relevant to uptake and follow up of the

NHS Health Check. Searches were limited to 2008 - December 2018 as this corresponded to the introduction of NHS Health Checks. A panel of stakeholder experts was also assembled to suggest additional relevant publications and grey literature. Tools such as the Behaviour Change Wheel (BCW) (5), which includes the theoretical model of behaviour COM-B; the Theoretical Domains Framework (TDF) [2] [3] and the Behaviour Change Techniques Taxonomy (BCTTv1) (6) were used to identify factors which served as facilitators or barriers and provide theory-based recommendations for intervention design to maximize the impact of the NHS Health Check. The results of this analysis were used by PHE to inform the interpretation of the findings from the user research and support the planning of the alpha phase.

Results

Primary qualitative research was conducted across all regions of England including:

- 30 members of the public eligible for an NHS Health Check with a spread of demographics such as age, gender, ethnicity and socio-economic status and at various stages of the NHS Health Check journey
 - 30 completed a digital diary to enable us to understand their lifestyle, cognitive and behavioural factors, their health confidence and digital literacy
 - 15 were interviewed (selected from the 30 digital diary participants)
- 9 providers of the NHS Health Check programme and healthy lifestyle services
 - 3 primary care (GP surgery)
 - 3 community (Pharmacy)
 - 3 integrated health and wellbeing services – those who provide services to help people improve their health by, for example, losing weight or stopping smoking
- 6 commissioners of the NHS Health Check programme, covering areas with an above attendance rate for the checks and those that were below average

The systematic review included empirical qualitative and/or quantitative research and systematic review articles of barriers to and facilitators of behaviours relevant to NHS Health Check. From this, 37 studies were identified which met the inclusion criteria. The majority were conducted in primary care (total of 28) and collected data from patients (total of 25). Tables 1,2 and 3 provide a summary of the setting, participants and behaviours investigated in these studies.

Summary of study characteristics (max n=37 studies)

Table 1. Setting

Setting	No. of studies
Primary care	28
Community	7
Primary and community	2

Table 2. Participants

Participants	No. of studies
Patients	23

Healthcare professionals (HCPs)	6
Patients and HCPs	2
HCPs and practice managers	2
HCPs, practice managers and commissioners	3
Commissioners	1

Table 3. Studies reporting influences on behaviours.

Behaviour	No. of studies	Total sample size*
HCPs invite patients for NHS HC	4	171
Patients attend NHS HC	16	56,909
HCPs deliver NHS HC	18	10,604
HCPs refer patients to relevant service	3	909
Patients attend referral	1	483
Patients change behaviour following NHS HC	15	5,755
Patients attend repeat NHS HC	1	27
HCPs record NHS HC data	2	2,907

* Calculated from the number of reported participants in each study (7 studies collected national routine data on attendance behaviour only (min 12,000, max >8,000,000 are not included in this section

Insights have been identified from the interviews with end users, commissioners and providers of the NHS Health Check programme and the systematic literature review of 37 studies. These have been grouped based on the user journey and main elements of the NHS Health Check service, from invitation, through to check and then to end users and how they would like to manage associated risk factors.

Invitation

Since 2013, over 14 million NHS Health Check appointments have been offered (91% of the expected eligible population)³. An individual is eligible for an appointment if they are between the ages of 40 to 74, have not yet had an NHS Health Check in the last 5 years and have no pre-existing conditions. Throughout this research, it was identified that whilst over 90% of eligible people were invited in the first 5 years, end users and providers faced barriers in the process.

1. It is a common challenge for providers of the NHS Health Check to identify and invite eligible patients from records.

“[Sending invites] is a challenge. It’s mainly a challenge because of the variance in GP practice systems. It’s the biggest challenge.” - Provider (Head of integrated health and wellbeing service)

Attendance

2. More flexibility in the NHS Health Check appointment times could improve accessibility and increase uptake, as suggested by some end users who worked normal office hours or whose income was directly proportional to hours worked. However, some end users perceived timing and locations to be convenient.

“It’s very difficult for me to (go to the appointment) and hold on to a nine-to-five job. It means I have to take personal time off from my employer to do this...I would have to take it off as annual leave, and do it in my own personal time” - End user (7)

³ <https://fingertips.phe.org.uk/profile/public-health-outcomes-framework/data#page/0/gid/1000042/pat/6/par/E12000004/ati/102/are/E06000015>

The most successful practices described a generally flexible proactive approach to encouraging people to come for the tests that included early mornings or extended opening hours:

“I mean we have the healthcare assistants are here at 8:30, so they can have early bloods done before they go to work, and the nurse can see them before they go to work, so we’re trying to offer those facilities to people to catch them.” - Health Care Assistant (HCA) (8)

3. Family history of illness, the need to reduce anxiety and be reassured may increase attendance.

“I suppose the fact that my father died relatively young of a heart attack, probably made me fairly aware of the need to try and be healthy. . . I suppose I was thinking everybody needs to be careful when they get to their mid-fifties.” - End user [7]

“Well in one way it’s a reassurance if there’s nothing wrong. It’s an opportunity to be reminded that you should take care of your health.” - End user [7]

4. End users were not clear about what an NHS Health Check is, and how it differs from other kinds of health assessments. End users discussed the importance of feeling as though the NHS Health Check service is relevant to them.

“I’d had cholesterol tests, I’d had weight and height, I’d had more or less the whole health check very recently. So I phoned up my GP and said ‘Look I’ve just had this’ . . . I want to make sure that it’s worth my time and the GP’s time and the NHS time to do it.” - End user [7]

“I’m monitored on a yearly basis by the GPs. It’s difficult to know whether this is a follow-up to the NHS Health Check, or whether it’s simply their routine provision.” - End user

Delivery

5. There is variability in the delivery of the NHS Health check, even within local authority areas.

“There’s a huge variation in the quantity and quality of health checks for each practice.” – Commissioner

“We don't do any quality assurance on our health checks...I don't know how well our practices are delivering the health checks.” – Commissioner

6. Providers need adequate time, resources and space to deliver NHS Health Checks.

The 10-min consultation was considered too short to perform the risk assessment, give patient-centred lifestyle advice, and fully explain any prescribed medication. Practice Nurse (9)

7. Providers views vary on whether the NHS Health Check is beneficial in terms of preventive healthcare.

“I think it's a very good idea. We have a very high proportion of our patients who suffer with diabetes, almost 10% of our patients are diabetic so I thought this was an excellent opportunity to screen those earlier and pick them up and then you know be able to do something about it, you know, lifestyle management.” (10)

“I think really this is mass screening and there's not a great deal of proof behind it... Not entirely convinced with being told we have to offer a check to everyone.” (11)

8. Providers appeared to be varyingly optimistic about whether end users will actually change their behaviour after their NHS Health Check.

“Even if you assess them, even if you find out that they're a really high risk score then getting these people to take on board you know the lifestyle changes, changes to their diet, exercising more. It's very difficult to get them to take those changes on.” - Provider [8]

“There was a clear rejection of pessimism about the possibility of lifestyle change” (12)

9. Providers feel that digital tools could be used to develop engaging materials for communicating risk within an NHS Health Check.

“I guess if you could have a [digital device] with like, diagrams of blocked arteries and things like that it could be good.” - Provider (Project officer for NHS Health Check program)

10. Varying levels of confidence and competence among providers to deliver behavioural support was reported. Providers discussed the need for more

training in motivational interviewing, risk communication and behaviour change advice.

"[Training] would be good. As I say, we just learnt from our healthcare assistant what to do; basically it was ... on the job training... It would be nice to understand it in depth more." - Provider [8]

"Delivery of the health check itself...it isn't too difficult to train people to do. The bit that's more difficult to train people to do is the quality conversation part, and the behaviour change angle." - Provider (Head of health services)

11. Providers believe that taking account of patients' social context and appropriate message framing are important. An enhanced focus on how to support an individual through behavior change is perceived as crucial.

"A wider, more holistic approach to changing your behaviour for a more healthy lifestyle in general that is something that is kind of missing at the moment." - Provider (Project officer for NHS Health Check programme)

Nurses considered it important to understand people's social context, so that conversations about risk could always be individually appropriate. [9]

Referral to specialist service and follow-up

12. Lack of availability of relevant services can hinder onward referral.

Healthcare professionals expressed the importance of making referrals to external lifestyle services to support patients through the behaviour change process, but these services had difficulties with long waiting lists, budget cuts causing the discontinuation of some services and they were not always offered at times that suited the working population. (13)

13. Follow up is not a mandatory step in the NHS Health Check so there is a lack of motivation and resource for providers to evaluate outcomes.

"The service is to invite them for their check, do the check, then obviously highlight any issues offer them any help that they need... our job's done...our monitoring stops at that point." - Provider (Data quality manager at Medical Center)

14. End users believe it is important to attend referral appointments regularly.

The belief that attending regular medical appointments would help to reduce CVD risk predicted adherence to the programme. This finding suggests that those who believed treatment could reduce their CVD risk attended more sessions.(14)

End user behaviour change in follow up

15. NHS Health Check can, in some cases, serve as a ‘wake-up call’ to change end user’s behaviour.

“It did open my eyes up. I was at a certain level with my weight that I put on. I had put more on than I realised. My BMI index was going high, which I didn't realise. I thought I was okay.” - End user

“It’s really good. It makes you aware of what problems are around. What you can get and that. It is really good. It teaches you. it’s an eye-opener for people who would want to do things properly.” - End user (15)

“Several people chose not to try and lower their cardiovascular risk because they believed death from a heart attack would be preferable to dying from a protracted illness or living into extreme old age: “I am not afraid of death. If I go, I go but I want it to be quick.” (16)

16. End users vary in their understanding of CVD risk following a check and some are not aware of the behaviours that can influence CVD risk.

“The conclusion was I have a 6% chance of getting heart disease, which on one hand sounds good because 6 people out of 100, but then if I’m one of those 6 ... so I feel very unclear about it. I thought, well how close to 10 is 6?” - End user (17)

“If I go out on a Saturday night, I’ll have 10 pints. [I don’t see this as a risk to my health] because I am only having 10 pints a fortnight – one must balance the other.” - End user [16]

17. End users mention that they would like their test results and lifestyle advice to be more specifically tailored to their personal situation.

“What do I have to do to minimize the risk? It's not the value of the risk, where it's 19.5% or 22%, it's what I've got to do to keep it as low as possible, and what can I do within the realm of my own strength of character?” - End user

18. The influence of family and friends in supporting change is perceived as important and providers role can influence change differentially.

“I had a FitBit...there's an app on it and then you've got a challenge, so there's about six of us, all six girls at work, we all do it. It's called the Weekly Hustle, and it's a week hustle and at the end of the week it tells you who's won.” - End user

In some interviews, participants discussed how different clinicians influenced the success of behaviour change interventions. Some thought that if the intervention was delivered by a GP it would have a bigger influence on patients. Others argued that patients might be more open and engaged with interventions delivered by nurses and HCAs, due to the ease of the relationship. One manager thought that patients would be more open in community settings rather than with their healthcare provider. [13]

19. Fatalistic health beliefs can hinder end user's change of CVD risk-related behaviours as can contradictory health guidelines.

“Research hasn't ... convincingly proved, that certain lifestyle...changes do affect the likelihood of getting those debilitating diseases. I think if it's in your genes that you're going to get them” - End user

“You can be as careful as you want; you can eat as healthily as you want; you can do all the exercise you want and you could still get ill. It is like J's mother who lived to be 101, smoked like a trooper, never had a cigarette out of her hand and she died of something silly.” [16]

People showed reluctance to make changes to their lifestyle, noting that any guidance they were given was likely to be subject to change...stating that previous guidance about healthy eating suggested that the consumption of eggs should be restricted; then the reverse was promoted. [16]

20. End users perceive small, incremental changes to behaviour to be acceptable and more likely to be achievable.

For many participants, making small and sustainable changes to their diet by consuming less salt and fat was achievable, as long as it did not cause too much disruption to their daily routines. (18)

“We can support them to identify what they feel might be manageable... tackling one issue at a time and looking first at what is a priority for them.” – Provider

21. Certain moments in an individual's life can trigger engagement or disengagement from lifestyle behaviour change.

“Four years I'd stopped smoking. And then my sister died and I found the stress from that...it starts again.” – End user

“I moved here permanently two years ago, that was a big change ... Before I'd be having to get two buses to work, but I was just getting straight on the bus going straight into work, whereas now I walk to my job and I walk home. It's just totally different being in the city centre.” – End user

22. Time and cost act as barriers to end users changing behaviours which directly influence CVD risk.

A number of patients, especially those from lower socio-economic groups, encountered barriers in adopting healthy eating, citing the cost of eating fresh fruit and vegetables. (19)

However, a number of health professionals did not view social and material factors as real impediments to lifestyle change. [12]

Attending a repeat NHS Health Check

23. Most end users reported the intention to attend a repeat NHS Health Check.

“I think, well, I eat healthily, you know, and I believe in a healthy lifestyle. I know there are other internal things which could go wrong. But yeah, I would definitely have [an NHS Health Check] again if it came up next week, you know, I didn't realise it was all about different things.” - End user (20)

Commissioning the service

24. Commissioners feel there is insufficient time and resources to manage providers' contracts.

“Let's suppose there's 178 GP practices. So, every one of those has a set of contracts...Some perform well, some perform poorly...I can't manage that number of contracts on my own. It isn't practical.” – Commissioner

25. Whilst national guidance to support contracts is available, our research suggests there are varying levels of awareness and understanding of this guidance. Continued efforts to improve commissioner and provider awareness

of the national programme standards and best practice guidance would be beneficial.

“It needs to be clear and sort of fully understood by the providers what they're expected to do... We need to know ... what are our aims are, what are actions are expected to do, and how do we actually measure that.” – Commissioner

Recording and sharing NHS Health Check data

26. Recording relevant data can be hindered where multiple invitation methods are used.

HCPs reported that the combination of opportunistic NHS Health Checks (ie, when patients already visiting the general practice are offered and then immediately receive an NHS Health Check) and the delay in time between patients receiving an invitation and attending an NHS Health Check was a barrier to accuracy of reporting relevant data. (21)

27. Different primary care IT systems, as well as the need to preserve patient confidentiality, create a barrier to sharing data, for example, between GP practices and commissioners and community NHS Health Check providers.

“Sharing [data] is an issue - getting access to GPs clinical health data” – Commissioner

“Each individual practice will use what it wants to use. So in a local authority area you might have 4 or 5 systems being used. That is a massive complicating factor. GDPR... is a bit of a barrier...there's a huge amount of fear and anxiety around it, which is wrong. And this has caused some issues with data sharing agreements” – Provider (Head of health services)

28. Some end users have concerns over the protection and use of their data.

“There's data privacy that always worries me... There are too many occasions where things have gone wrong where information has either been leaked or hacked or lost or kept there for too long.” - End user

“[NHS] haven't got the funds ... or the resources, to protect the databases, their IT systems. They're years behind the private, in IT.” - End user

Prioritisation for alpha

The insights from discovery were further synthesised by the team into key areas of opportunity in order to identify where the **alpha** phase of research should focus.

A prioritisation exercise that involved the project team, PHE CVD Prevention and PHE Behavioural Insights team was undertaken to decide which opportunity could be taken forward into the **alpha** phase.

Prioritisation considered the following factors:

- What is the risk of not doing it?
- How much of a benefit would it have for users?
- Is it affordable?
- How difficult would it be - how long would it take?
- Can we measure success?
- Is anyone else doing this?
- Is digital the best way to solve this problem?

The key areas that stood out following prioritisation were:

- a. How might we tailor the support and advice during and after the assessment to an end-user's readiness to change?

Supporting insight:

- End users enter the NHS Health Check programme with different/inaccurate expectations, and at different levels of readiness to change –some are not prepared to recognise an unhealthy behaviour, for example, let alone interpret and act on their results.
 - There is considerable variation in the implementation and delivery of the programme.
 - Reassurance that you're 'doing OK' is valued by people who are healthy. But if the NHS Health Check assessment doesn't identify a problem, we have no way to continue reassuring them over time, spot and encourage them if their risk increases, or recall them sooner than 5 years.
- b. We need to support end users to identify and prioritise what they could change. So how might we help end users and clinicians break up a change made of multiple priorities and risk factors into manageable first steps that they can act on?

Supporting insight:

- End users' priorities don't always match clinicians'. What feels most personally achievable and motivating to end users may not be the highest clinical need but could be the most promising way to get them started as soon as possible. Clinicians need to take direction from end users to support them to make informed choices and enable them to take direct action.

- c. How might we enable providers to deliver a motivational, 'human' experience (during and after the assessment) while minimising the effort of personal follow-ups?

Supporting insight:

- Depending on where an end user lives, they might exit the NHS Health Check assessment without referral or signposting to lifestyle support services, in order to recognise and start a change.

- d. How might we normalise relapse and anticipate it in the way we support end users over the long term?

Supporting insight:

- Even with the best intentions, it's hard for users to maintain a lifestyle behaviour change when faced with inevitable changes in life circumstances (eg. holidays, bereavement, moving to a new house etc).

The prioritised opportunities focussed around the post assessment phase of the check. These were distilled into three critical stages of the NHS Health Check that we could prototype and test in **alpha** phase:

1. Understand results (a + c)
2. Prioritise and agree first step (b + c)
3. Sustain behaviour change and follow up (c + d)

Conclusion

Through this discovery phase 28 insights reflecting end user, provider and/or commissioner perspectives were identified. Mixed methods research was used to ensure we gain an in-depth understanding of users' needs and any challenges they might experience as they engage with the service. This evidence was reviewed and assessed against a number of criteria to identify three areas for prioritisation as part of a digital **alpha**: understanding NHS Health Check results, prioritising and agreeing first steps and sustaining behaviour change and follow-up.

This report describes the current barriers & facilitators faced by end users, providers and commissioners to engage with the NHS Health Check. Further research is required -as part of the **alpha** and **beta** phase- to determine how these can be developed into digital interventions to support improvements for implementation, delivery and impact of the NHS Health Check programme in primary, community and social care settings in England.

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