#### **Supplementary Materials 1: SRQR Checklist**

#### Standards for Reporting Qualitative Research (SRQR): a synthesis of recommendations

All topics and numbers of this checklist are directly cited from Table 1 in: O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. Standards for reporting qualitative research: a synthesis of recommendations. Acad Med. 2014;89(9):1245-1251.

	Торіс	Part of manuscript information can be found	Page numbers*
1	Title	Title	1
2	Abstract	Abstract	2
3	Problem formulation	Introduction	4-6
4	Purpose or research question	Introduction	6
5	Qualitative approach and research paradigm	Methods	9
6	Researcher characteristics and reflexivity	Methods	9
7	Context	Methods	7
8	Sampling strategy	Methods	7
9	Ethical issues pertaining to human subjects	NA	
10	Data collection methods	Methods	7
11	Data collection instruments and technologies	Methods	8
12	Units of study	Results	10-16
13	Data processing	Methods	9
14	Data analysis	Methods	9
15	Techniques to enhance trustworthiness	NA	

16	Synthesis and interpretation	Results	10-16
17	Links to empirical data	Results	10-16
18	Integration with prior work, implications, transferability, and contribution(s) to the field	Discussion	16-19
19	Limitations	Strengths and limitations	19
20	Conflicts of interest	Competing interests	20
21	Funding	Funding	20

\*All page numbers refer to pages in the submitted manuscript file

# **Supplementary Materials 2: Original Project Protocol**

(Submitted as a separate file)

# Supplementary Materials 3 - Interview Schedule for Service Users

# Patient experience of the Southwark NHS Health Check service – interview schedule

Thank you for agreeing to take part in this project. As you'll have read in the information document, we are interested in your experience and views of the new Health Check service in Southwark. So, in this call, I'll ask you some questions about this – it does not matter if you did not complete a Health Check and there are no right or wrong answers, we're just interested in your opinions. I'll record what is said in this call so that it can be typed up later, but any information that could identify you, such as names of people or places, will be removed. If at any time during the call you would like to stop, just let me know, and you do not have to answer any questions that you do not feel comfortable with.

Before we begin, do you have any questions for me?

[Start recorder]

To start, can you tell me if you completed a Health Check, either online or at the GP practice?

[If yes - go to page 2]

[If no]

Can you remember receiving an invitation for a Health Check?

[If yes] Did you receive an text message or letter invitation? How would you prefer to receive an invitation?

What did you think when you received this invitation?

Did you receive any reminders? (Text or letter?) And what did you think of these?

Did you try to book a Health Check? Why/why not?

[If booked but not completed] What stopped you from completing/attending the Health Check?

[If no] The Health Checks aim to identify people who are at higher risk of developing long term health problems so that they can be offered help to lower their risk, for example, support with becoming more physically active or quitting smoking, or being prescribed medication. Is that something that you would be interested in?

How would you like to receive an invitation to a Health Check (text/letter)?

For those who did complete a Health Check]

What made you want a Health Check?

Did you choose the online Health Check or a face-to-face one at your GP practice?

Why did you choose this option?

Tell me about your experience of your Health Check, from booking/logging on to getting the results.

[F2F prompts] Booking appointment – convenient time? Waiting?

Consultation – assessments completed? Rapport with GP/nurse?

Results - in appointment or later? Follow up advice - able to ask

questions?

[DHC prompts] Navigating site – any difficulties? Were the questions easy to answer/understandable?

Did they book a physical assessment? Tell me about this (booking, place, consultation)

Results - how received? Follow-up advice - able to ask questions?

Did your Health Check prompt you to make any changes or look for more information on your health?

[If yes] What did you look into/changes have you tried? (e.g., PA, diet, smoking, medication)

How are you getting on with [the behaviour change]?

Would you recommend that a family member or friend of a similar age to you had a health check if invited?

If yes or no probe why

Finally, is there anything that would make the Health Check service better for you, either in terms of how it was conducted or what happened afterwards?

That's all my questions, is there anything else you would like to add?

Thank them for their time and stop recorder.

# Supplementary Materials 4 - Interview Schedule for HCPs

# HCP experience of the Southwark NHS Health Check service – interview schedule

Thank you for agreeing to take part in this project. As you'll have read in the information document, we are interested in your experience and views of the new Health Check service in Southwark. So, in this call, I'll ask you some questions about these – there are no right or wrong answers, we're just interested in your opinions. I'll record what is said in this call so that it can be typed up later, but any information that could identify you, such as names of people or places, will be removed. If at any time during the call you would like to stop, just let me know, and you do not have to answer any questions that you do not feel comfortable with.

Before we begin, do you have any questions for me?

[Start recorder]

To start, can you tell me how long you have been a practice nurse/healthcare assistant/practice manager?

How much experience would you say you have with conducting Health Checks? (N.B. they started in 2009)

Can you tell me how you conduct the standard face-to-face Health Check appointments?

What preparation, if any, would you do before the appointments?

[*for nurses/HCAs*] How do you deliver advice/information to patients following the assessments? (signposting/leaflets, how long does this take?)

Following the appointment, what extra tasks are involved for you or your colleagues? (e.g., to record results, organise follow-ups)

And now please can you tell me how you have found the addition of the digital Health Checks to the service?

What work is involved for you and your colleagues when patients choose to complete a Health Check online?

Has there been an impact on numbers of patients seen in person for Health Checks?

[*for nurses/HCAs*] How have you found seeing people who have been identified as high risk after they have completed an online Health Check, in comparison to seeing them for the full Health Check?

Do you have all the information you need from the digital results or is extra questioning needed?

What, if anything, do you consider to be the benefits of providing digital as well as face-to-face Health Checks?

And what, if anything, are the risks?

Are there any improvements or changes that you would like to see made to the Health Check service?

Overall, do you think the addition of digital Health Checks to the service is a good idea/should be rolled out further?

Are there any other comments that you would like to make about health checks, in person or face to face?

That's all my questions, is there anything else you would like to add?

Thank them for their time and stop recorder.

Theme

Service user

Service user	Age	
demographics	Gender	
	Ethnicity	
	Health Check type (digital/F2F/none)	
	Education level	
	Employment status	
Invitation and booking	Understanding of the Health Check (awareness, what it is for etc)	
	Invite method (text, letter etc) (and initial response to this, preference)	
	Reminders?	
	Choice of F2F/digital (option?/reasons for choosing)	
	Booking process for F2F (ease, challenges etc)	
	Starting digital Health Check (timing, ease of process etc)	
	Other	
Motivation	Perceived health	
	Understand more about health	
	Previous medical background	
	Personal responsibility	
	Prevention	
	NHS cares (the organisation is looking after me etc)	
	Other	
F2F Health Check	Questions during Health Check	
experience	Person completing Health Check (profession, manner)	
	Physical tests? (yes/no/what)	
	Timing and communication of results	
	Asking questions	

#### Supplementary Materials 5 – Revised Analytical Framework (Service Users)

Sub-themes

Age

	Advice given (services, signposting etc)
	Benefits of F2F Health Check
	Other
DHC experience	Website (understanding/navigation/ease of use etc)
	Benefits (convenience, personality)
	Digital age
	Physical tests (any, how/where these happened etc)
	Barriers/problems (digital technology; doing tests, asking questions, conflicting advice etc)
	Timing and communication of results
	Advice given (referrals, services etc)
	Other
Behaviour change	Changes made (what, why, include services attended)
	Maintenance
	If none, why
	Impact of changes
	Other
General	Recommend Health Check (and why)
	Improvements to Health Check (digital and F2F)
	Preference for digital/standard (why, belief that everything going online etc)
	Other

# Supplementary Materials 6 Revised Analytical Framework (HCPs)

Theme	Sub-themes
Experience	Nurse/role experience (years etc)
	Experience with Health Check previous (training, confidence)
	Other
Conducting F2F Health Checks	Prepare before (and experience/opinions of this)
	Running the health check (general)
	Giving advice (signposting, delivering it, experience of it, time etc)
	Admin after (and experience/opinions of this)
	Other
Digital Health Checks	Understanding of them (awareness etc)
	Additional work (pre, post, follow up?)
	Increase in DHC attendees? (and opinions on this)
	DHC vs standard for high risk people (experience of this, does it work, benefits, negatives etc)
	Benefits of DHC (choice, convenience, workload etc)
	Risks of DHC (honesty, tech issues, miscommunication, results)
	Health Check improvements?
	DHC rollout opinion
	Other

Supplementary Materials 7: Example of the DHC results page-Page 1

# Your results

# Thank you for completing the first part of your NHS Health Check.

Please find below your personalised results. Take a look at the follow-up pages, which are based on your results and health priorities.

#### Overview

In a crowd of 100 people with the same risk factors as you, 12 are likely to have a heart attack or stroke within the next 10 years. In other words, you have an 12% chance of having a heart attack or stroke within the next 10 years.

You have a medium risk of developing heart disease in the next 10 years. Please contact your GP clinic for a non-urgent discussion or your results and to access additional support. Your risk of getting heart and circulatory disease will increase as you get older . Your current lifestyle choices put you at high risk of developing conditions such as heart disease or cancer during your lifetime. Your risk of getting heart disease will increase as you get older, so the actions you take now to live a healthier lifestyle will impact your future health.

This score was calculated using estimated data where you were unable to provide your blood pressure and cholesterol levels. You could make this score more accurate for you personally by completing the tests we

### Supplementary Materials: Example of the DHC results page – Page 2

# Your heart is comparable to the heart of a 70 year old

You are 61 years old and your risk of getting heart disease is similar to that of a 70 year old.

Your heart age is very high in comparison to your actual age. This means that as you get older your risk for developing heart and circulatory diseases will be significantly higher for you than other people your age who have a healthier lifestyle. You will also have a higher risk of developing some cancers and dementia. You can reduce your risk by improving your lifestyle. In the follow up section, we will direct you to the relevant information and services.

If you lower your risk factors by making improvements to your lifestyle, your heart could feel 9 years younger.

This score was calculated using estimated data where you were unable to provide your blood pressure and cholesterol levels. You could make this score more accurate for you personally by completing the tests we request in the follow up sections of this tool.

► <u>How is heart age calculated?</u>

#### You are at low risk of developing Type 2 diabetes

In a crowd of 100 people with the same risk factors as you, 5 are likely to develop Type 2 diabetes within the next 10 years.

In other words, you have an 5% chance of developing Type 2 diabetes within the next 10 years.

Everyone has some level of risk for developing Type 2 diabetes. Some risk factors cannot be controlled such as your age or ethnicity. Other risk factors, such as your weight and physical activity levels, can be changed which is why maintaining a healthy lifestyle is important.

# Supplementary Materials: Example of the DHC results page- Page 3

# Your results in detail

#### **Blood pressure**

You don't know your blood pressure. Please have it checked. It is important that you have your blood pressure checked as you may be at an increased risk of developing heart and circulatory disease. We will direct you to a way of getting this blood test done.

#### Cholesterol

You don't know your cholesterol levels. Please have it checked. It is important that you have your cholesterol levels checked as you may be at an increased risk of developing heart and circulatory disease. We will direct you to a way of getting this blood test done.

### Smoking

Your results show that you currently smoke. Please consider the stop smoking services we offer in the follow-up section.

## **Blood sugar**

You do not know your blood sugar level.

## Alcohol

Your results show the amount of alcohol you drink is at a low-risk level. It's important to keep your alcohol consumption as low as possible.

#### Weight

Your results show you are a healthy weight.

## Diabetes

Your results show you are at a low risk of developing diabetes

## **Physical activity**

Your results show that you are physically active. Well done!

#### UNKNOWN

UNKNOWN

# LOW RISK

UNKNOWN

**HIGH RISK** 

#### LOW RISK

#### LOW RISK

# LOW RISK