



Public Health  
England

# **NHS Health Check National Programme Update**

**1<sup>st</sup> March 2016**

**Jamie Waterall**  
**NHS Health Check National Lead**  
**Public Health England**



# How many people like Ron have undiagnosed hypertension in England?

NHS Health Check?

"IT SAVED MY LIFE."

Ron, Birches Head

Find out more at [stroke.gov.uk/healthcheck](http://stroke.gov.uk/healthcheck)

**5 Million**

NHS HEALTH CHECK

Helping to prevent  
diabetes  
heart disease  
kidney disease  
stroke & dementia

City of Stoke-on-Trent

The National Cardiovascular Intelligence Network. Cardiovascular disease key facts. Fact Sheet No 7. London: Public Health England, 2013.

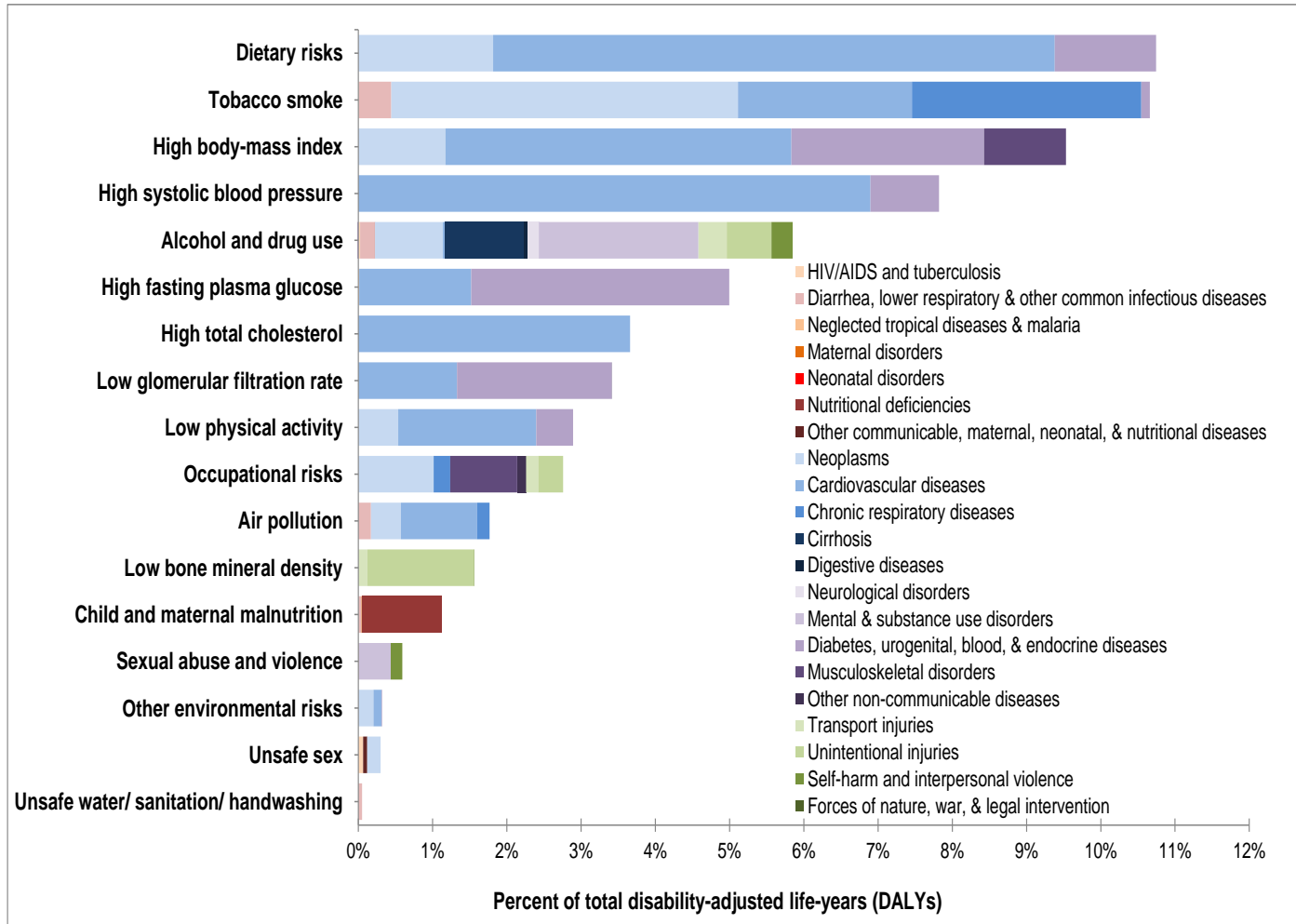


# Programme Aim

The NHS Health Check programme offers a fantastic opportunity to help people to live longer, healthier lives. It aims to improve health and wellbeing of adults aged 40-74 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.

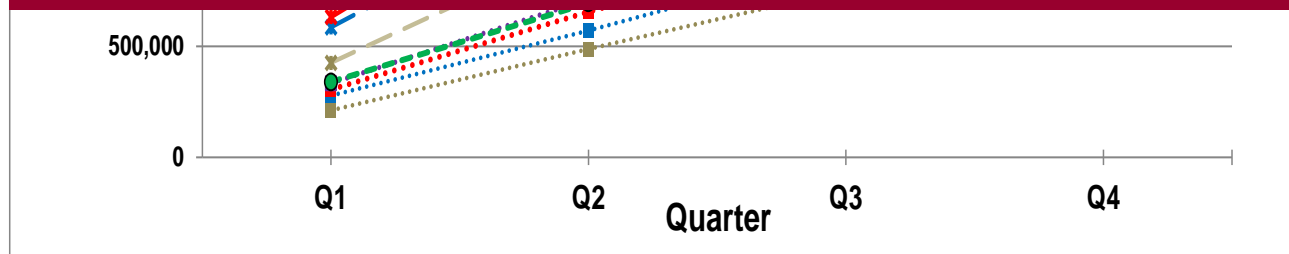


# Burden of disease attributable to leading risk factors for both sexes in 2013, expressed as a percentage of England disability-adjusted life-years



## Number of eligible persons offered / taking up NHS Health Check

- We are now in the second half of the 5 years cycle (Q3, 2015-16)
- Nationally, **15,579,278** persons are eligible for an NHS Health Check between 2013 and 2018
- Cumulatively, since Q1 2013-14, a total of **8,053,495** persons (**51.7%**) have been offered an NHS Health Check and **3,887,937** (**25.0%**) have received an NHS Health Check. This means that in the eleven quarters between April 2013 and December 2015, **48.3%** of people offered an NHS Health Check have received one





Public Health  
England

## % of NHS Health Check appointments received by the eligible population

2013-2018, cumulative  
figures, 11 quarters

Compare  
with  
England

Better

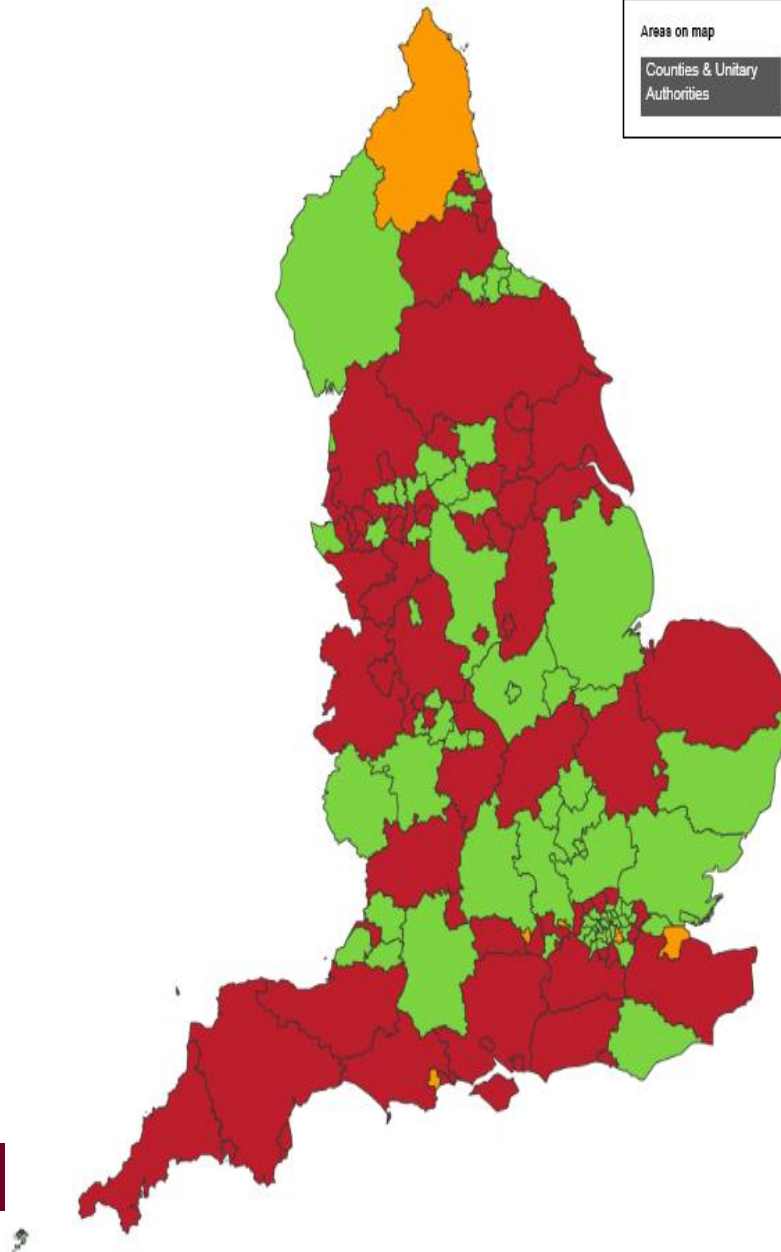
Similar

Worse

<http://healthierlives.phe.org.uk>

Areas on map

Counties & Unitary  
Authorities





# National Evaluations

Downloaded from <http://open.bmj.com/> on February 28, 2016 - Published by [group.bmj.com](http://group.bmj.com/)

Open Access

Research

## BMJ Open The NHS Health Check in England: an evaluation of the first 4 years

John Robson,<sup>1</sup> Isabel Dostal,<sup>1</sup> Aziz Sheikh,<sup>2</sup> Sandra Eldridge,<sup>1</sup> Vichithranie Madurasinghe,<sup>1</sup> Chris Griffiths,<sup>1</sup> Carol Coupland,<sup>3</sup> Julia Hippisley-Cox<sup>4</sup>

To cite: Robson J, Dostal I, Sheikh A, et al. The NHS Health Check in England: an evaluation of the first 4 years. *BMJ Open* 2016;10:e00840. doi:10.1136/bmjopen-2015-00840

► Prepublication history and additional material is available. To view please visit the journal (<http://dx.doi.org/10.1136/bmjopen-2015-00840>).

Received 20 May 2015  
Revised 1 September 2015  
Accepted 29 September 2015



<sup>1</sup>Centre for Primary Care and Public Health, Queen Mary University of London, London, UK  
<sup>2</sup>Usher Institute of Population Health Sciences and Informatics, The University of Edinburgh, Edinburgh, UK

**ABSTRACT**  
**Objectives:** To describe implementation of a new national preventive programme to reduce cardiovascular morbidity.  
**Design:** Observational study over 4 years (April 2009–March 2013).

**Setting:** 655 general practices across England from the GPResearch database.  
**Participants:** Eligible adults aged 40–74 years including attendees at a National Health Service (NHS) Health Check.

**Intervention:** NHS Health Check: routine structured cardiovascular check with support for behavioural change and in those at highest risk, treatment of risk factors and newly identified comorbidity.

**Results:** Of 1.68 million people eligible for a NHS Health Check, 214 295 attended in the period 2009–12. Attendance quadrupled as the programme progressed: 5.8% in 2010 to 30.1% in 2012.

Attendance was relatively higher among older people, of whom 19.6% of those eligible at age 60–74 years attended and 9.0% at age 40–59 years. Attendance by population groups at higher cardiovascular disease (CVD) risk, such as the more socially disadvantaged 14.9%, was higher than that of the more affluent 12.3%. Among attendees 7844 new cases of hypertension (381000 Checks), 1934 new cases of type 2 diabetes (91000 Checks) and 807 new cases of chronic kidney disease (41000 Checks) were identified. Of the 27 824 people found to be at high CVD risk (20% or more 10-year risk) when attending an NHS Health Check, 19.3% (5325) were newly prescribed statins and 8.8% (2438) were newly prescribed antihypertensive therapy.

**Conclusions:** NHS Health Check coverage was lower than expected but showed year-on-year improvement. Newly identified comorbidities were an important feature of the NHS Health Checks. Statin treatment at national scale for 1 in 5 attendees at highest CVD risk is likely to have contributed to important reductions in their CVD events.

### Strengths and limitations of this study

- This is the first national study describing implementation of the new National Health Service (NHS) Health Check programme 2009–2012.
- It is based on a large representative sample of 655 general practices in England with 1.68 million people aged 40–74 years eligible for an NHS Health Check of whom 214 295 attended.
- Of those eligible, 70% had ethnic group recorded and 99% socioeconomic group recorded. In attendees, recording of ethnic group and major risk factors was over 90%.
- Non-attendees were younger, more likely to smoke and recording of cardiovascular risk was less complete.
- There is no information available about attendance for support for behavioural change following general practitioner (GP) referral.

the first of its kind, aiming to provide a routine structured clinical assessment and management for adults aged 40–74 years without pre-existing diabetes or CVD. The NHS Health Check includes review of CVD risks, behavioural change support and treatment of newly identified risk factors or comorbidity through integration with routine clinical provision in general practice. We describe an evaluation of the first 4 years of this national programme.

The NHS Health Check is a 5-year rolling programme which targets one-fifth of the eligible population each year, aiming to invite 3 million people at an annual cost of £165 million.<sup>1,2</sup> The Department of Health report that 2.4 million NHS Health Checks were undertaken in the 2 years (2011–2012).<sup>3</sup> Nationally, uptake is reported at around 50% of the eligible target population with consid-



## Coverage of a national cardiovascular risk assessment and management programme (NHS Health Check): Retrospective database study

Klara Chu-Mei Chang<sup>\*,†</sup>, Michael Soljak<sup>\*,†</sup>, John Tayu Lee<sup>\*,†</sup>, Maria Worringer<sup>\*,†</sup>, Desmond Johnston<sup>†</sup>, Kamlesh Khunti<sup>†</sup>, Azeem Majeed<sup>†</sup>, Christopher Millett<sup>†</sup>

<sup>\*</sup> Department of Primary Care and Public Health, Imperial College London, W6 8RF London, UK  
<sup>†</sup> Division of Clinical, Behavioural and Metabolic, Department of Medicine, Imperial College London, London W2 1PG, UK  
<sup>‡</sup> Diabetes Research Group, Glasgow Diabetes Centre, University of Glasgow, Glasgow G2 4PW, UK

### ARTICLE INFO

Available online 4 June 2015

**Keywords:**  
Cardiovascular disease  
Primary prevention  
Risk assessment  
Screening

### ABSTRACT

**Objective:** To determine coverage of a NHS Health Check, a national cardiovascular risk assessment programme in England, in the first four years after implementation, and to examine prevalence of high cardiovascular disease (CVD) risk and uptake of statins in high risk patients.

**Method:** Study sample was 953 711 patients in England aged 40–74 years continuously registered with 500 practices in the Clinical Practice Research Datalink between April 2009 and March 2013. Multilevel logistic regression models were used to assess predictors of Health Check attendance; elevated CVD risk factors and statin prescribing, among attendees.

**Results:** Programme coverage was 21.4% over four years, with large variation between practices (0%–72.7%) and regions (0.4%–35.7%). Coverage was higher in older patients (adjusted odds ratio 2.08, 95% confidence interval 2.40–3.31) in patients with a family history of premature coronary artery disease (2.37, 2.22–2.53), but lower in Black Africans (0.75, 0.61–0.92) and Chinese (0.68, 0.47–0.96) compared with White British. Coverage was similar in patients living in deprived and affluent areas. Prevalence of high CVD risk (≥20% at 10 years) among attendees was 45%. One-third (33.0%) of attendees at high risk were prescribed a statin after Health Check.

**Conclusions:** Coverage of the programme and statin prescribing in high risk individuals was low. Coverage was similar in deprived and affluent groups but lower in some ethnic minority groups, possibly widening inequalities. These findings raise a question about whether recommendations by WHO to develop CVD risk assessment programmes internationally will deliver anticipated health benefits.

© 2015 Published by Elsevier Inc.

### Introduction

The burden of cardiovascular disease (CVD) type 2 diabetes mellitus and chronic kidney disease is substantial in developed countries and rising rapidly in developing countries (Murray et al., 2013). Despite downward secular trends, CVD remains the largest single cause of mortality in England, accounting for around 34% of deaths annually (Townsend et al., 2012). Cardiovascular disease also contributes significantly to health inequalities, with prevalence of risk factors, established disease, adverse health outcomes and premature death being disproportionately high in people in lower socio-economic classes and ethnic minority groups (Townsend et al., 2012).

Many countries have begun piloting cardiovascular risk assessment programmes with CVD prevention strategies, for instance the Million Hearts initiative in the United States and More Heart and

Diabetes Checks in New Zealand (Frieden and Renwick, 2011; Ministry of Health). Recently the World Health Organization published a global action plan for 2013–2020 (World Health Organization, 2013), with targets to achieve 25% relative reduction in premature mortality from non-communicable diseases including CVD and diabetes; and at least 50% of eligible people (aged 40 or above with a 10-year CVD risk ≥ 20%) to receive drug therapy and counselling by 2025.

The National Health Service (NHS) Health Check programme implemented by the Department of Health in April 2009, invites all people in England aged 40–74 years, who are not currently on a vascular disease register, for a CVD risk assessment every five years. Attendees are communicated their CVD risk in a Health Check and provided with tailored risk management strategies and healthy lifestyle advice.

Evaluation of the NHS Health Check programme is facilitated by the very high use of electronic health records in English primary care, though current evidence mostly comes from local studies with short follow up of patient outcomes. Therefore the main aim of this study was to evaluate coverage of the NHS Health Check programme

\* Corresponding author.  
Email address: [chu-mei.chang@imperial.ac.uk](mailto:chu-mei.chang@imperial.ac.uk) (K.C.-M. Chang).

<http://dx.doi.org/10.1136/bmjopen-2015-00840>  
0959-5456/2015 Published by Elsevier Inc.



# NHS Health Check Stocktake

- 2012/2013 stocktake demonstrated that there were concerns about a perceived lack of national support
- Our 2015/2016 qualitative research demonstrates that we have in large responded to this gap
- From our 2015/2016 qualitative research review we have also learned about the on-going challenges faced by local commissioners

We now have clear suggestions about how to focus PHE's support and activity going forward

- PHE needs to continue to provide practical, accessible and up-to-date support
- Evidence remains crucial for 'proving the case' for Health Checks nationally and locally
- PHE needs to support LAs to consider different commissioning approaches, to respond to reduced local resources





# Achievements 2015/16

- Best Practice Guidance updated and merged with the data guidance - published February 2016
- Launched a systematic approach to raising standards (StARS), the approach draws on national guidance and is based on a self-assessment framework that enables you to benchmark current activity across the complete NHS Health Check pathway
- 7 new case studies added to the NHS Health Check website
- 21 webinars held covering variety of topics
- 5 editions of the NHS Health Check e-bulletin published
- 14 training workshops delivered across the country in partnership with the Royal Society for Public Health
- NHS Health Check competence learner workbook supporting materials and training resources published
- New Dementia leaflet launched



# Building and Nurturing Primary Care Leadership

- Primary Care CVD Leadership Forum established
- Engagement with RCGP – 1 year CVD spotlight programme
- Priorities – Hypertension, AF, Cholesterol, Diabetes risk
- Resources including CVD Intelligence Packs and Key Messages
- Next phase: local leadership programme with BHF
- RightCare focus on unwarranted variation in primary care
- CQC guidance for inspectors on NHS Health Check



# Behavioural Insights Projects

**Stoke on Trent RCT:**  
 1 – invitation letter frame based on risk  
 2 – traditional invite  
 2 – telephone/ verbal invite;



**Salford:** The effectiveness of video messages on screens in GP waiting rooms

**Northamptonshire:**  
 Myth busting letter vs costs to NHS letter

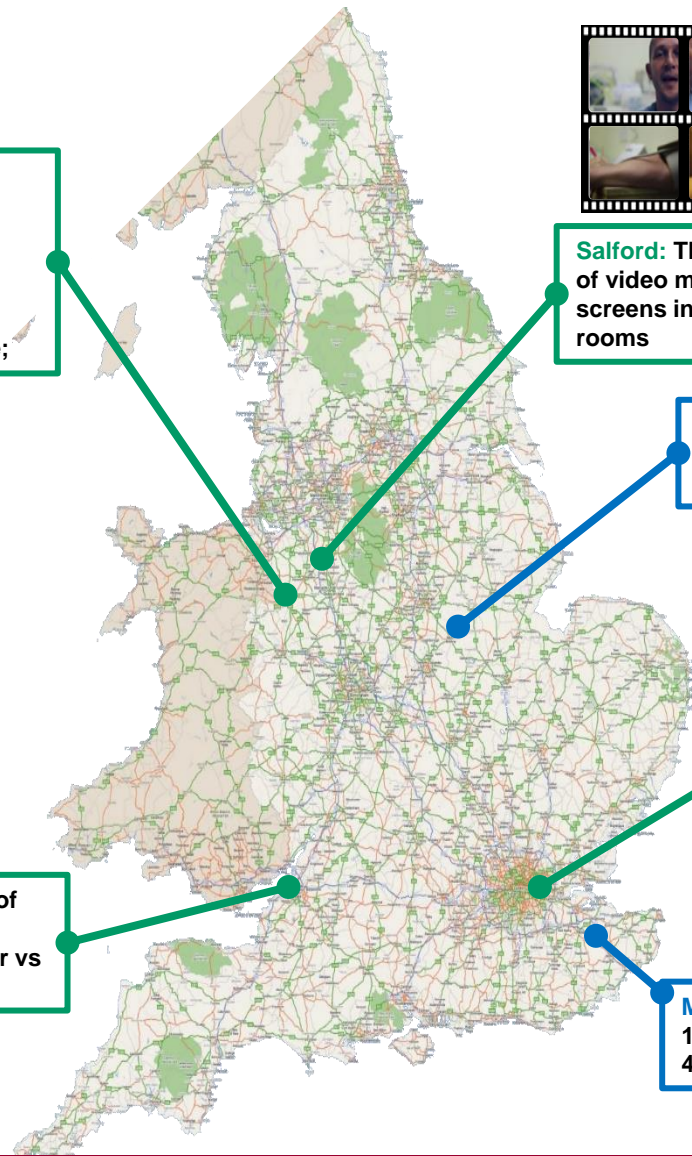
**Southwark (letters / texts):**  
 12% absolute increase in uptake with best letter and both primer and reminder

**Southwark (prompts):**  
 Quasi-experiment of electronic prompts for staff to offer NHS HC

**Medway letters:**  
 13% relative increase in uptake  
 4% net increase in uptake

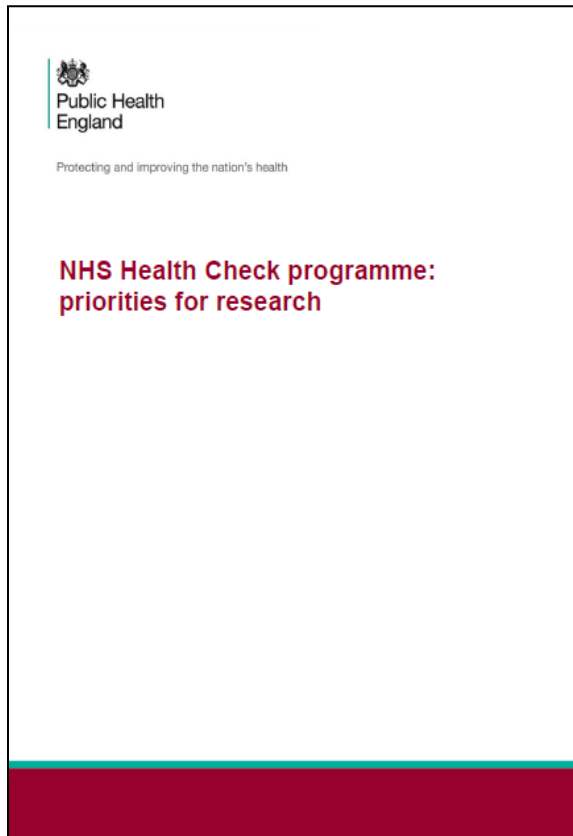


**Bristol:** Quasi-experiment of telephone outreach by a community in-reach worker vs the traditional letter invite





# Expert Scientific & Clinical Advisory Panel



- Review of emerging evidence
- Programme content review process
- Encouraging a culture of research and evaluation
  - HTA call for research
  - Exploration of further modelling
- Development of a national data set



# My Heart Age

- Over 2 million views & **830,000** completed the heart age assessment
- 60%** of users were **men**, a high proportion compared to the proportion of men (40%) using other online NHS Choices self-assessment tools
- 56%** of users were aged <50
- Representative of England population profile for ethnicity and deprivation
- Many users did not know their **numbers**: only **22%** knew their cholesterol level, **51%** knew their blood pressure
- 35%** of users had a **heart age** greater than their **chronological age** by at least 5 years

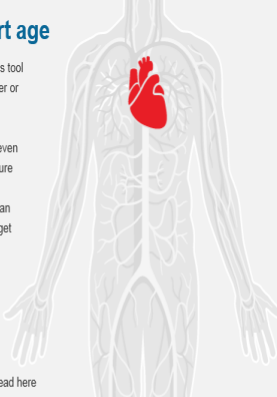
**Check your heart age**

How healthy is your heart? Use this tool to find out if your heart age is higher or lower than your actual age.

Anyone over 30 can use the tool, even if you don't know your blood pressure and cholesterol. However, without these numbers, your result will be an estimate and we recommend you get tested to get an accurate result.

[Start](#)

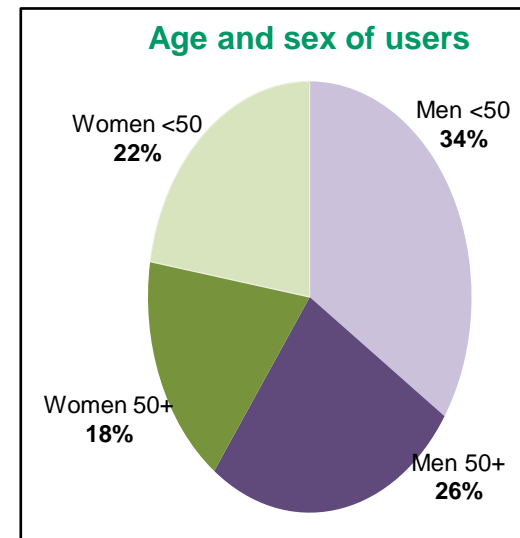
Full [terms and conditions](#) can be read here



Public Health England logo, British Heart Foundation logo, JBS3 logo (Joint British Societies for the prevention of cardiovascular disease)

This tool is a collaboration between NHS Choices, Public Health England and the British Heart Foundation. [More information about partners](#). Full [credits](#) can be read here

[www.nhs.uk/myheartage](http://www.nhs.uk/myheartage)





Public Health  
England

# Thank you

**Working together for the public's health**

Jamie Waterall  
NHS Health Check National Lead

e-mail: [jamie.waterall@phe.gov.uk](mailto:jamie.waterall@phe.gov.uk)  
website: [www.healthcheck.nhs.uk](http://www.healthcheck.nhs.uk)  
Twitter: [@JamieWaterall](https://twitter.com/JamieWaterall)