



Public Health  
England

Protecting and improving the nation's health

# **NHS Health Check programme: literature review**

## About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. It does this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. PHE is an operationally autonomous executive agency of the Department of Health.

Public Health England  
133-155 Waterloo Road  
Wellington House  
London SE1 8UG  
Tel: 020 7654 8000  
[www.gov.uk/phe](http://www.gov.uk/phe)  
Twitter: @PHE\_uk  
Facebook: [www.facebook.com/PublicHealthEngland](https://www.facebook.com/PublicHealthEngland)

© Crown copyright 2014

You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v2.0. To view this licence, visit OGL or email [psi@nationalarchives.gsi.gov.uk](mailto:psi@nationalarchives.gsi.gov.uk). Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned. Any enquiries regarding this publication should be sent to [insert email address].

Published November 2014

PHE publications gateway number: 2014517

# Contents

<b>About Public Health England</b>	<b>2</b>
<b>Contents</b>	<b>3</b>
<b>Acknowledgements</b>	<b>3</b>
<b>A review of NHS Health Check literature</b>	<b>4</b>
<b>References on the NHS Health Check Programme</b>	<b>8</b>
<b>References relating to general health checks</b>	<b>23</b>

# Acknowledgements

This literature review has been produced by the PHE Knowledge and Library Service with the support of members from the NHS Health Check Expert Scientific and Clinical Advisory Panel

# A review of NHS Health Check literature

## 1. Introduction

The NHS Health Check is a National programme that 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.

A key part of the programme’s governance structure is the expert scientific and clinical advisory group (ESCAP). The ESCAP provides an expert forum for the NHS Health Check policy, acting in an advisory capacity to support successful roll-out, maintenance, evaluation and continued improvement based on emerging and best evidence. In its first meeting ESCAP agreed to progress an initial, broad literature review to identify evidence relevant to the NHS Health Check programme. The methods and findings of that review are set out here.

## 2. Method

Ovid Medline, Embase, Ovid Health Management Information Consortium (HMIC), Cumulative Index of Nursing and Allied Health Literature (CINAHL), Index to Theses, NHS Evidence and Google Scholar were searched for references relevant to the NHS Health Check programme and general health checks. The initial search identified references from between January 1996 and January 2014. The results were updated using the same strategies to identify further references in May, July and October 2014.

Table 1. Search strategy

Database	Search strategy
Ovid Medline and Embase	#1 nhs and health check* #2 national health service and health check* #3 health check program* #4 uk and health check* #5 united kingdom and health check* #6 england and health check* #7 universal health check* #8 general health check* #9 preventive health check* #10 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9
Ovid HMIC	1 "health check*".af. 2 health checks/

3 1 or 2  
4 limit 3 to yr="2014"

CINAHL (nhs and health check\*) OR (national health service and health check\*) OR (health check\* program\*) OR (uk and health check\*) OR (united kingdom and health check) OR (england and health check\*) OR (universal health check\*) OR (general health check\*) OR (preventive health check\*)

Index to Theses *health check\**

Citations abstracts were then read in order to determine whether or not they were relevant. Those citations considered relevant were categorised using a draft schema for Publication/Resource Types, and are listed in section 4. Categorisation has been based on information provided by authors or indexers and has not been independently verified. No appraisal of individual resources has been undertaken. A conclusion or key statement is provided, as well as a link to the abstract or full text, if available. If the full text of an article is not freely available online, it may be available via the PHE Knowledge & Library Service or [OpenAthens](#).

### 3. Results

The number of references identified in the first search are shown in table 2. In addition, searching the phrase “nhs health check\*” on NHS Evidence and Google Scholar (date range: 2004-2014) returned 294 and 693 hits respectively.

Table 2. References published between January 1996 and 2014, by database

Database (time period)	No. of hits	Exclusive
Medline	296	296
Embase	446	182
HMIC	513	402
CINAHL	319	231
Index to Theses	16	16
Total		1127

The number of references identified in the second search, those published between January and April 2014, are summarised in table 3. Searching the phrase “nhs health check\*” on NHS Evidence and Google Scholar (date range: 2004-2014) returned a further 23 hits from each source.

Table 3. Articles published between January and April 2014, by database

<b>Database</b>	<b>No. of hits</b>	<b>Exclusive</b>
Medline	17	17
Embase	10	3
HMIC	3	2
CINAHL	9	7
Index to Theses	20	20
Total		49

From these 1176 results (1127 plus 49), a total of 69 citations were identified as being relevant. Of the 69 references published between 1 January 2004 and 30 April 2014 43 are on the NHS Health Check programme and 26 on general health checks.

The number of references identified in the third search, those published between May and July 2014 are summarised in table 4. Searching the phrase “nhs health check\*” on NHS Evidence and Google Scholar returned 124 and 108 hits respectively.

Table 4. References published between May and July 2014, by database

<b>Database</b>	<b>No. of hits</b>	<b>Exclusive</b>
Medline	4	4
Embase	27	23
HMIC	7	5
CINAHL	9	7
Index to Theses	0	0
Total		39

From these results, a total of 10 references were identified as being relevant to the NHS Health Check programme and 4 relevant to general health checks.

The number of references identified in the fourth search, those published between July and October 2014 are summarised in table 5. Searching the phrase “nhs health check\*” on NHS Evidence and Google Scholar returned a 169 and 140 hits respectively.

Table 5. References published between July and October 2014, by database

<b>Database</b>	<b>No. of hits</b>	<b>Exclusive</b>
Medline	3	3
Embase	15	13
HMIC	3	3
CINAHL	7	7
Index to Theses	0	0
Total		26

From these results, a total of nine references were identified as being relevant to the NHS Health Check programme and seven relevant to general health checks.

In total, 99 references were identified through this search process, of those, 62 are relevant to the NHS Health Check programme and 37 to general health checks.

# References on the NHS Health Check Programme

## Guidance

National Institute for Health and Clinical Excellence (2014). *Encouraging people to have NHS Health Checks and supporting them to reduce risk factors*. NICE local government briefing, 26 February 2014.

*“The guidance signposted in this document describes ways of identifying risk and detecting early disease. It is based on effectiveness and cost-effectiveness evidence that is specific to the guidance topic. NICE guidance and the NHS Health Checks Programme overlap because some of the same risks are being assessed. However, it is important to remember that the evidence that was examined for NICE guidance was about specific topics or conditions, not about the NHS Health Check programme”*

View [briefing](#)

JBS3 Board (2014). *Joint British Societies’ consensus recommendations for the prevention of cardiovascular disease (JBS3)*. Heart 100:ii1-ii67

*“The principles of JBS3 and the widespread use of the JBS3 risk calculator will support the CVD Outcomes Strategy and the NHS Health Check programme in England which invites adults from 40 to 74 years for CVD risk factor assessment”* ii2

View [full text](#)

## Reviews

Cooper AM and Dugdill L (2014). *Evidence of improved uptake of health checks: Rapid review*. School of Health Sciences, University of Salford, UK. (Unpublished, but full text available online).

*“In conclusion, there is limited evidence of the demographic and health factors that impact on NHS Health Check uptake: with older age; higher CVD risk; non-smoker; and female being the key predictors. Ethnic minorities have been shown to successfully take up Health Checks in areas where there are sufficient GPs of ethnic concordance. From a systems perspective those GP practices that are most successful at attracting people to take up the Health Check were small and more research is required to fully understand the reasons behind this; but it is likely to be related to the quality and continuity of care the patient may be receiving in these smaller practices, which leads to higher patient satisfaction and compliance with the screening invitation. Alternative Health Check provision for men such as provision of community based Health Checks can work but may not achieve as high an uptake as GP-based provision”* p22

View [full text](#)

## Critical appraisal

Bazian (2014). *Study probes effect of NHS Health Checks*. Behind the Headlines.



August 1<sup>st</sup>.

**Note:** the study referred to in this appraisal is the Caley M. et al (2014) case control study listed below

*“This study compared GP practices in Warwickshire that implemented NHS Health checks between 2010 and 2013 with those that did not. They looked at whether the checks increased numbers of diagnoses of five chronic conditions: heart disease, high blood pressure, diabetes, chronic kidney disease and heart rhythm abnormality (atrial fibrillation). Changes in the number of cases of these five chronic diseases were very small and there was no significant difference between practices with or without checks. But the study did not recruit a large enough sample to be able to reliably detect differences. The study period was also quite short. Proponents of the NHS Health Check argue any benefits may not be noticeable for a decade. The study has not been able to examine other health benefits that may result from the checks. For example, it could be the case some people who attend a health check receive lifestyle advice that could help prevent the future development of chronic disease”*

View [full text](#).

### Randomised controlled trials

Cochrane T et al. (2012). *NHS health checks through general practice: randomised trial of population cardiovascular risk reduction*. BMC public health, 2012. **12**: p. 944.

*“Introduction of the NHS Health Check service in Stoke on Trent led to significant reductions in estimated population cardiovascular disease risk and associated individual risk factors. There was no further reduction in risk measures from the additional lifestyle support package offered to patients. Uptake of the service was lower than anticipated and this may have implications for the overall effectiveness (and cost-effectiveness) of this national policy initiative”* p9-10

View [full text](#)

### Cohort studies

Caley M et al (2014). *The impact of NHS health checks on the prevalence of disease in general practices: A controlled study*. British Journal of General Practice, **64** (625): p. e516-e521.

*“This novel study was unable to demonstrate any difference in the changes to the prevalence of diabetes, CHD, hypertension, CKD, and AF at a local level in practices offering NHS Health Checks when compared with practices offering usual medical care. However, further research with a larger sample is required to definitively answer this question”* e521

Forster A, Dodhia H, Booth H et al (2014). *Estimating the yield of NHS Health Checks in England: a population-based cohort study*. Forster A, Dodhia H, Booth H et al (2014). J Public Health (2014) doi:10.1093/pubmed/fdu079. First published online October 17, 2014.

*“We used a cohort study design, using a large sample with patient-level data, to estimate the yield of NHS Health Checks in terms of untreated risk factors and to evaluate the impact of interventions. The findings suggest that the NHS*

*Health Check programme is identifying CVD risk factors in a large proportion of the previously presumed healthy and untreated 40- to 74-year-old population. Statins and antihypertensive drugs were prescribed to a small proportion of patients at higher CVD risk subsequent to the check, and around 10% of smokers were prescribed nicotine replacement/addiction therapy. At least 60% of patients with a known CVD risk score received weight, diet or exercise advice/referrals, and among smokers, over 60% received smoking cessation advice/referrals. There was evidence of a small reduction in CVD risk factors 15 months after the health check” p5*

View [abstract](#)

View [abstract](#)

Artac, M., et al. (2013). *Effectiveness of a national cardiovascular disease risk assessment program (NHS Health Check): Results after one year*. Preventive Medicine, 2013. **57**(2): p. 129-134

*“The introduction of NHS Health Check was associated with significant but modest reductions in CVD risk among screened high-risk individuals. Further cost-effectiveness analysis and work accounting for uptake is required to assess whether the program can make significant changes to population health” taken from abstract.*

View [abstract](#)

### **Cross-sectional studies**

Artac M et al. (2013). *Uptake of the NHS health check programme in an urban setting*. Family Practice, 2013. **30**(4): p. 426-435.

*“Uptake of the Health Check was low in the first year in patients with estimated high risk despite financial incentives to general practices; although this matched the national required rate in second year. Further evaluations for cost and clinical effectiveness of the programme are needed to clarify whether this spending is appropriate, and to assess the impact of financial incentives on programme performance” taken from abstract.*

View [full text](#)

Artac M, Dalton A and Babu H (2013). *Primary care and population factors associated with NHS Health Check coverage: a national cross-sectional study*. J Public Health (Oxf). 2013. **35**(3): p. 431-9.

*“Median coverage of NHS Health Checks was 8.2 per cent, with wide PCT-level variation (range = 0-29.8 per cent). Coverage was significantly higher in PCTs in the most deprived areas compared with the least deprived (P = 0.035), adjusting for covariates. Significant negative associations between coverage and a higher proportion of PCT population aged 40-74 years-the eligible Health Check age group, a larger total population size and higher practice staffing levels were found in the unadjusted analyses” taken from abstract.*

View [full text](#)

Burnett L and Burden AF (2013). *Is uptake of the NHS health checks programme by Indo Asian people less than for other ethnic groups? How many people are found*

*with diabetes?* Diabetic Medicine, 2013. **30**: p. 138. Diabetes UK Professional Conference, March 2013, Manchester, United Kingdom.

*“We examined uptake and outcome of screening in our modified version of the NHS health checks, whereby all people above the age of 40 without vascular disease are offered screening for diabetes with a laboratory HbA1c, through either their GP or an alternative provider. The number found to have diabetes was 764 (8.7%) of the IA population compared with 334 (4%) of Whites, Blacks and other peoples.....When screening is delivered by primary care or an alternative provider using NHS premises, uptake by the IA person is not worse than for other ethnic groups”* taken from abstract.

No freely available abstract or full text

Cochrane T et al. (2013). *Cross-sectional review of the response and treatment uptake from the NHS Health Checks programme in Stoke on Trent.* Journal of Public Health (United Kingdom), 2013. **35**(1): p. 92-98.

*“The attendance rate of 43.7% following invitation to a health check was considerably lower than the benchmark of 75%. The lack of public interest and the prevalence of significant comorbidity are challenges to this national policy innovation”* taken from abstract

View [full text](#)

Nicholas JM et al. (2013). *Variations in the organization and delivery of the 'NHS health check' in primary care.* Journal of Public Health (United Kingdom), 2013. **35**(1): p. 85-91

*“There is considerable diversity in general practices' implementation of the NHS Health Check. A formal quality assurance process may be required in order to optimize the implementation of the NHS cardiovascular risk assessment programme”* taken from abstract

View [full text](#)

Dalton ARH et al. (2011). *Implementation of the NHS Health Checks programme: Baseline assessment of risk factor recording in an urban culturally diverse setting.* Family Practice, 2011. **28**(1): p. 34-40.

*“Recording of risk factors for CVD has improved considerably in UK primary care among patients with established chronic diseases. However, there remain considerable gaps in risk factor recording required for the NHS Health Checks programme among patients without CVD and diabetes and marked variations in recording between practices and between age, gender, ethnic and socio-economic groups”* p39

View [full text](#)

Dalton ARH et al. (2011). *Uptake of the NHS Health Checks programme in a deprived, culturally diverse setting: Cross-sectional study.* Journal of Public Health, 2011. **33**(3): p. 422-429.

*“Uptake of the NHS Health Checks programme was lower in year one (45%)*

*than estimated in Department of Health modelling (75%) and was significantly lower among younger men and smokers but higher among patients from south Asian or mixed ethnic backgrounds, those with diagnosed hypertension and patients registered with smaller practices. The percentage of patients confirmed to be at a high risk of CVD who were prescribed a statin increased 25–45% compared with the Department of Health estimate of 85%” p425-426*  
View [full text](#)

Graley CE, May KF and McCoy DC (2011). *Postcode lotteries in public health-the NHS Health Checks Programme in North West London*. BMC public health, 2011. **11**: p. 738.

*“.....this study identifies a postcode lottery effect related to a national public health programme aimed at reducing the incidence of CVD. Furthermore, it shows this effect within a single geographical sub-sector of London, which may suggest even greater variation at a national level. The study raises questions about the balance between having nationally prescribed standards and guidelines (to prevent undesirable variation in practice or outcomes) and allowing local discretion and flexibility (to allow programmes to be tailored to local factors)” p6*  
View [full text](#)

Kumar J et al. (2011). *Delivering more with less? Making the NHS Health Check work in financially hard times: real time learning from Stoke-on-Trent*. Quality in primary care, 2011. **19**(3): p. 193-199.

*“General practices delivering the NHS Health Check Programme should consider offering this programme to patients through a variety of methods including drop-in clinics and/or using existing consultation/patient information to complete a health check. Maintaining a population approach, whilst reducing the cost of delivery is possible when using the approaches described here” p198*  
View [abstract](#)

### Qualitative research

McNaughton RJ and Shucksmith J (2014). *Reasons for (non)compliance with intervention following identification of ‘high-risk’ status in the NHS Health Check programme*. Public Health (2014) doi:10.1093/pubmed/fdu066. First published online: September 18, 2014.

*“It is important, especially in a time of depleted budgets, to ensure that any intervention is offered to the right people, at the right time and most importantly that those people are accepting of and compliant with the intervention. If this does not happen, the NHSHC programme cannot realize its full potential. This study suggests that attention needs to be paid to a more sophisticated prescription of prophylactic medications to reduce CVD risk and also to better explanation of their virtues and value to patients. The study also suggests the need for provision of more tailored lifestyle advice and access to appropriate services to facilitate sustained changes to factors that could increase CVD risk” p6*

[View full text](#)

Krska J, du Plessis R and Chellaswamy H (2014). *Views and experiences of the NHS Health Check provided by general medical practices: cross-sectional survey in high-risk patients*. Public Health (2014) doi:10.1093/pubmed/fdu054. First published online: August 11, 2014

*“Both attenders of Health Checks in general practice and patients with potentially high CVD risk who have not yet attended had positive attitudes towards the NHS Health Checks programme. Satisfaction with the processes was slightly lower than that found among those receiving Health Checks from community pharmacies in the same region. Such positive views of the programme among attenders are essential in encouraging attendance in others. Recommendation by others (health professionals, friends or family) is the method most likely to encourage people to utilize public health services in pharmacies and could be important for those invited by their medical practice. Implementing this in the form of ‘pass it on’ cards given to Health Check attenders has proved successful elsewhere” p6-7*

[View abstract](#)

Perry C, Thurston M, Alford S et al. (2014). *The NHS health check programme in England: a qualitative study*. Health Promot. Int. (2014) doi: 10.1093/heapro/dau059. First published online: July 29, 2014

*“Analysis revealed that the community-based nature of the checks provide opportunities for people to find out more about their health who might not otherwise have done so. Participants expressed a range of responses to the communication of the risk score, often revealing their confusion about its meaning. Changes in behaviour were identified, which participants connected with having had a check. This study raises questions about where, how and by whom health checks are delivered. Emphasis on health checks reflects the dominant individualist ideology, but this study also suggests that the process provides opportunities to enable and empower individuals, albeit in small ways” taken from abstract*

[View abstract](#)

Burgess C, Wright AJ, Forster AS et al (2014). *Influences on individuals' decisions to take up the offer of a health check: a qualitative study*. Health Expectations (article first published online: 3 June 2014).

*“Emphasizing the benefits of prevention and early detection of cardiovascular conditions might encourage attendance in those who are reluctant to burden the public health-care systems. Increasing the accessibility and flexibility of the service design by expanding the availability of ‘drop-in’ health checks at community venues and at times outside standard working hours could make access easier for some people.....Increased availability of pharmacy-delivered health checks may also overcome the administrative barriers to*

*obtaining an appointment at general practices” p10*

View [abstract](#)

Chipchase L, Waterall J, Hill P (2013). *Understanding how the NHS Health Check works in practice*. Practice Nursing, Vol. 24, Iss. 1, 09 Jan 2013, pp 24 – 29

*“The NHS Health Check is not being perceived by participants as a communication of risk of CVD, contrary to the key aim of this programme”*  
taken from abstract.

View [abstract](#)

Honey S, Bryant L, Murray J, Hill K and House A. (2013). *Differences in the perceived role of the healthcare provider in delivering vascular health checks: a Q methodology study*. BMC Family Practice 2013, **14**:172.

*“Previous evidence suggests that support for patient lifestyle change could help to reduce health inequalities and that the attitudes of healthcare professionals can influence the way in which that support is given. While our findings also suggest that healthcare professionals have views that are likely to influence how they interact with patients, we cannot draw firm conclusions on how they contribute to health inequalities”* p13

View [full text](#)

Krska J, Taylor J and Du Plessis R (2013). *Views and experiences of the NHS Health Check provided in pharmacies and medical practices*. International Journal of Pharmacy Practice, 2013. **21**: p. 16.

*“The aims of this study were (a) to compare views of these two groups with views of patients in the same PCT invited by general practices for the Check and (b) to compare experiences of the Check provided by pharmacies and general practices.....results suggest that NHS Health Checks provided by pharmacies are at least as acceptable as those offered in general practice and can be more so. Overall only one third of the 986 people surveyed felt that the Check should only be provided by doctors and practices”* taken from abstract

No freely available abstract or full text

Loo RL et al. (2011). *The NHS Health Check: The views of community pharmacists*. International Journal of Pharmacy Practice, 2011. **19**. Conference abstract. Royal Pharmaceutical Society Conference 2011 London United Kingdom.

*“The aims of this study were to derive information concerning community pharmacists' activities and their attitudes towards the provision of the NHS Health Check.....The three most commonly offered services were all related to the risk management i.e. offered pharmacological intervention (n = 395, 89.8%), communicated CVD risk (n = 387, 87.8%) and offered advice on weight management (n = 378, 85.7%). The three least commonly offered services were all related to risk assessment i.e. the measurement of cholesterol (n = 92, 20.9%), blood glucose (n = 50, 11.3%) and waist*

*circumference (n = 50, 11.3%). The three most important perceived barriers for providing risk assessment or risk management were lack of time, lack of staff and lack of reimbursement (>55%)” taken from abstract*  
No freely available abstract or full text

McNaughton J, Oswald TA and Shucksmith S (2011). *Making a success of providing NHS Health Checks in community pharmacies across the Tees Valley : a qualitative study*. BMC Health Services Research, 2011. **11**: p. 222.

*“Delivering NHS health checks through community pharmacies can be a complex process, requiring meticulous planning, and may incur higher than expected costs. Findings from our evaluation provide insight into possible barriers to setting up services in pharmacies which may help other commissioning bodies when considering community pharmacy as a location for primary prevention interventions in future” taken from abstract*  
View [full text](#)

Crabtree V, Hall J and Gandecha M (2010). *NHS health checks: The views of community pharmacists and support staff*. International Journal of Pharmacy Practice, 2010. **18**: p. 35-36. Conference abstract. Health Services Research and Pharmacy Practice Conference 2010, Manchester, United Kingdom.

*“Cardiovascular disease is a condition that both pharmacy staff and the public are aware of. This may explain why the pharmacy staffs were so keen to be involved in the pilot, and why patients wanted to use the service. This is promising considering the national roll out of health checks; however, other services concerning less understood issues may require educational support for pharmacy staff to gain similar levels of enthusiasm, and publicity campaigns to raise public awareness” taken from abstract*  
No freely available abstract or full text

Strutt E (2011) *Patient-centred care: Patients’ experiences of and responses to the National Health Service (NHS) Health Check programme in general practice*. Masters thesis, Durham University.

*“The current format of an NHS Health Check does not adapt well to patients’ needs and preferences as individuals and the particular health measures and health outcomes which they think are most important. Improved patient-centred provision of NHS Health Checks may help to improve patient satisfaction” p1*  
View [full text thesis](#)

## **Modelling studies**

Dalton ARH et al. (2013). *Prevalence of cardiovascular disease risk amongst the population eligible for the NHS Health Check Programme*. European Journal of Preventive Cardiology, 2013. **20**(1): p. 142-150.

*“A major deficiency in the Health Check Programme has been the lack of definition of the size of the high-risk population. Current performance*

*indicators include process but not outcome measures. The success of the Programme should be judged by the reduction in size of this population over time, not solely on simple metrics such as the number of Health Checks offered. Our study has provided a baseline estimate against which the health impact of the Programme can be monitored locally and nationally” p149*

View [abstract](#)

Wald NJ, Simmonds M, Morris JK (2011). *Screening for future cardiovascular disease using age alone compared with multiple risk factors and age*. PLoS One. May 4;6(5):e18742.

*“The advantages of age screening in the prevention of heart attack and stroke warrant considering its use in preference to multiple risk factor screening”*  
taken from abstract

View [full text](#)

**See related:**

McGuinness L (2011). *Cholesterol and blood pressure- lowering drugs should be available to everyone over the age of 55 years, a controversial study recommends*. Aging Health (2011) 7(3), 345–348.

*“The results of a recently published PLOS study have led the authors to suggest that everyone over the age of 55 years should be offered preventative treatments for stroke and heart disease, with no further screening carried out” p345.*

View [summary](#)

**Service evaluation**



Visram S, Carr SM, Geddes L et al (2014). *Can lay health trainers increase uptake of NHS health checks in hard-to-reach populations? A mixed-method pilot evaluation.* Public Health doi: 10.1093/pubmed/fdu041 (first published online: July 2, 2014)

*“A community-based, health trainer-led approach may add value by offering an acceptable alternative to health checks delivered in primary care settings. The service appeared to be particularly successful in engaging men and younger age groups. However, there exists the potential for intervention-generated inequalities”* taken from abstract

View [abstract](#)

Dachsel, M. and E. Lee (2011). *Opportunistic health checks in a retail environment.* London Journal of Primary Care, 2011(1): p. 5-10.

*“This service evaluation verifies the effectiveness of primary cardiovascular screening in a supermarket setting in south east London.....Over the eight-week period, 1024 participants (457 males, 44.6%; 567 females 567, 55.4%) undertook the screening. Four hundred and twenty-two participants (41.2%) required follow-up for abnormal readings.....Using the NHS health check age range, 34.3% of raised blood pressure measurements and 38.9% of raised blood glucose measurements would not have been picked up”* taken from abstract

View [full text](#)

Alford S, Perry C (2010). *Knowsley at Heart community NHS health checks: Behaviour change evaluation.* Centre for Public Health Research, University of Chester

*“It was evident from the evaluation that NHS Knowsley had been successful in engaging people in the community NHS health check programme. The service users commented positively on the health checks. A minority of participants were unsure what steps to take after the community health check, however, the majority of participants made some form of lifestyle change as a result of attending the check”* taken from abstract

View [summary](#)

Smith S, Waterall J and Burden ACF (2013). *An evaluation of the performance of the NHS Health Check programme in identifying people at high risk of having or developing Type 2 diabetes.* BMJ Open 2013; 3:e002219.

*“This evaluation, which was based on a large, high-risk population sample, demonstrates that the NHS Health Check programme diabetes filter failed to identify a third of people at actual risk of having or developing diabetes (defined as HbA1c  $\geq$ 42 mmol/mol)”* p1

View [full text](#)

Dalton, ARH (2012). *Evaluation of the NHS Health Check Programme: local and national findings from the early stages of the Programme.* PhD Thesis, 2012.

Imperial College, London.

*“Poor uptake of the NHS Health Check and interventions will severely limit the population-wide impact of the programme, Given this, and other limitations, I suggest a targeted approach to screening may be an appropriate alternative, and demonstrate from previous literature the complimentary use of population-wide prevention is likely to significantly improve CVD prevention”*

taken from abstract

View [abstract](#)

Dalton A, Marshall T and McManus R (2014). *The NHS Health Check programme: a comparison against established standards for screening*. British Journal of General Practice DOI: 10.3399/bjgp14X681997 Published 1 October 2014.

*“Given difficult beginnings, including an uncertain evidence base and faltering roll-out, this article explores the programme’s current status, 1 year after its change in commissioner. We consider health checks against some of the key concepts outlined in standard criteria for screening, ‘Wilson’s criteria’: namely the condition’s importance; efficacy of the test and treatment; and arrangement of the programme. We ask whether it should remain, in its current form, the flagship of English cardiovascular disease (CVD) prevention”*

View [full text](#)

### Case studies

Trueland J (2013). *Go to the mosques and temples – health check case study*. Health Service Journal, 30<sup>th</sup> Sept 2013.

*“How can health checks be more successful? One London borough is reaching out further into communities, while charities believe the checks themselves could be broader”*

View [full text](#)

Kumar J et al. (2011). *Implementing the NHS health check in general practice*. Nursing in Practice: The Journal for Today's Primary Care Nurse. 59: p.12-14

*“Offering NHS Health Checks to patients, either at the drop-in clinic or opportunistically, provides an alternative to the routine approach of asking patients to book an appointment by letter. Drop-in clinics do have the potential to save staff time and resources, and boost uptake. Partial checks minimise the waste of unnecessary duplication of blood test results, which also reduces patient inconvenience”* pg 14

View [full text](#)

### Diagnostic test studies

Jain A et al. (2011). *Point of care testing is appropriate for National Health Service health check*. Annals of Clinical Biochemistry, 2011. 48(2): p. 159-165.

*“There was a minimum mismatch irrespective of the type of risk calculator used. POCT measurements are adequate for the National Health Service Health Check”* taken from abstract.

View [abstract](#)

Whitehead SJ, Ford C, Rousseau G (2014). *The impact of different point-of-care testing lipid analysers on cardiovascular disease risk assessment*. J Clin Pathol. 2014 Apr 7.

*“Lipid point-of-care testing (POCT) analysers are being used to screen target populations to identify individuals at high risk of developing cardiovascular disease (CVD) as part of the National Health Service (NHS) Health Checks programme.....Identification of subjects at risk of CVD depends on the cardiovascular risk algorithm and also on the performance of the POCT device”* taken from abstract.

View [abstract](#)

### Other studies

Dalton ARH and Soljak M (2012). *The Nationwide Systematic Prevention of cardiovascular disease: The UK's health check programme*. Journal of Ambulatory Care Management, 2012. **35**(3): p. 206-215.

*“We outline the [NHS Health Check] program, its implications for public health and primary care, potential threats to the program, and its implications for the US health system. We conclude that the universal approach adopted contains a number of risks and uncertainties. The program's ongoing evaluation is vital and will provide internationally valuable data”*

View [abstract](#)

Martin H (2011). *Delivering NHS health checks to all*. British Journal of Healthcare Management, 2011. **17**(6): p250 - 255

*“.....primary care trusts have a real challenge ahead to successfully implement the [NHS Health Check] programme by 2012. Such challenges include: finding funding; deciding who will be responsible for commissioning the service; finding capacity for this service (and its required follow-up) and reaching certain populations. This article offers a novel model to address these changes”* taken from abstract

View [abstract](#)

Wilkinson I (2010). *Assessing vascular risks: the NHS Health Check programme*. Journal of Renal Nursing, Vol. 2, Iss. 4 28 Jul 2010, pp 178 – 181.

*“The article outlines the NHS Health Check programme in Great Britain that offers preventive checks to assess the risk of vascular disease in people ranging from 40 and 47 years, followed by management and personalized lifestyle interventions”* taken from abstract

View [abstract](#)

### Reports

Centre for Public Scrutiny (2014). *Checking the nation's health: the value of council scrutiny*.

*“This programme demonstrates the diversity of good scrutiny to tackle local health inequalities in the best way suited to localities. The reviews have gone some way to overcome some scepticism regarding the validity of the NHS Health Check programme. We believe that council scrutiny has been a valuable way to independently review the roll-out of the NHS Health Check programme – with findings that can be used locally and nationally to inform commissioning decisions” p14*

View [full text](#)

Diabetes UK (2014). *NHS Health Checks in Local Authorities. The story so far.*

*“We are publishing this report a year after the delivery of NHS Health Checks became the responsibility of local authorities, to look at performance so far and to highlight some examples of successful implementation. We hope that it will be useful in supporting local delivery” p3*

View [full text](#)

Public Health England (2013). *Understanding the implementation of NHS Health Checks.* Research Report Feb 2013.

*“The Public Health Service Programme Board asked Public Health England (PHE) to assess Commissioners’ and Providers’ experiences to date with the NHS Health Checks programme, and to gain an understanding of the engagement of public health professionals with NHS Health Checks and the process of implementing the programme” p4*

View [report](#)

Public Health England (2013). *Guidance: NHS Health Check implementation review and action plan.*

*“PHE will work with system partners to facilitate future research and evaluation of the NHS Health Check programme at a national and local level. This will provide the implementation evidence required to ensure effective roll-out and improvement” p27*

View [report](#)

Health Diagnostics (2013). *A Picture of Health. Four reports:*

- *Making sense of the complexities*
- *Making NHS Health Checks work for public health*
- *A successful transition into local authority control*
- *NHS Health Checks Case Study: The North East of England*

*“‘A Picture of Health’ is essential reading for anyone involved in the commissioning and delivery of NHS Health Checks: members of CCGs, public health leads in local authorities and local delivery consortia (GPs, Pharmacists and other contractors)”*

View [reports](#) (free registration required)

Health Diagnostics (2013). *The NHS Health Check: Leadership Forum. Summary*

and findings.

*“This report represents the essential content presented and discussed at the first ever NHS Health Check Leadership Forum. The forum took place during the Commissioning Show where public health professionals came to learn and share expertise about best practice in delivery and management of NHS Health Checks. An expert panel presented latest findings and case studies from their regions” p2*

View [report](#)

Diabetes UK (2012). *The NHS Health Check Programme – Let's Get It Right*. Sept 2012

*“There is a wide variation in the way the NHS Health Check programme is delivered and the performance achieved: In 2011–12, some PCTs offered an NHS Health Check to over 25 per cent of the eligible population, but others have offered less than 2 per cent.*

*There are concerns that the intensive lifestyle interventions recommended by NICE for people at high risk of Type 2 diabetes are not being commissioned comprehensively and opportunities to prevent thousands of cases of Type 2 diabetes are being missed” p4*

View [report](#)

NHS Improvement (2010). *Delivering the NHS Health Check: A practical guide to point of care testing*.

*“Drawing on the work of the Learning Network’s ‘Test Bed’ programme, case studies from the field and existing guidance, NHS Improvement has developed a series of short, practical guides covering various aspects of implementation and delivery of the NHS Health Check” p3*

View [report](#)

Department of Health (2008). *Putting prevention first: vascular checks: risk assessment and management*. 2008.

*“We believe that the case for detecting vascular risk early and preventing further damage or disease has been established and reflects the vision that the Prime Minister and Secretary of State share for the NHS in the 21st century. It will enable individuals to take responsibility for looking after their own health and take steps to prevent vascular disease, within a programme supported by health care professionals. The modelling work is continuing to establish the details of how the programme will best be delivered to achieve the greatest health benefit, while delivering value for money.....” p12*

View [report](#)

### **Case-finding**

Hooper J, Chohan P and Caley M (2014). *Case detection of disease by NHS Health Checks in Warwickshire, England and comparison with predicted performance*. *Public Health*. **128**(5): p. 475-477

*“The findings of this study show that NHS Health Checks has been effective in the detection of previously undiagnosed disease at a local level and are the first published results showing the rate of case detection by the programme. However, figures for coverage, uptake and case detection are all lower than predicted from modelled estimates of performance. This casts some doubt on the quoted modelled benefits of NHS Health Checks both in terms of clinical and cost effectiveness. It has been suggested that the model requires reconsideration with more realistic figures in order to more accurately quantify the potential benefits and costs of the NHS Health Checks programme”* p476  
No freely available abstract. Full text is available through [NHS Evidence Journals](#) with an NHS Athens password

### Ongoing research

Forster AS et al. (2014). *Enhanced invitation methods to increase uptake of NHS health checks: Study protocol for a randomized controlled trial*. *Trials*, **15**(1).

*“The project is a three-arm randomized controlled trial to test the hypothesis that enhanced invitation methods, using the Question-Behaviour Effect (QBE), will increase uptake of NHS Health Checks compared with a standard invitation. Participants comprise individuals eligible for an NHS Health Check registered in two London boroughs. Participants are randomized into one of three arms. Group A receives the standard NHS Health Check invitation letter, information sheet, and reminder letter at 12 weeks for nonattenders. Group B receives a QBE questionnaire 1 week before receiving the standard invitation, information sheet, and reminder letter where appropriate. Group C is the same as Group B, but participants are offered a £5 retail voucher if they return the questionnaire”* taken from abstract

View [full text](#)

UK Clinical Trials Gateway (2014). *Boosting uptake of NHS Health Checks in Northamptonshire. Using behavioural insights to change uptake of the NHS Health Check*.

*“The purpose of this study is to determine what type of patient invitation letter would be most likely to successfully encourage people to enrol on the NHS Health Check programme. The results will be used to help promote the uptake of Health Checks”*

View [details](#)

**See also:** UK Clinical Trials Gateway (2014). *Boosting uptake of NHS Health Checks in Medway*. View [details](#)

## References relating to general health checks

### Guidance

Rabar S, Harker M, O'Flynn N and Wierzbicki A (2014). *Lipid modification and cardiovascular risk assessment for the primary and secondary prevention of cardiovascular disease: summary of updated NICE guidance*. BMJ 2014;349:g4356 doi: 10.1136/bmj.g4356 (Published 18 July 2014).

*“This update makes a clear recommendation for the use of QRISK2 as the preferred cardiovascular disease (CVD) risk assessment tool, including people with type 2 diabetes. The threshold for consideration of statin treatment has dropped from 20% CVD risk in the next 10 years in the previous guideline to 10% CVD risk. The guideline recommends the use of non-HDL-cholesterol rather than low density lipoprotein-cholesterol because non-HDL-cholesterol does not require a fasting sample. This should make assessment and monitoring easier..... The GDG [Guideline Development Group] identified the following areas for further research:*

- *What is the comparative effectiveness of age alone and other routinely available risk factors versus formal structured multifactorial risk assessment for identifying people at high risk of developing CVD?*
- *When evaluating cost effectiveness for statin therapy in reducing CVD, is prediction improved by the use of a complete meta-analysis dataset based on individual patient outcomes rather than published outcomes data from individual trials?*
- *What is the effectiveness of statin therapy in older people?*
- *What is the effectiveness of statins or other treatments that lower low density lipoprotein-cholesterol in people with type 1 diabetes?*
- *What is the clinical effectiveness and rate of adverse events of statin therapy using atorvastatin 20 mg per day compared with atorvastatin 40 mg per day and atorvastatin 80 mg per day in people without established CVD?” p5*

View [extract](#)

### Reviews

Engelsen C, Koekkoek PS, Godefrooij MB et al. (2014). *Screening for increased cardiometabolic risk in primary care: a systematic review*. Br J Gen Pract. 2014 Oct;64(627):e616-26. doi: 10.3399/bjgp14X681781.

*“In this review, 26 screening programmes are described for detecting people with an increased cardiometabolic risk, performed in primary care. Observed time trends were the shift in focus from a mixed population to an apparently healthy population, an increased use of risk scores, and an increasing use of stepwise methods, especially in apparently healthy populations. In apparently healthy populations a substantial number of people were detected with an increased cardiometabolic risk, stressing the need for ongoing detection. Stepwise methods, increasing public awareness, and actively involving GPs*

could improve screening efficiency and uptake” e626

View [abstract](#)

Krogsbøll LT (2014). *Guidelines for screening with urinary dipsticks differ substantially-a systematic review*. Dan Med J 61/2, February 2014.

*“The combined dipsticks in common use in health checks and at admission to hospital have a potential to do harm, as do all medical interventions. Even when used for non-screening purposes, they give redundant information that may initiate a diagnostic cascade, and from this viewpoint their existence can be questioned. Using them for screening purposes without solid knowledge from randomised trials that the benefits exceed the harms is unethical, and guidance from authorities and specialist societies should reflect this”* p6

View [full text](#)

Si S, Moss JR et al (2014). *Effectiveness of general practice-based health checks: a systematic review and meta-analysis*. BJGP January 1, 2014 vol. 64 no. 618 e47-e53.

*“General practice-based health checks are associated with statistically significant, albeit clinically small, improvements in surrogate outcome control, especially among high-risk patients. Most studies were not originally designed to assess mortality”* taken from abstract

View [full text](#)

Krogsboll LT et al. (2012). *General health checks in adults for reducing morbidity and mortality from disease*. Cochrane database of systematic reviews (Online), 2012. **10**: p. CD009009.

*“General health checks did not reduce morbidity or mortality, neither overall nor for cardiovascular or cancer causes, although the number of new diagnoses was increased. Important harmful outcomes, such as the number of follow-up diagnostic procedures or short term psychological effects, were often not studied or reported and many trials had methodological problems. With the large number of participants and deaths included, the long follow-up periods used, and considering that cardiovascular and cancer mortality were not reduced, general health checks are unlikely to be beneficial”* taken from abstract

View [full text Cochrane review](#)

See related:

*Department of Health’s response (2013). NHS Health Check - Response to the Cochrane Review*. NHS Health Check website.

*“In response to demand from NHS Health Check commissioners, we have put together a further assessment of the Cochrane review published on 17<sup>th</sup> October 2012”.*

View [response](#)



Krogsboll LT, Jorgensen KJ and Gotzsche PC (2013). *General health checks in adults for reducing morbidity and mortality from disease*. JAMA - Journal of the American Medical Association, 2013. **309**(23): p. 2489-2490.

*“Compared with usual care, offers of health checks were not associated with lower rates of all-cause mortality, mortality from cardiovascular disease, or mortality from cancer. Health checks may be associated with more diagnoses and more drug treatment”.*

View [full text](#)

Prochazka AV and Caverly T (2013). *General health checks in adults for reducing morbidity and mortality from disease: Summary review of primary findings and conclusions*. JAMA Internal Medicine, 2013.**173**(5): p.371-372.

*“General health checks do not improve important outcomes and are unlikely to ever do so based on the pooled results of this meta-analysis spanning decades of experience”*

View [first page preview](#)

Robertson J et al (2011). *The impact of health checks for people with intellectual disabilities: a systematic review of evidence*. Journal of Intellectual Disability Research. 55(11): p. 1009-1019.

*“Health checks are effective in identifying previously unrecognised health needs, including life-threatening conditions. Future research should consider strategies for optimising the cost-effectiveness or efficiency of health checks”*  
taken from abstract

View [full text](#)

Gardiner E et al. (2010). *Response rates to population based screening for type 2 diabetes and pre-diabetes: A systematic review*. Diabetic Medicine, 2010. 1): p. 181-182. Conference abstract. Diabetes UK Annual Professional Conference Liverpool United Kingdom.

*“Opportunistic verbal invitation by the GP and use of non-fasting blood tests are the screening strategies associated with the highest response rate”* taken from abstract

No freely available abstract or full text

### **Cross sectional studies**

Krska J et al. (2014). *General public's experience of and willingness to use pharmacy public health services: A cross-sectional survey*. International Journal of Pharmacy Practice, 22: p. 14.

*“More than half indicated willingness to use general health check services, but willingness to use specific lifestyle services was lower and was related to need for these services. Smokers, risky drinkers and overweight people were more willing to seek advice for stopping smoking (OR=4.84, 95% CI 2.29-10.21), sensible drinking (OR=2.83, 95% CI 1.03-7.78) and losing weight*

(OR=2.23, 95% CI 1.62-3.07), respectively. There was a trend towards people aged 35 or over, retired, of higher socioeconomic status living in areas of moderate deprivation showing less willingness to use any service.

Respondents educated beyond secondary level were more likely to be willing to use health check services and frequent pharmacy users most likely to be willing to use any service" taken from abstract

No freely available online abstract.

Luger M et al. (2014). *Prevalence of cardiovascular disease risk factors from a health check program in an Austrian company*. Wiener Klinische Wochenschrift **1**): p. S134.

"The current investigation showed that a workplace CVD risk screening process was effective in identifying the relatively high prevalence of CVD risk factors amongst Austrian employees. Consequently, it draws attention to the need for the adoption of workplace programs to encourage a healthy lifestyle and to prevent diseases" taken from abstract

No freely available online abstract

Larsen GC, Jorgensen KJ and Gotzsche PC (2012). *Regular health checks: cross-sectional survey*. [Erratum appears in PLoS One. 2012;7(9)]. PLoS ONE 2012. **7**(3): p. e33694.

"The information on Danish websites from providers of health checks was sparse and severely biased in favour of health checks. None of the websites quantified the expected benefit of screening or provided information on possible risks and harms. The majority of the tests offered (81%) were either recommended against, or there was a lack of evidence or recommendations"

p3

View [full text](#)

### Qualitative research

Murphy M, McGloughlin M (2014). *The 'general check-up' in the asymptomatic adult - a study of GPs in the North West of Ireland*. Eur J Gen Pract. 2014 May 16:1-5. doi:10.3109/13814788.2014.916269

"GPs predominantly voiced frustrations with the AGCU [asymptomatic general check-up]..... citing examples of patients being falsely reassured, the increase in practice workload and the risk of over-diagnosis. Despite this, over 60% of GPs still felt that the AGCU could be clinically useful. This discrepancy between thinking that the AGCU can be clinically useful on one side and a lack of evidence and GP frustrations on the other is not easily understood from our research" p4

View [abstract](#)

Honey S, Hill K, Murray J, Craigs C (2014). *Patients' responses to the communication of vascular risk in primary care: a qualitative study*. Primary Health Care Research & Development / FirstView Article pp 1-10. DOI:

<http://dx.doi.org/10.1017/S1463423613000509> (Published online: 22 January 2014)

*“Risk messages were delivered via face-to-face consultations or by letter and were relayed in either a ‘downplaying’ or ‘serious warning’ style. Patients’ accounts of receiving information about risk revealed two broad response styles: ‘committed’ (active resistance; commitment to change) and ‘non-committed’ (procrastination; downplaying and fatalism). Responses to risk messages are usually assumed to be due to individual characteristics but they may be explained by an interaction between the way risk is communicated and the patient’s response style”* taken from abstract

View [abstract](#)

Creanor S, Millward BA, Demaine A, Price L. (2014). *Patients' attitudes towards screening for diabetes and other medical conditions in the dental setting*. British Dental Journal 216, E2 (Published online: 10 January 2014 doi:10.1038/sj.bdj.2013.1247)

*“One hundred and ninety-seven completed questionnaires were received from patients at primary care dental clinics and 429 from general dental practice patients. Overall, 87% of respondents thought that it was important or very important that dentists screened patients for medical conditions such as diabetes; 79% were very willing to let a dental team member carry out screening. The majority indicated willingness to be screened for various medical conditions during a visit to the dentist, with significantly higher proportions of respondents in the primary care clinics indicating willingness (hypertension: 83% vs 74%; heart disease: 77% vs 66%; diabetes 82% vs 72% [all p <0.02])”* taken from abstract

View [abstract](#)

Sondergaard A, Christensen B and Maindal HT (2012). *Diversity and ambivalence in general practitioners' attitudes towards preventive health checks - a qualitative study*. BMC family practice, 2012. **13**: p. 53.

*“We found that the participating GPs all conducted some kind of preventive health check, although the content of the health checks varied greatly. The study revealed a considerable ambivalence in the GPs’ attitudes towards health checks. The GPs would never deny a request for a health check, but they were not sure that the service was offered to the right patients. Our study also uncovers the GPs’ reservations about inducing negative psychological reaction and decreased well-being among the health check participants. The GPs demanded evidence of efficacy and organisation of preventive health checks”* p4

View [full text](#)

Sinclair A and Alexander HA (2012). *Using outreach to involve the hard-to-reach in a health check: What difference does it make?* Public Health, 2012. **126**(2): p. 87-95.

*“Not all non-attenders for screening appointments are negatively disposed towards health screening, and defining them all as 'hard-to-reach' does them*

*a disservice. The majority appeared to need outreach staff to convert them into attenders, but the costs of this need to be balanced against the benefits realized*" taken from abstract

View [abstract](#)

Boase S et al. (2012). *Tinkering and tailoring individual consultations: How practice nurses try to make cardiovascular risk communication meaningful*. Journal of Clinical Nursing, 2012. **21**(17-18): p. 2590-2598

*"For practice nurses to be instrumental in the successful delivery of health prevention policy initiatives such as the NHS Health Checks, it is important to acknowledge their views and perspectives in undertaking this work. This study suggests that the nurses recognised the need for further skills and a refinement of approach for those health professionals involved"* taken from abstract

View [abstract](#)

Kirkcaldy AJ et al. (2011). *Older men's experiences of community-based health checks in Knowsley, UK*. Global Public Health, 2011. **6**(1): p. 15-27

*"The main objective was to understand whether community-based health checks targeted at specific geographical and age groups were an effective way of improving health in men..... Results indicated that men were generally satisfied with both the content and structure of the health checks.....Reported improvements to health included giving up smoking, reducing alcohol consumption, increasing exercise and eating more healthily"* taken from abstract

View [abstract](#)

Linnell S and James S (2010). *Involving men in targeted primary health care: men's health MOTs*. Community practitioner: the journal of the Community Practitioners' & Health Visitors' Association, 2010. **83**(5): p. 31-34.

*"Health visitors initiated and developed a men's health project in North Staffordshire, adopting a client involvement approach to provide men's 'health MOTs' for men in deprived areas. As the sessions were expanded to other areas of the trust, a consultation process with focus groups was used to identify local men's needs and suggestions. The themes to emerge were-- men's fears around health, reducing health check fear and anxiety, female roles in health, suitable locations for men's health events, most desirable tests and advisors, and male-friendly written information"* taken from abstract

View [abstract](#)

Graffy J et al. (2010). *More than measurement: Practice team experiences of screening for type 2 diabetes*. Family Practice, 2010. **27**(4): p. 386-394.

*"Although those developing screening programmes attempt to standardize them, primary care teams need to adapt the work to fit local circumstances. Staff need a sense of ownership, training, well-designed information technology systems and protected time. Furthermore, screening is more than*

*measurement; at the individual level, it is a complete health care interaction, requiring individual explanations, advice on health-related behaviour and appropriate follow-up. The UK 'NHS Health Checks' programme should embrace these findings"* taken from abstract

View [full text](#)

### Modelling studies

Labeit A, Peinemann F, Baker R (2013). *BMJ Open*. 2013 Dec 23;3(12):e003387. *Utilisation of preventative health check-ups in the UK: findings from individual-level repeated cross-sectional data from 1992 to 2008.*

*"Our research shows the high importance of past screening behaviour for each of the analysed health check-ups [cervical cancer screening, breast cancer screening, blood pressure checks, cholesterol tests, dental screening and eyesight tests] for recent screening behaviour and it is important, therefore, to maintain a high level of prevention uptake. The GP plays a central role in the uptake of screening examinations and this role in prevention in the UK healthcare system should not be weakened"* p15

View [full text](#)

Chamnan P et al. (2012). *Estimating the potential population impact of stepwise screening strategies for identifying and treating individuals at high risk of Type 2 diabetes: A modelling study*. *Diabetic Medicine*, 2012. **29**(7): p. 893-904.

*"Compared with mass screening, an approach using routine data for risk stratification followed by an HbA1c test with a threshold of 42– <48 mmol/mol (6.0– <6.5%) for identifying individuals suitable for preventive interventions might prevent slightly fewer cases of Type 2 diabetes but with potential cost-savings"* taken from abstract

View [full text](#)

### Economic analysis

Schuetz CA et al. (2013). *A Standardized Vascular Disease Health Check in Europe: A Cost-Effectiveness Analysis*. *PLoS ONE*, 2013. **8**(7).

*"A vascular disease health check would likely be cost effective at 30 years in Denmark, France, Germany, Italy, Poland, and the United Kingdom"* taken from abstract

View [full text](#)

### Epidemiological studies

Syed AM, Talbot-Smith A and Gemmell I (2012). *The use of epidemiological measures to estimate the impact of primary prevention interventions on CHD, stroke and cancer outcomes: Experiences from Herefordshire, UK*. *Journal of Epidemiology and Global Health*, 2012. **2**(3): p. 111-124.

*"Physical inactivity and obesity are the major causes of CHD and stroke events (incidence and mortality) in Herefordshire. Their impact is greater than*

*the combined effect of hypercholesterolemia and hypertension. Epidemiological measures used in this study proved to be excellent tools in providing evidence-based public health information. Their use is strongly recommended to support prioritization of primary prevention interventions”* taken from abstract

View [abstract](#)

### Service evaluation

Gidlow C and Ellisa N (2014). *Opportunistic community-based health checks*. Public Health, Volume 128, Issue 6, June 2014, Pages 582–584.

*“Overall programme acceptability appeared high. The opportunistic intervention identified a population with considerable health risk and helped to raise awareness. Qualitative data suggested that, for some, this was community-based catalyst for accessing mainstream health services.....Our findings resonate with the reported benefits of community outreach for CVD prevention through health checks. Key differences between the usual CVD health check model and that described here were the less stringent targeting (based on age only), lack of participant invitations/appointments, and the brief, less comprehensive health assessment; a model which should be considered as an adjunct to the more traditional health check programmes”* p583-584

View [first page preview](#)

Hunt D (2013). *Evaluation of the Healthy LifeCheck programme: a vascular risk assessment service for community pharmacies in Leicester city, UK*. J Public Health (Oxf), 2013. **35**(3): p. 440-6.

*“Cardiovascular risk assessment led by community pharmacies can successfully assess people from large, multi- ethnic UK populations and identify those at high cardiovascular risk or with undiagnosed cardiovascular disease. The service may improve rates of assessments undertaken by individuals who do not access health care through traditional routes”* taken from abstract

View [full text](#)

Lambert AM et al. (2012). *Cardiovascular screening for men at high risk in Heart of Birmingham Teaching Primary Care Trust: The 'Deadly Trio' programme*. Journal of Public Health, 2012. **34**(1): p. 73-82.

*“This evaluation compares the effects of two different models of screening men for cardiovascular risk factors. Single-handed GPs paid to screen patients achieved good uptake compared with multi-partner practices suggesting that incentives may be different for different types of practices. Uptake was increased for patients with more complete administrative data, particularly telephone number, emphasizing the importance of maintaining patient record data”* p80

View [full text](#)

Cole H et al. (2010). *Reducing cardiovascular risk in first degree relatives of patients with premature coronary heart disease*. European Heart Journal, 2010. **31**: p. 807.

Conference abstract. European Society of Cardiology, ESC Congress 2010 Stockholm Sweden.

*“This study demonstrated the provision of such a service [inviting first degree relatives (FDR) to a cardiac specialist nurse led primary prevention service in secondary care], accessed by motivated individuals, was an effective strategy for addressing cardiovascular risk in FDR of patients with premature CHD, which is responsible for a significant burden of health inequality in England. FDR were referred for intervention ranging from lifestyle management, medical treatment and investigations depending on their cardiovascular risk”* taken from abstract

View [poster](#)

Amoroso C et al (2009). *The 45 year old health check - Feasibility and impact on practices and patient behaviour*. Australian Family Physician. 38(5): p. 358-362.

*“There was ambivalence among some of the general practitioners toward the health check, but most found it feasible. The reported frequency of GP advice relating to each of the SNAP (smoking, nutrition, alcohol, and physical activity) risk factors increased; patient referrals, however, were infrequent. Patients' readiness to change their diet and exercise habits improved as a result of the check, with respondents showing an increase in both the consumption of vegetables and the frequency of physical activity”* taken from the abstract

View [full text](#)

### Audit

Hardy S and Gray R (2012). *Is the use of an invitation letter effective in prompting patients with severe mental illness to attend a primary care physical health check?* Primary health care research & development, 2012. 13(4): p. 347-352.

*“Patients with diabetes were 2.2 times more likely to attend a health check compared with those with SMI [severe mental illness] (OR = 2.20, 95% CI = 1.13-3.62). Although attendance rates were lower than in patients with diabetes, they were higher than expected from the SMI group. An invitation appointment letter is an effective way of ensuring that patients with SMI have a physical health check”* taken from abstract

View [abstract](#)

### Quality indicators and standards

Bijlsma M, Rendering A, Chin-On N et al. (2014). *Quality criteria for health checks: Development of a European consensus agreement*. Preventive Medicine 67 (2014) 238–241.

*“In the development of the quality criteria, the working group came to strong consensus on three guiding principles. First, individuals should have access to adequate and sufficient information to make an informed decision about health checks. Therefore, the criteria specify what constitutes adequate information and informed consent.....and what topics need to be covered.....Second, the quality criteria should improve beneficence in prevention and early detection of health risks and disease and protect individuals against potential adverse consequences (maleficence) of health checks.....And third, the criteria should ensure the quality of the health checks in the broadest sense. This principle led to the inclusion of specific criteria about the quality of the service and the establishment of management systems to ensure the quality, safety and information security”* p240

View [full text](#)

### Evidence summaries

Sudarsanam TD and Tharyan P (2013). *Are routine general health checks in healthy adults effective in preventing morbidity and mortality due to cardiovascular diseases and cancer? Summary of the evidence and implications for public health programmes*. Clinical Epidemiology and Global Health, 2013. **1**(1): p. 19-22.

*“.....the current practice of providing general health checks to asymptomatic healthy adults is unlikely to yield clinically meaningful benefits unless newer interventions are found that demonstrate reduced mortality and morbidity in those identified with risk factors, or with early or sub-clinical disease”* p22

View [full text](#)

### Other studies

Turner S (2011). *Increasing health checks for people with learning disabilities*. Nursing standard (Royal College of Nursing) 2011. **26**(7): p. 35-38.

*“This article explores ways in which health checks can be increased, thus reducing health inequalities in people with learning disabilities”* taken from abstract

View [full text](#)

### Ongoing research



Maindal HT, Stovring H and Sandbaek A (2014). *Effectiveness of the population-based Check your health preventive programme conducted in primary care with 4 years follow-up [the CORE trial]: Study protocol for a randomised controlled trial.* *Trials*, 2014. 15(1).

*“This study will evaluate the effect of health checks in a general population in a 4-year follow-up period. The logistics of the trial would not in any case allow the intervention to be offered simultaneously to the entire target population. The stepped inclusion in the trial (lagged intervention) is, therefore, considered to be the strongest design to evaluate a realistic health-promotion strategy within a well-defined geographical area - the municipality. The trial will not solely assess effectiveness of the intervention with respect to risk factors, but effectiveness of a broad range of health and social outcomes, and the trial establishes the associated costs. While preventive services can be costly in the short-term, they are intended to lower overall healthcare expenditures over time by addressing potential health problems sooner rather than later” p8-9*

View [full text](#)