Public Health England

Protecting and improving the nation's health

NHS Health Check programme:
Literature review January 2015 to April 2015

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
Twitter: @PHE_uk
Facebook: www.facebook.com/PublicHealthEngland

Published June 2015
PHE publications gateway number: 2015151

Contents

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. Methods

Medline, Embase, Health Management Information Consortium (HMIC), Cumulative Index of Nursing and Allied Health Literature (CINAHL), PsycInfo, the Cochrane Library, NHS Evidence, Google Scholar, Clinical Trials.gov and ISRCTN registry were searched for references relevant to the NHS Health Check programme and general health checks.

Previous searches had identified references from between January 1996 and January 2015 (week 1). This search identifies references **from January 2015 to April (week 3), 2015**. The search strategies used previously have been updated to include terms for cardiovascular and diabetes health checks, in order to widen the search.

Additionally, two extra databases have been searched - PsycInfo and the Cochrane Library.

Table 1. Search strategy

Database	Search strategy
Ovid Medline and Embase	1. (nhs and health check*).tw. 2. (national health service and health check*).tw. 3. (health check* and program*).tw. 4. (uk and health check*).tw. 5. (united kingdom and health check*).tw. 6. (england and health check*).tw. 7. (universal and health check*).tw. 8. (general and health check*).tw. 9. (preventive and health check*).tw. 10. (vascular and health check*).tw. 11. (cardiovascular and health check*).tw. 12. (uptake and health check*).tw. 13. (diabetes and health check*).tw. 14. (heart and health check*).tw. 15. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 16. limit 15 to yr="2015"
Ovid HMIC	1 "health check*".af. 2 health checks/ 3 1 or 2 4 limit 3 to yr="2015"
EBSCO CINAHL	(nhs and health check*) OR (national health service and health check*) OR (health check* and program*) OR (uk and health check*) OR (united kingdom and health check) OR (england and health check*) OR (universal and health check*) OR (general and health check*) OR (preventive and health check*) OR (vascular and health check*) OR (cardiovascular and health check*) OR (uptake and health check*) OR (diabetes and health check*) OR (heart and health check*)
PsycInfo	1"health check*".af 2 PHYSICAL EXAMINATION/ 3 HEALTH SCREENING/ 4 1 OR 2 OR 3 5 4 [Limit to: Publication Year Current-2015]

Cochrane Library (Wiley)	(nhs and health check*) OR (national health service and health check*) OR (health check* and program*) OR (uk and health check*) OR (united kingdom and health check) OR (england and health check*) OR (universal and health check*) OR (general and health check*) OR (preventive and health check*) OR (vascular and health check*) OR (cardiovascular and health check*) OR (uptake and health check*) OR (diabetes and health check*) OR (heart and health check*)
NHS Evidence	*nhs "health check*"*
Google Scholar	*nhs "health check*"* *cardiovascular "health check*"* *vascular "health check*"*
Google (Jan 1st 2015 to Apr 23rd 2015)	*"nhs health check*"*
Clinical trials.gov and ISRCDN registry	*"health check"*

Citation 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 are shown in table 2.

Table 2. References published between January 2015 and April (week 3), 2015, by database

Database	No. of hits	Exclusive
Medline	4	4
Embase	56	52
HMIC	4	4
CINAHL	11	8
PsycInfo	65	60
Cochrane Library	24	24
TOTAL		**152**

From these 152 results, 2 were identified as being relevant to the NHS Health Check programme and 9 to general health checks. Additionally, a search of the web sources NHS Evidence, Google Scholar, Google and the two trials registers, identified a further 11 references of relevance to NHS Health Checks and 11 to general health checks.

In total, there were 33 relevant references - 13 on NHS Health Checks and 20 on general health checks.

References on the NHS Health Check Programme

Cohort studies

Robson J (2015). *The NHS Health Check programme: implementation in east London 2009–2011*. BMJ Open2015;5:e007578. doi:10.1136/bmjopen-2015-007578.

"*The NHS Health Check programme was successfully implemented across all primary care organisations in three of the most disadvantaged boroughs in the UK, achieving 73% annual coverage by 2011 and delivering 20 000 NHS Health Checks annually. Older people were more likely to attend and attendance among black African/Caribbean, South Asian and White ethnic groups and all quintiles of deprivation reflected their representation in the local population. One in 10 of those attending an NHS Health Check were at high-CVD risk, of whom 32% were prescribed statins, with prescription higher in Tower Hamlets at 48.9%, than in the other two PCTs: City and Hackney 23.1% and Newham 20.2%. One new case of hypertension per 38 Health Checks, 1 new case of diabetes per 80 Checks, and 1 new case of CKD per 568 Checks were identified. PCTs inviting those at highest risk first, identified more people at high-CVD risk. Managed practice networks in Tower Hamlets were associated with the highest levels of coverage, new comorbidity, high-CVD risk identification and statin treatment*" p8-9
View full text

Cross-sectional studies

Baker C et al (2014). *Patients' perceptions of a NHS Health Check in the primary care setting.* Quality in Primary Care 22: 232-37.

"*This study highlights that the Health Check was widely perceived as worth attending but the purpose of Health Checks is open to wide interpretation by patients. For example, not all patients were clear on the meaning or significance of the CVD risk score*" taken from abstract
View abstract

Note: this citation appears in a Google search and on the Researchgate website, but seems to have been removed from PubMed (which may explain why it was not retrieved during the last update)

Qualitative research

Ismail H & Atkin K. *The NHS health check programme: Insights from a qualitative study of patients*. Health Expectations: An International Journal of Public Participation in Health Care & Health Policy 2015. 3 MAR 2015. DOI: 10.1111/hex.12358

"*Those involved in the delivery of the programme need to adopt a consistent approach in terms of explaining the purpose of the Health Check, communicating risk and consider the challenges and the barriers that influence behaviour change*" taken from abstract
View abstract

Shaw RL et al. (2015). *Be SMART: examining the experience of implementing the NHS Health Check in UK primary care*. BMC Family Practice 2015, 16:1 doi:10.1186/s12875-014-0212-7.

"*The findings presented demonstrate irregularity in the delivery of the NHS Health Check in the region observed and some misconceptions and dissatisfaction among the patients recruited. These results are significant because they illustrate the lost potential to reduce CVD risk through non-compliance to intervention protocol. Addressing this requires investment in HCP training to ensure they understand the rationale of behaviour change elements of public health interventions. This training should extend to Practice managers and others involved in organising the delivery of the health check to ensure appropriate resources are available and to integrate it into standard practice. It was also clear from our results that further work is required to communicate the importance of preventative health to the public and to change attitudes toward preventative medicine. This is essential for the success of prevention programmes in terms of both health and economic outcomes*" p7
View full text

Jenkinson C et al. (2015). *Patients' willingness to attend the NHS cardiovascular health checks in primary care: a qualitative interview study*. BMC Family Practice 2015, 16:33 doi:10.1186/s12875-015-0244-7.

"*For the NHSHC programme to achieve its cost effectiveness targets more must be done to improve uptake. Although the latest guidance has downgraded the acceptable uptake threshold from 75% to 50%, considerable scope remains for rigorous qualitative investigation with diverse patient groups to better understand the barriers and motivators to NHSHC attendance. Our study highlights the need for greater clarity, but also brevity, of invitation materials and more creative advertising. Future studies should test the impact of simple interventions (e.g. systematic use of reminder letters)"* p8
View full text

Honey S et al. *Patients' responses to the communication of vascular risk in primary care: A qualitative study*. Primary Health Care Research and Development, 2015. 16(1): 61-70.

"*Ideally patients should receive an individualized cardiovascular risk message in an understandable format……Our findings suggest that this did not always happen. The risk reviewing process did not appear to consider patient response to risk messages – some people may acknowledge their risk and be willing and eager to change; some may be completely resistant; many others may be willing to change if given adequate explanations of risk and support for lifestyle change. Health care professionals may face difficulties providing this support if they do not identify these different styles*" p69
View abstract

Siebert P. (2015). *Exploring Evaluation in Practice from the Perspective of Public Health and Health Professionals: a Qualitative Field Study*. PhD thesis, University of Sheffield, March 2015.

"*Interview and observation data from 16 participants of varying roles and experience involved in implementing the NHS Health Check programme including programme documentary data was analysed…..Evaluation in practice was observed to be predominantly retrospective, unstructured and focused on generating descriptive information about the programme's processes and progress….. Limited use of recognised public health evaluation methodologies at local level was due to a mixture of operational, political and personal factors, including the desire to show success. The purpose of evaluation was to provide information to justify policy and financial decisions and to preserve services and jobs. Therefore the political and organisational structures and arrangements need to be in place to enable public health professionals to conduct robust evidence to deliver critical findings*" taken from abstract
View full text

Reports

Local Government Association (2015). *Checking the health of the nation: Implementing the NHS Health Check Programme*. March 2015.

"*Across the country local authorities are using innovative ways to deliver the programme. Many local authorities are using the NHS Health Check to target individuals or communities at increased risk by focusing efforts among socio-economically disadvantaged communities and using proactive outreach programmes to get into those communities who are less likely to attend their general practice. Areas across the country from Kent, to Manchester and Durham are using health buses and health trainers to target these communities*" p2
View report

Diabetes UK (2015). *STATE OF THE NATION. Challenges for 2015 and beyond*.

"*Diabetes accounts for around 10 per cent of the annual NHS budget - nearly £10 billion a year - and the statistics show that eighty per cent of this goes on managing preventable complications. The report claims this is due to too many people with diabetes "not receiving all of the vital annual checks for the effectiveness of diabetes treatment, cardiovascular risk factors, and the emergence of early complications." This is argued to be largely due to the lack of delivery of the NHS Health Check Programme, which can identify people at risk of developing Type 2 diabetes and implement a diabetes prevention programme to halt the condition. The research linked to this claims that if these programmes were fully implemented, it could "prevent 4,000 people a year from developing diabetes*"
View report

Department of Health (2015). *Government Response to the House of Commons Science and Technology Committee Report on National Health Screening*. Jan 2015.

"*The Government is committed to bringing greater scientific and clinical rigour to the programme. All elements of the programme are strongly evidence based, drawing on established National Institute for Health and Care Excellence (NICE) guidance. In 2013, PHE published a summary of the programme's evidence in 'NHS Health Check: our approach to the evidence', which set out clear actions to support stronger scientific oversight of the programme. Following this, an Expert Scientific and Clinical Advisory Panel, formed of eminent clinicians and academics, was established to scrutinise and advise on the evidence base and facilitate future research and evaluation at a national and local level. A member of the UK NSC Secretariat attends this Panel, along with representation from the NICE*" p11
View report

Case studies

East Riding of Yorkshire Council (2015). Case Study p37-41. In: Local Government Association (2015). *Public health transformation twenty months on: adding value to tackle local health needs*. Feb 2015.

"Key headlines from the evaluation [a comprehensive audit of how providers are delivering the NHS Health Check programme] *include:*

- *providers follow national guidance and standards to deliver the service and all providers were identified as delivering the service to a good or adequate standard*
- *92 per cent of residents rated their experience of the service as good or very good*
- *92 per cent of residents reported that during their NHS Health Check staff were helpful, friendly and clear about the service*
- *some areas of improvements have been identified when assessing residents' eligibility, particularly in relation to checking when a resident last had a check*
- *Feedback from the evaluation will be used to improve delivery"* p39

View report

Ongoing research

Enable East (2015). *NHS Health Checks Pilot in Suffolk & Waveney*. [Accessed 29th April 2015].

"*Enable East has been contracted by Suffolk County Council to deliver a pilot programme of NHS Health Check provision in Suffolk and Waveney within a variety of outreach locations including areas of high deprivation, work places and the community. The main target audience are people with professionally diagnosed mental health conditions and learning disabilities. We will only do health checks if the person receiving the NHS Health Check falls within one of the following categories:*

- *Has a professionally diagnosed mental health condition*
- *Has a professionally diagnosed learning disability*
- *Is from a BME group*
- *Is homeless*
- *Is an Asylum seeker*
- *Is from the travelling community*
- *Is an addict / recovering addict*" taken from website

View details

References relating to general health checks

Systematic reviews

Goldfarb M et al. (2015). *Screening Strategies and Primary Prevention Interventions in Relatives of People with Coronary Artery Disease: A Systematic Review and Meta-Analysis*. Canadian Journal of Cardiology. In Press: available online 20 February 2015. doi:10.1016/j.cjca.2015.02.019.

"*Screening strategies targeting family members, particularly when led by a healthcare professional, achieve a high participation rate. Although the available evidence is of variable quality, interventions that target individuals with a family history of CAD appear to be feasible and may be effective in improving certain risk factors or health behaviors but their long-term CV benefits remain uncertain*" taken from abstract
View full text

Randomised controlled trials

Greaves C et al. (2015). *Waste the waist: A pilot randomised controlled trial of a primary care based intervention to support lifestyle change in people with high cardiovascular risk.* The International Journal of Behavioral Nutrition and Physical Activity, 12 (1):1.

"*Patients aged 40–74 with a Body Mass Index of 28 or more and high cardiovascular risk were identified from risk-assessment data or from practice database searches. Participants were randomised, using an online computerised randomisation algorithm, to receive usual care and standardised information on cardiovascular risk and lifestyle (Controls) or nine sessions of the Waste the Waist programme (Intervention)……Based on last observations carried forward, the intervention group did not lose significantly more weight than controls at 12 months, although the difference was significant when co-interventions and co-morbidities that could affect weight were taken into account (Mean Diff 2.6Kg. 95%CI: −4.8 to −0.3, p = 0.025). No significant differences were found in physical activity*" taken from abstract
View full text

Lokkegaard T et al. (2015). *Psychological consequences of screening for cardiovascular risk factors in an un-selected general population: results from the Inter99 randomised intervention study*. Scandinavian Journal of Public Health, 43(1): p.102-10.

"*Concerns that general health checks, including screening for risk factors to ischemic heart disease (IHD), have negative psychological consequences seem widely unfounded…..This large, randomised intervention study supports that screening for risk factors to IHD does not increase mental distress, not even in the mentally or socioeconomically most vulnerable persons*" taken from abstract
View abstract

Patience A et al. (2015). *Does the early feedback of results improve reassurance following diagnostic testing? A randomized controlled trial in patients undergoing cardiac investigation*. Health Psychology 34(3): 216.

"*Fifty-one cardiology outpatients with no known cardiac pathology referred for an echocardiogram test were randomized following normal test results to receive their test results from a cardiologist either immediately following testing or 4 weeks later…..Data analysis showed that the provision of early results had no impact on patient reassurance….The study suggests the identification and targeting of patients high in cardiac anxiety may be a better method for improving reassurance than reducing the waiting time for results following medical testing*"
View abstract

Clincial trials

van ZT et al. (2015). *Providing prescheduled appointments as a strategy for improving follow-up compliance after community-based glaucoma screening: Results from an urban underserved population*. Journal of Community Health 2015 Feb; 40(1):27-33.

"*Individuals in the control group (n=41) received counseling on glaucoma and a recommendation for obtaining a follow-up appointment at the eye department of a local community health center…..Those in the intervention group (n=22) received the same counseling and a prescheduled appointment at the community health center. The overall rate of follow-up compliance within 3 months of screening was 30% (41% in the intervention group; 24% in the control group). Multivariate logistic regression analysis…..found that follow-up compliance was significantly associated with intervention (adjusted odds ratio 4.8; 95% confidence interval 1.1–20.9). Providing prescheduled appointments can improve follow-up compliance after community-based glaucoma screening. This finding may be potentially applicable to community-based health screening for other preventable diseases*" taken from abstract
View abstract

Cross-sectional studies

Okada R. (2015). *Within-visit blood pressure variability is associated with prediabetes and diabetes*. Nature Scientific Reports 5, Article number:7964 doi:10.1038/srep07964. 15TH Jan 2015.

"*In the present study, high within-visit BPV* [blood pressure variability] *was significantly associated with the prevalence of prediabetes and diabetes, independent of mean SBP, in a large general population. Our results suggest that measuring BPV at a single visit may help to identify subjects at increased risk of having impaired glycemic control*" p2-3
View full text

Helou TN et al. (2015). *Factors affecting cardiovascular risk perception in subjects submitted to a routine health evaluation*. Circulation 2015; 131: AP060.

"Among asymptomatic individuals submitted to a routine medical evaluation there was a high prevalence of hypo-perception [underestimation] *of CV risk. Aging, smoking, dyslipidemia, physical activity and the use of medications were associated with a higher chance of risk hypo-perception. Thus, subjects in these conditions may benefit from a more careful risk orientation on health check-ups*" taken from abstract
View abstract

Cohort studies

Lee H et al. *Association of cardiovascular health screening with mortality, clinical outcomes, and health care cost: A nationwide cohort study*. Preventive Medicine: An International Journal Devoted to Practice and Theory, 2015. 70: p.19.

"*Participation in CVD health screening was associated with lower rates of CVD, all-cause mortality, and CVD events, higher detection of CVD-related health conditions, and lower healthcare utilization and costs*" taken from abstract
View abstract

Helou T et al. (2015). Factors Affecting Cardiovascular Risk Perception in Subjects Submitted to a Routine Health Evaluation. Circulation 2015; 131: AP060.

"*Among asymptomatic individuals submitted to a routine medical evaluation there was a high prevalence of hypo-perception of CV risk. Aging, smoking, dyslipidemia, physical activity and the use of medications were associated with a higher chance of risk hypo-perception. Thus, subjects in these conditions may benefit from a more careful risk orientation on health check-ups*" taken from abstract
View abstract

Savolainen J et al. (2015). *Decreasing cholesterol levels in the community – lifestyle change with statin?* BMC Family Practice 2015, 16:29.

"*The present study population included 326 individuals who did not use lipid-lowering*

medication at the baseline. A trained research nurse measured weight, height, waist circumference and blood pressure at the baseline and follow-up……The present community and primary care setting findings suggest that, at the population level, individual cardiovascular risk factor levels can be improved with lifestyle changes and use of drugs. A lowering of cholesterol levels was achieved significantly among those people who used statins, as expected, although a favourable change in lifestyle had at least an additive influence on serum cholesterol level" taken from abstract and p5
View full text

Leea H et al. (2015). *Association of cardiovascular health screening with mortality, clinical outcomes, and health care cost: A nationwide cohort study*. Preventive Medicine. Volume 70, January 2015, p19–25.doi:10.1016/j.ypmed.2014.11.007.

"*In this large nationwide study we found that participation in CVD health screening was associated with lower rates of CVD and all-cause mortality and CVD events, increased detection of CVD-related health conditions, and lower healthcare utilization and costs. Our findings are consistent with the hypothesis that participation in CVD health screening in the context of appropriate follow-up care may result in substantial health benefits and may effectively foster population health promotion. In the absence of large randomized controlled trials, our findings are suggestive of the effectiveness of participation in CVD screening programs*" p23
View full text

Audit

Takhar A et al. (2015). *Sweetwise: Developing a multi-professional approach to diabetes mellitus.* Primary Health Care Research and Development Mar 17:1-7.

"*The findings* [of an audit project to determine the take up of annual health checks by patients with diabetes mellitus with dentists, optometrists, pharmacists as well as the usual check with the General Medical Practice team] *showed that a significant number of patients (29–50%) do not access available dental, optometry and pharmacy advice. Better collaboration between the professions has the potential to improve health outcomes in diabetes mellitus and other areas where lifestyle modification reduces adverse health risks. A patient advice card (SWEETWISE) was developed by the group and could be used to help educate patients and health professionals"* taken from abstract
View abstract

McConkey R et al. (2015). *Optimizing the uptake of health checks for people with intellectual disabilities.* Journal of Intellectual Disabilities January 20, 2015 1744629514568437.

"*Although confined to one small region of the United Kingdom, this study provides the most detailed information to date on the uptake of health checks for people with ID. Compared to England and Wales, it would seem that greater coverage has been attained in Northern Ireland, with around 87% of adult persons with ID registered with a practice that offers an annual health check. There is fairly clear evidence that this can be attributed to the appointment of health facilitators, given the variation that existed across the five trusts. The more the health facilitators and the longer they have been in post, the greater was the number of practices that provided health checks. Their role in supporting practices to provide health checks may help in overcoming some of the barriers these patients may have encountered previously*" p8
View abstract

Qualitative research

Petter J et al. (2015). *Willingness to participate in prevention programs for cardiometabolic diseases*. BMC Public Health 2015, 15:44 doi:10.1186/s12889-015-1379-0.

"*Of the participants in our study, 56% and 47% were willing to participate in a health check and a lifestyle intervention program, respectively. By removing barriers to participate, willingness to participate could be increased to 80 to 90%, particularly in the age category 39–65 year, which is the target population for many prevention programs for cardiometabolic diseases. Barriers for participation in a health check were mainly part of personal beliefs. Providing tailored persuasive information might change personal beliefs, such as feelings of worry and anxiety for knowing the actual risk for cardiometabolic diseases. This could increase willingness to participate. However, providing tailored information is a time-consuming and intensive process. Costs versus benefits of tailoring should be weighted out*" p4
View full text

Service evaluation

Tamura T and Kimura Y. (2015). *Specific Health Checkups in Japan: The Present Situation Analyzed Using 5-Year Statistics and the Future*. Biomed Eng Lett (2015) 5:22-28. DOI 10.1007/s13534-015-0172-4.

"……a new screening and interventional program specifically targeting metabolic syndrome commenced in April 2008. This program targeted individuals in the age group 40-74 years. The program sought to prevent the risk of development of lifestyle-related diseases. In this review, we analyze 5-year statistical data, discuss the efficiency of the screening program, and offer a brief explanation of the applicability of information communication technology (ICT)" taken from abstract

View full text

Nohara Y. et al. (2015). *Health Checkup and Telemedical Intervention Program for Preventive Medicine in Developing Countries: Verification Study*. J Med Internet Res. 2015 Jan; 17(1): e2. Published online 2015 Jan 28. doi: 10.2196/jmir.3705.

"*The present study findings suggest that our eHealth system, combining a health checkup and teleconsultation via the mobile network, is an effective tool in the social health care system in developing countries. It also suggests that the stratification rule is working effectively. In the future, we plan to continue large-scale research into the results of our program, evaluating long-term outcomes to better assess the quality of the service. We will investigate changes in mortality and the frequency of clinic and hospital visits as well as changes in the basic health level and the total costs involved*" e2
View full text

Feasibility studies

Thompson H et al. (2015). *Risk screening for cardiovascular disease and diabetes in Latino migrant farmworkers: A role for the community health worker*. Journal of Community Health: The Publication for Health Promotion and Disease Prevention 40(1): 131.

"*This pilot study examined the accuracy with which Latino CHWs* [community health workers] *could determine migrant farmworkers at risk for diabetes or cardiovascular disease (CVD) in rural Virginia. This quasi-experimental study supports the hypothesis that Latino CHWs can use non-invasive diabetes and CVD screening tools with similar accuracy as a registered nurse. The screening tools used were the American Diabetes Association's diabetes risk calculator and a non-laboratory screening tool for CVD risk designed by Gaziano et al*." taken from abstract
View abstract

Qureshia N et al. (2015). *Comparison of coronary heart disease genetic assessment with conventional cardiovascular risk assessment in primary care: reflections on a feasibility study*. Primary Health Care Research & Development. DOI: http://dx.doi.org/10.1017/S1463423615000122. March 2015.

"*This study assesses the feasibility of collecting genetic samples and self-reported outcome measures after cardiovascular risk assessment, and presenting the genetic test results to participants…… As a feasibility study, over a third of individuals offered genetic testing in primary care, as part of CVD risk assessment, took up the offer. Although intervention did not appear to increase anxiety, this needs further evaluation. To improve generalizability and effect size, future studies should actively*

engage individuals from wider socio-economic backgrounds who may not have already contemplated lifestyle change. The current research suggests general practitioners will face the clinical challenge of patients presenting with direct-to-consumer genetic results that are inconsistent with conventional cardiovascular risk assessment" taken from abstract
View abstract

Viitasalo K. et al. (2015). *Prevention of diabetes and cardiovascular diseases in occupational health care: Feasibility and effectiveness*. Primary Care Diabetes 9(2): 96-104.

"*Identification of employees with cardiovascular and diabetes risk, and the low intensity lifestyle intervention were feasible in occupational health-care setting. However, the health benefits were modest and observed only for men with increased risk*" taken from abstract
View abstract

Diagnostic test studies

Jones C. et al. (2015). *Framingham Ten-Year General Cardiovascular Disease Risk: Agreement between BMI-Based and Cholesterol-Based Estimates in a South Asian Convenience Sample*. PLoS One. 2015; 10(3): e0119183.

"*Despite acceptable average differences in BMI-based vs. cholesterol-based Framingham ten year general CVD risk scores in our SA convenience sample, only moderate agreement between the scores was found when risk was categorized as low, moderate or high. While disagreements occurred in both directions, BMI-based risk was assessed as higher than cholesterol-based risk more often than it was found to be lower. Accordingly, the two risk scores cannot be used interchangeably in our national, community-based screening program. Valid assessment of change in participants' CVD risk over time will require that one or the other be used consistently within participants who attend repeated screening sessions*" p13-14
View full text

Ongoing research

ISRCTN Registry (2015). *Will providing different types of coronary heart disease risk information result in a change in lifestyle?* ISRCTN17721237DOI 10.1186/ISRCTN17721237. 12/01/2015.

"*Participants aged between 40 and 84 years who have taken part in the INTERVAL study and completed their two-year questionnaire can participate in the INFORM study…….The primary objective is to evaluate the effect of provision of phenotypic and genetic coronary heart disease risk scores and lifestyle advice on physical activity at three months measured objectively using an Axivity AX3 3-Axis Logging*

Accelerometer®, defined as average acceleration (m/s2). The secondary objectives are to evaluate the effect of provision of phenotypic and genetic coronary heart disease risk scores and lifestyle advice on the following measures:
1. Objectively measured dietary behaviour (key secondary objective): serum carotenoid levels
2. Cardiovascular risk factors: objectively measured total-, high density lipoprotein-, and low-density lipoprotein-cholesterol, triglycerides and fructosamine; self-reported weight, smoking status, alcohol consumption, physical activity and dietary behaviour
3. Current medication and healthcare usage
4. Perceived risk: comparative and absolute perception of risk
5. Cognitive evaluation of provision of coronary heart disease risk scores: participant's acceptability and understanding of the risk scores and accuracy of their risk perception
6. Psychological outcomes: anxiety associated with testing, fatalism, depression, stress and mood"
View details