Appendix 2: NHS Health Check Services Review

1. Scope

This review covers NHS Health Check services in Herefordshire currently provided via "any qualified provider" contracts.

2. Purpose

The purpose of this review is to inform the strategic commissioning of NHS Health Check services in Hereford from April 2018 onwards.

3. National Context

Size of the Problem

Vascular disease includes coronary heart disease, stroke, diabetes and kidney disease. It currently affects the lives of over 4 million people in England. It causes 36% of deaths (170,000 a year in England) and is responsible for a fifth of all hospital admissions. It is the largest single cause of long-term ill health and disability, impairing the quality of life for many people. The burden of these conditions falls disproportionately on people living in deprived circumstances and on particular ethnic groups, such as South Asians. Vascular disease accounts for the largest part of the health inequalities in our society.

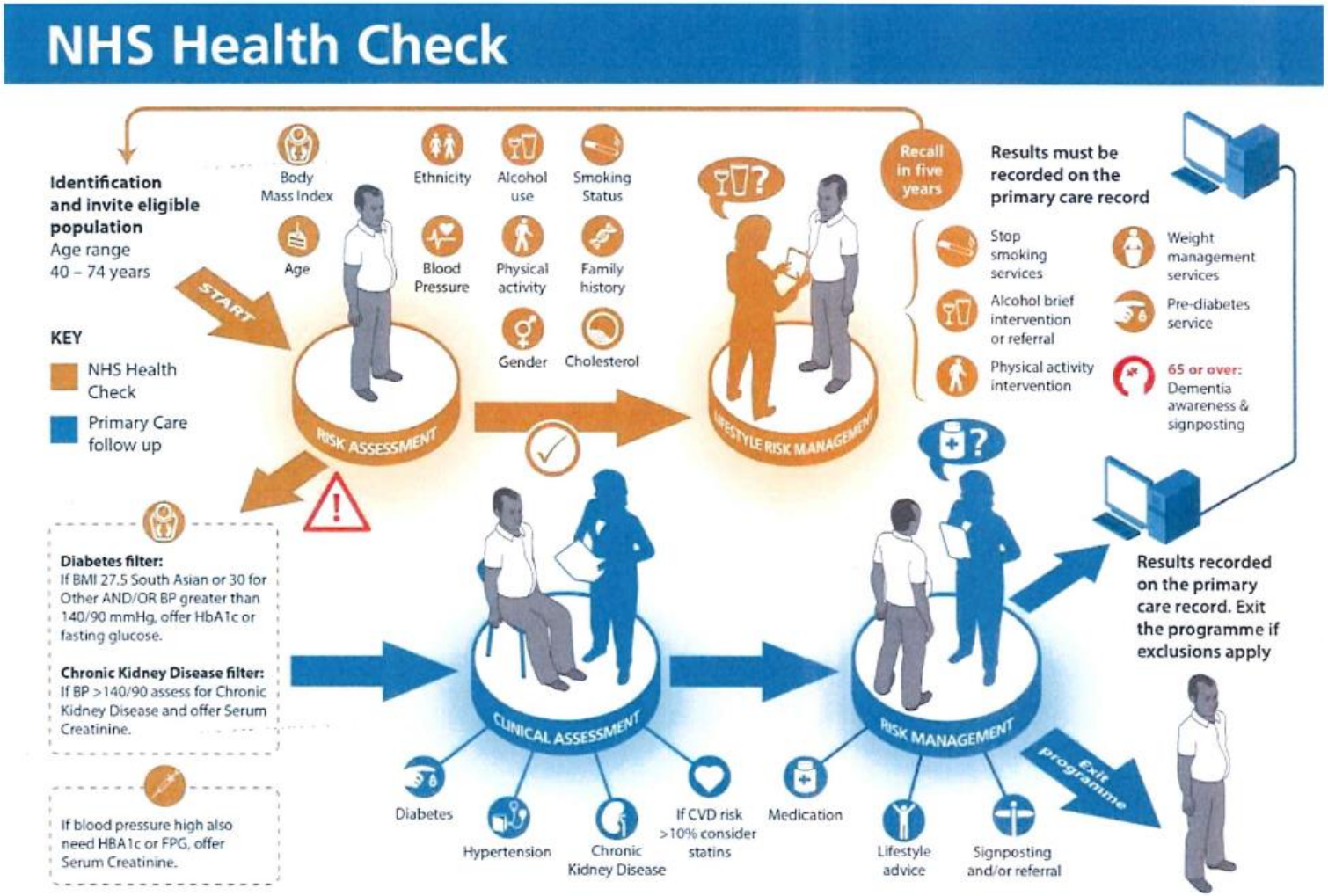
The Policy Context

In 2008 the Government published "Putting prevention first. Vascular Checks: risk assessment and management"[1] which set out the rationale for developing a vascular risk assessment and management programme. This document described a 3 phase model that would:

- Assess an individual's risk of developing CVD using measurement of known risk factors
- Communicate this risk to the individual and provide information on ways they can individually reduce that risk.
- Manage the risk through clinical interventions and/or signposting to lifestyle service that can support individual behaviour change.

The model is shown below in Figure one below.

Figure One: NHS Health Check Model



The Model

The model consists of the following key elements:

- Identification and invitation of eligible population (40 – 74, not already identified as at risk)
- Risk assessment gathering information on following risk factors
    - Age, gender, ethnicity and family history (non-modifiable factors)
    - Body mass index (BMI), blood pressure, cholesterol, smoking behaviour, alcohol consumption and level of physical activity (modifiable factors)
- Calculation of the 5 year risk of developing CVD (using QRISK2)[2]
- Identification of patients at high risk of diabetes, hypertension or chronic kidney disease (CKD).
- Communication of the risk score to the patient and advice on how to modify lifestyle factors to reduce risk where appropriate.
- Signposting to lifestyle change services as appropriate.
- Recording of results on the patient's primary care record.
- For patients at high risk of CVD QRISK2 = 20+ or those identified as high risk of diabetes, hypertension or CKD referral to primary care services for clinical assessment and disease management as required.

Government Targets

The economic model underpinning the programme[3] set original targets of inviting all eligible people once every 5 years and providing checks for 75% of those invited. Whilst the figure for uptake is still an aspiration there is a growing understanding that this may take some time to achieve and there is an interim target of 66% uptake.

Expected Outcomes

The economic model[3] estimated the following national outcomes from the programme if the above targets were met:

- Prevent 1,600 heart attacks and strokes and save at least 650 lives each year
- Prevent over 4,000 people a year from developing diabetes
- Detect at least 20,000 cases of diabetes or kidney disease earlier, allowing individuals to be better managed and improve their quality of life.

4. The Local Context

The figures below are taken from the latest (June 2017) CVD profile[4] published by Public Health England

Figure two shows that between 2004 and 2006 mortality from coronary heart disease in under 75s was significantly lower than nationally. Since that time it has been falling in line with the national trend. During the period 2013 – 2015 the number of deaths in this group in county was 215.

Figure Two

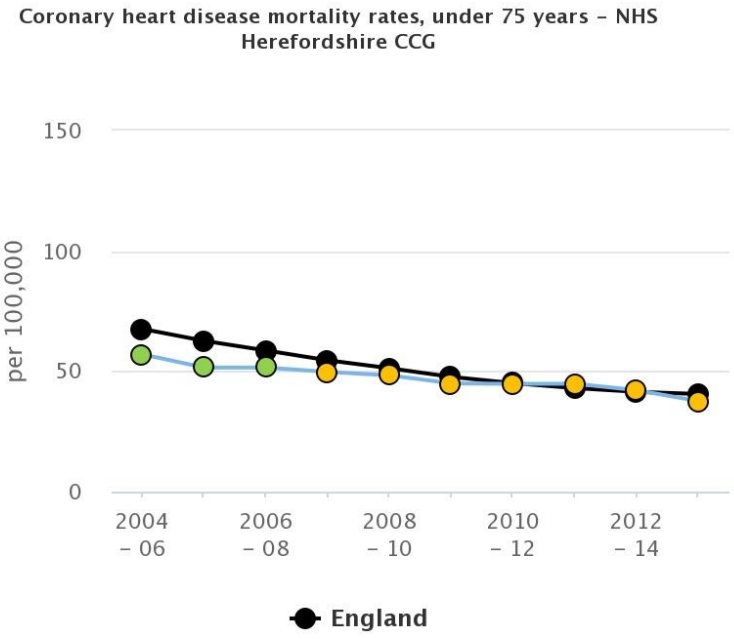
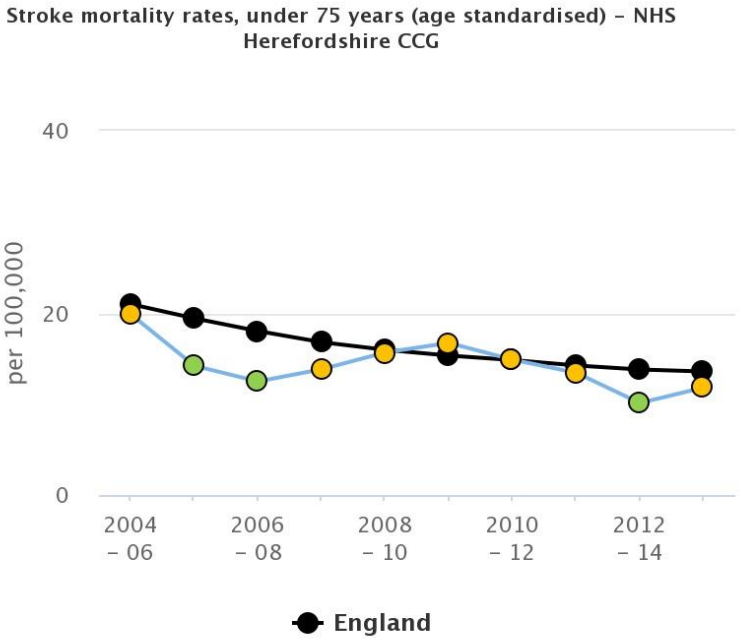


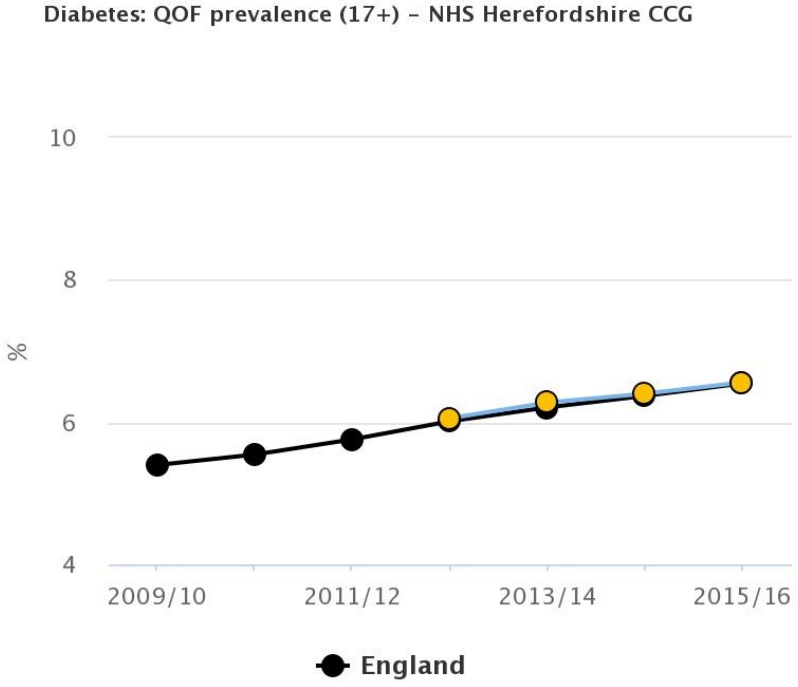
Figure three shows that the local under 75 years mortality rate for stroke, although significantly lower in some years, has, for the most part, been close to the national figure. The number of deaths in the period 2013 – 2015 was 67.

Figure Three



Using figures derived from the number of people 17+ recorded by their G.P. as being diabetic figure four shows that the prevalence locally is closely following the upward national trend. In 2015/16 the number of people 17+ recorded as diabetic were 9,996.

Figure Four



On the basis of these local figures it was not deemed necessary for Herefordshire to attempt to exceed national performance but we should aspire to continue to invite all eligible individuals and increase the uptake rate within the available cost envelope.

Even at the current uptake rate the NHS Health Check Ready Reckoner[5] estimates that in each of the first five years of the programme in Hereford:

- 216 additional people will be taking statins
- 50 additional people will have been diagnosed with diabetes
- 163 additional people will be taking anti-hypertensive drugs
- 136 additional people will be diagnosed with chronic kidney disease.

5. Evidence Review

There has been a vigorous debate about the evidence supporting the implementation of this programme and because it is the first of its kind it is not supported by rigorous evidence from randomised controlled trails of identical programmes.

There is evidence from a range of studies that identification and modification of risks can lead to positive clinical outcomes but these are usually confined to individual risks and specific interventions to moderate them.

The government took the decision to mandate the programme on the basis of the available evidence and the economic modelling published in 2008.

For the purposes of this review Public Health England's (July 2013)[6] note of its approach to the evidence and the more recent (Feb 2017) Expert Scientific and Clinical Advisory Panel (ESCAP)[7]report on emerging evidence have been used as the main sources.

Clinical Effectiveness

The Public Health England (2013)[6] note states:

"For the major non-communicable diseases, epidemiological studies show that a small number of well-known proximal risk factors contribute the bulk of the population attributable risk[8]. These are poor diet, smoking, high blood pressure, obesity, physical inactivity, alcohol use and high cholesterol."

The report recognises that these risk factors can be addressed in a number of ways and points out that the Cochrane (2012)[9] review cited by many as refuting the evidence for NHS Health Checks had technical limitations pointed out by both the DOH[10], and Gidow et al[11], limiting its usefulness as a guide to the benefits of the NHS Health Check programme.

The note concludes:

"For interventions aimed at assessing and reducing individual risk of vascular disease, guidance based on current best evidence has been produced by the World Health Organization (WHO),[12] NICE,[13] and the National Screening Committee.[14] The strong consensus in this body of guidance is that finding and managing those at high risk of vascular disease is likely to be effective and cost-effective. The NHS Health Check in this context adds value as a population approach, in conjunction with other population-wide strategies such as reducing overall consumption of salt and trans fat, in potentially shifting the total risk curve. Models also suggest that using a global score for cardiovascular risk is more helpful than addressing risk factors such as smoking or high cholesterol in isolation.[14]"

The ESCAP[7] report notes that the evidence considered shows the detection of disease to be significantly more frequent among NHS Health Check attendees compared to non-attendees for chronic kidney disease, familial hypercholesterolemia, hypertension, peripheral vascular disease and type 2 diabetes.

There is some evidence of favourable changes on CVD risk factors in people having an NHS Health Check, but these studies are limited by missing data or lack of matched comparator groups**.**

The ESCAP[7] report concludes that there is good evidence that statin prescribing rates are significantly higher (3 – 4%) among people having an NHS Health Check compared to non-attenders.

Cost Effectiveness

Economic Modelling for Vascular Checks (2008)[3] suggests that:

"This policy is highly cost effective, with a conservative estimate of its cost per Quality Adjusted Life Year (QALY) of around £3,000. Although there is some uncertainty in many of the parameters used, sensitivity analysis shows the cost effectiveness of the policy is robust against these uncertainties.

The estimates from the model are that costs will increase over time before levelling out at between £180m to £243m p.a. from Year 6 onwards. The costs in the first 5 years will depend on the speed of roll-out. If we assume roll-out will start at 40% in Year 1 and increase to 100% by Year 5, the estimated cost impact will be £40m in Year 1, increasing steadily to £210m by Year 5."

The ESCAP review[7] identified three studies that demonstrate that targeting the most deprived groups or those with the greatest risk of CVD increase the cost effectiveness of the programme.

There are, however, differences between these studies and the findings and the original economic modelling so the actual financial impact of the programme as planned is still unclear.

6. Current Service Provision

The Council currently has contracts with 6 qualified providers who can undertake NHS Health Checks.

In reality only one provider Taurus Healthcare (G.P. Federation) can arrange for invitations to be sent to eligible patients and so practices are asked to identify patients who have index birthdays in year and invite them for a NHS health check.

This means that over any five year period the majority of eligible patients should receive an invitation (see performance figures below). The downside to this arrangement is that patients are only invited to attend the practice for an NHS Health Check, held mostly, during surgery hours, possibly limiting uptake.

One other provider has carried out NHS Health Checks on an opportunistic basis. The uptake of these limited services has been good but there have been problems in ensuring eligibility and in communications between the third party provider and G.P. practices.

All patients with a QRISK2 score of 20+ are automatically offered a 12 week lifestyle change (weight loss or physical activity) programme with HALO. This provision is managed under a separate contract which is also under review.

All providers use Healthsmart software to collect data at the point of the NHS Health Check. This data is transmitted securely to the G.P. practice for upload to the patient's record. The software is provided by the council under a separate contract.

Anonymised data is available to the council for monitoring purposes.

All qualified providers are payed £37.50 for each completed NHS Health Check verified by Healthsmart. Taurus sub-contract with practices paying for each invitation and each completed NHS Health Check.

Performance

Table One shows the 5 year cumulative performance of NHS Health Check Services from April 2013 to March 2017. Herefordshire has invited 93.6% of its eligible population during this time as opposed to 74.1% nationally. The uptake rate locally has been 47.3% as opposed to 48.9% nationally but because we have invited a bigger proportion of the eligible population than nationally the percentage of the eligible population who have had a check is 44.3% in Herefordshire compared with 36.2% nationally.

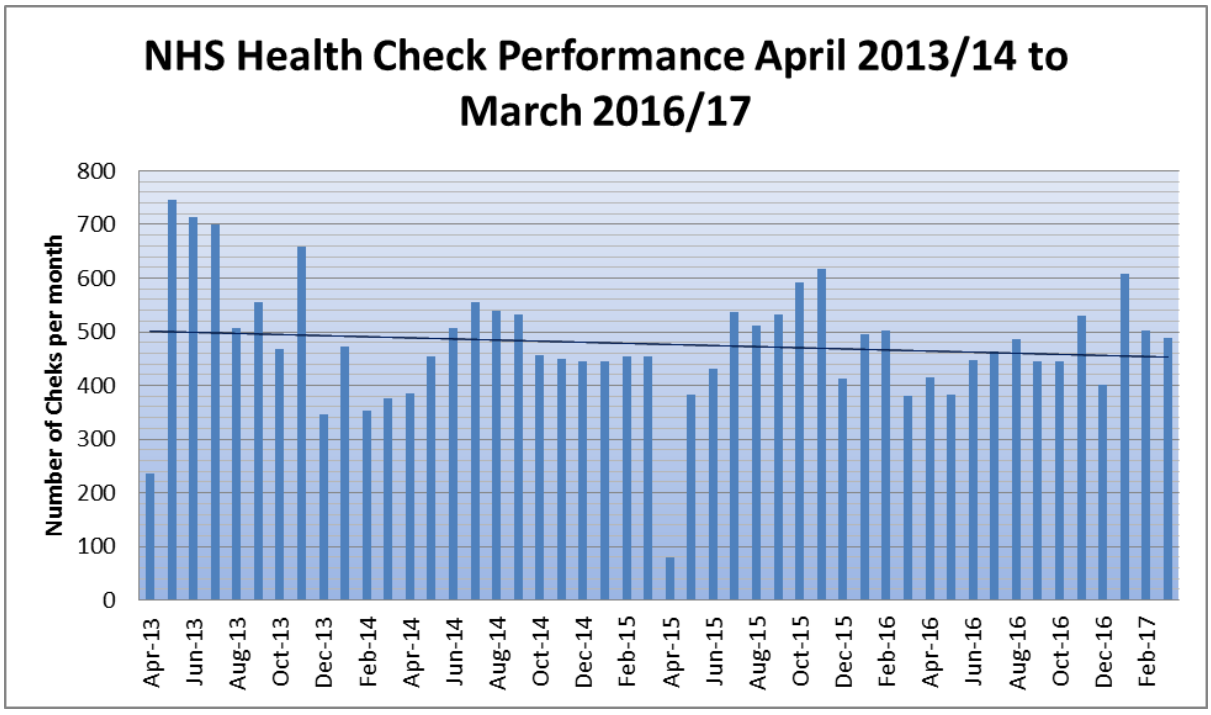
This puts Herefordshire as ranking 27th out of 152 local authorities in England and 2nd out of 15 comparator local authorities for summary performance in respect of NHS Healthchecks.

Table One

Indicator	England	Herefordshire
Total eligible population 2013-2018	15,402,612	51,421
Number of people who were offered a NHS Health Check	11,414,435 (74.1%)	48,147 (93.6%)
Number of people that received a NHS Health Check (percentage of total eligible)	5,580,401 (36.2%)	22,793 (44.3%)
Percentage of people that received an NHS Health Check of those offered	48.9%	47.3%

Figure five shows the number of health checks undertaken per month over the same 5 year period. To reach the government's targets for uptake the monthly number of health checks would need to be 671 (66% uptake) or 763 (75%). It is evident from this figure that there has been a slight downward trend in the number of checks per month over this period.

Figure Five



Of those found to have a QRISK2 score of 20+ only a third accept the invitation to attend a lifestyle course, and only 40% of those actually attend. More than 50% of those attending achieve their goals.

The key improvement issues locally are, therefore, to increase the uptake of invitations for NHS Health Checks and increase the uptake of lifestyle courses by those at high risk.

7. Service Redesign

Financial Context

The initial PHE allocation to Herefordshire for NHS Health checks was £500,000. The budget has reduced to £300,000 for 2017/18. This will be insufficient to meet the original uptake target should performance increase.

From 2019 Public Health services will have to be funded from the business rates and future funding levels are therefore unpredictable.

As a guide, at £5 per invitation and £32.50 per completed health check, with an uptake rate of 66%, the total annual cost of the programme, including supporting software is estimated to be £365,000. These figures do not include the costs of referrals to lifestyle services for high risk individuals, which will also increase with any rise in uptake of checks. There are therefore likely to be pressures on the budget from 2018 onwards and the risks associated with reduced provision.

Operational Context

Current arrangements to determine eligible populations and send invitations work well and we are confident that invitations are reaching the majority of eligible registered patients (see Table one).

Any qualified provider contracts have not proved effective and problems have been identified with opportunistic arrangements

There is a concern that practices are not reaching targets for the number of NHS checks completed. It is not known if this is a capacity issue or if the current offer is not appropriate.

A survey of non-responders has been undertaken which found that the main reason for non-attendance was the inability to get an appointment at a convenient time or place.

It is therefore the intention to contract for the invitations and NHS Health Checks as separate entities.

Invitations can only be sent out via G.P. practices. Health checks can be provided by the G.P. practice (if they hold a contract) or by any other contractor.

It is likely that many people will contact their practice directly but if they do not, or cannot, get an appointment at the practice it is our intention they will be able to arrange one with another provider.

It is the intention, therefore, to identify a provider to act as a co-ordinator, and single point of contact, for all non-GP practice providers to expedite this process.

Invitations will need to explain the full range of options available and include the co-ordinating provider’s contact details.

The current software works well, ensuring a level of consistency of approach amongst providers via its “on screen” prompts. Transfer of data to the practice patient record uses the same method as for other external consultations and is therefore well accepted by practices. The ability of the commissioner to access anonymised data is essential to validate payments and extremely useful in monitoring aspects of the programme such as the uptake by socio economic quintile. As the main contracts are only to be issued for one year initially it is proposed to extend the current software contract by 3 months.

8. Recommendations

- Review budget and performance targets against available finance.
- Continue to contract with primary care to identify eligible population and issue invitations.
- Contract with providers to undertake NHS Health Checks in a variety of locations.
- Identify a co-ordinating provider and contract as appropriate.
- Continue to perform at or above current level to maintain national ranking.
- Extend current software provision by one year.
- All new contracts to be for one year with provision for 1 year plus 1 year extension.

9. References

1. Department of Health. 2008. *Putting Prevention First. Vascular Checks: risk assessment and management.* Available at: https://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwi5wJaut8zVAhXFL8AKHaHvAsIQFggrMAA&url=http%3A%2F%2Fwww.healthcheck.nhs.uk%2Fdocument.php%3Fo%3D227&usg=AFQjCNHKweURkJFMmhSfx_6YJP2pYcRc5Q (Accessed August 2017).

2. Hippisley-Cox, J. et al. 2008. *Predicting cardiovascular risk in England and Wales: prospective derivation and validation of QRISK.* BMJ 2008;336:a332. Available at: http://www.bmj.com/content/bmj/336/7659/1475.full.pdf (Accessed August 2017)

3. DOH. 2008. *Economic Modelling for Vascular Health Checks*. Available at: http://www.healthcheck.nhs.uk/document.php?o=225 (Accessed August 2017).

4. Public Health England. 2017. Cardiovascular Disease Profiles Available at: https://fingertips.phe.org.uk/profile/cardiovascular/data#page/1/ati/153/are/E38000078 (Accessed August 2017).

5. Public Health England. 2014. *NHS Health Check Ready Reckoner*. Available at: http://www.healthcheck.nhs.uk/document.php?o=651 (Accessed August 2017).

6. Public Health England. 2013. *NHS Health Check: our approach to the evidence*. Available at: http://www.healthcheck.nhs.uk/document.php?o=346 (Accessed August 2017).

7. Expert Scientific and Clinical Advisory Panel. 2017. Emerging Evidence on the NHS Health Check: findings and recommendations. Public Health England. Available at: http://www.healthcheck.nhs.uk/document.php?o=1293 (Accessed August 2017).

8. Murray CJ, Richards MA, Newton JN, Fenton KA, Anderson HR, Atkinson C, et al. *UK health performance: findings of the Global Burden of Disease Study 2010*. Lancet. 2013; 381(9871):997-1020.

9. Krogsboll LT, Jorgensen KJ, Gronhoj Larsen C, Gotzsche PC. *General health checks in adults for reducing morbidity and mortality from disease*. The Cochrane database of systematic reviews. 2012; 10:CD009009.

10. DH response to Cochrane review www.nhshealthcheck. nhs.uk/?iid=11

11. Gidlow C, Kumar J, Iqbal Z, Chambers R, Mawby Y. The value of conducting periodic health checks. BMJ. 2012; 345:e7775.

12. World Health Organisation. *Prevention of Cardiovascular disease: guidelines for assessment and management of cardiovascular risk*. World Health Organisation, 2007.

13. National Institute for Health and Care Excellence. *Prevention of cardiovascular disease*. National Institute for Health and Care Excellence, 2010.

14. UK National Screening Committee and Leicester University. The Handbook for Vascular Risk Assessment, Risk Reduction and Risk Management, UK National Screening Committee and Leicester University, 2008 and 2012.