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Behavioural Science and weighting financial remuneration of the NHS Health Check to increase take up of checks

Introduction: Ensuring a high percentage of those offered a NHS Health Check actually receive one is key to optimising the clinical and cost effectiveness of the programme. This is especially important for populations with the greatest health needs, determined by measures such as deprivation, ethnicity and specific risk factors which are known to increase an individual's risk of cardiovascular disease. Achieving good uptake in these groups will impact on the programme’s and local area’s abilities to address health inequalities. Public health commissioners with the support of their own council’s local procurement and legal experts make local commissioning decisions about the NHS Health Check programme and have the flexibility on who they commission to provide the service and what remuneration structures are used.

Purpose: To understand whether weighting financial remuneration to NHS Health Check providers can affect uptake of checks and the demographics of people taking up the offer of a check compared to other methods of payment.

Methodology: An online survey to NHS Health Check Commissioners and Providers was issued in July 2017, designed to gather information on how local authorities are using weighted financial remuneration and its impact on uptake, as well as the behavioural motivations associated with their use. Survey design used the COM-B model to understand behavioural drivers. Following the survey, local authorities using weighted financial remuneration will be approached for interview and production of a series of case studies. Results Data collection is underway, with results expected by December 2017.

Conclusion: The use of incentives, in particular target payments or weighted remuneration based upon patient characteristics remains largely un-researched. In the current climate of budget pressures it is essential that delivery budgets are used to best effect. The use of weighted remuneration has potential to have low (or potentially no) additional cost, but potential population health gain, and this restructuring of the payment process between commissioner and provider should be explored if it can be used more effectively. The conclusions to the research will be fully presented once the results are known.
Uptake of NHS Health Checks in Migrants Living in Hackney and the City of London

Migrants and refugees face multiple barriers to accessing healthcare. The fear of compromising immigration status, the fear of the state, and the fear of perceived costs are just some of the barriers that may inhibit migrants coming forward in primary care. The London Borough of Hackney and the City of London has conducted a two-part research project on the health needs of migrants and refugees locally. First, a quantitative analysis of primary care data found that overall migrants are less likely to take up NHS Health Checks when offered. However, this varied by migrant group: those from North America and Australasia were significantly more likely to take up NHS Health Checks compared to migrants from other parts of the world. Next, interviews with key health professionals and community representatives were conducted to explore the main health issues that affected migrant communities, barriers to accessing healthcare, and healthcare strategies employed when migrants were unable to access care. These results are important for targeting migrant groups who may have a higher disease risk who are not currently taking up NHS Health Checks when offered.
Reducing cardiovascular risk in people with severe mental illness

This oral presentation falls into two themes, Health equity and inequality and Training, workforce development and the competence framework. The talk will describe research carried out by the author: Hardy S, Hinks P and Gray R. (2014) Does training practice nurses to carry out physical health checks for people with severe mental illness increase the level of screening for cardiovascular risk? International Journal of Social Psychiatry. 60 (3) 236-242.

Background: Compared to the general population, people with severe mental illness (SMI) have a higher risk of developing cardiovascular disease (CVD). Authors of clinical guidelines advise annual screening for CVD risk factors with appropriate lifestyle counselling. There are seven recommended elements of this health check: blood pressure, body mass index (or waist circumference), blood glucose, serum cholesterol, diet advice, exercise recommendations and smoking cessation guidance.

Aim: To establish whether training practice nurses increases the proportion of patients with SMI who are screened for CVD risk factors and given lifestyle advice in primary care. Method: A before-and-after audit of 400 patients on the SMI registers in five primary care centres in Northampton, England.

Results: Following the training, the proportion of patients with SMI who received all elements of the health check significantly increased (pre-training: n = 33, 8%, 95% CI = 6-11; post-training: n = 60, 15%, 95% CI = 12-19; RR = 1.82, 95% CI = 1.22-2.72, p = .01).

Conclusion: Training practice nurses about CVD prevention in people with SMI may be effective in increasing the proportion of patients in this group who receive a comprehensive health check. The author will then discuss the more practical issues of cardiovascular screening provision for people with severe mental illness and training nurses in England. People with SMI may not get invited for an NHS health check because those who have a long term condition should have an annual review (SMI is classed as a long term condition). The targets included in the payment incentives which are designed to motivate providers to offer this review do not meet best practice guidance. Due to lack of time and money, the education and training offered to relevant clinical staff is often too brief or not offered at all. The author will offer some ideas and solutions.
Introduction: In 2013 a mandatory dementia awareness raising component for people aged over 65 years was added to the NHS Health Check. Eligible people are provided with information on the signs and symptoms of dementia, and risk factors which may increase the risk of developing dementia. Since 2013 there has been increasing recognition that mid-life actions can reduce the risk of developing dementia, including the NICE public health guidance (2015). Currently public understanding of this potential is very low; in a recent poll only 25% of British adults said they thought it was possible for people to reduce their risk of developing dementia, compared with 83% for diabetes and 49% for cancer (YouGov poll, 2016).

Purpose: The joint Alzheimer’s Research UK - Alzheimer’s Society - Public Health England project sought to understand whether the risk reduction messaging delivered within the NHS Health Check could improve the awareness and understanding on this topic. It involved testing and evaluating approaches to incorporating dementia awareness and risk reduction messages within NHS Health Checks for all people aged under 65 years.

Methodology: Four pilot areas across England offered dementia awareness and risk reduction messaging to all people attending an NHS Health Check. For the 40-64 age group, this intervention could be as simple as highlighting that common cardiovascular risk factors are also risk factors for developing dementia. A sample of 40-64 year olds having the Health Check, and the staff delivering the Health Check were contacted by the evaluation team to assess whether there was improved awareness of the potential to reduce the risk of developing dementia. The evaluation also sought to understand the feasibility of implementing this part of the dementia component to all ages within the NHS Health Check.

Results: The key findings from the evaluation showed that: The public, and health care practitioners think that dementia risk reduction messaging in the mid-life NHS Health Check is useful information and relevant. ‘What’s good for the heart is good for the brain’ is a simple message that service users like and find easy to understand, and providers find easy to deliver. Dementia risk reduction messages connect with Cardiovascular Disease messages, as they are based on similar lifestyle risk factors, such as smoking and physical activity. Adding the risk reduction messages to a standard NHS Health Check conversation for people in ‘mid-life’ doesn’t create any extra burden for health care practitioners. The intervention had a significant impact on increasing public awareness of how to reduce dementia risk, and also on increasing public motivation to change lifestyle behaviour.

Conclusion: The pilots successfully demonstrated the feasibility and awareness raising potential of extending the dementia component of the NHS Health Check to include dementia risk reduction messaging for 40-64 year olds. We are now working to ensure these findings are used to support nationally mandated guidance for all NHS Health Checks to include dementia risk reduction messaging.
Testing innovations to reduce the burden of the NHS Check on Primary Care

Background: Salford Health Improvement Service (HIS) has delivered health interventions through neighbourhood teams, which are embedded directly in the communities they serve since 2004. In 2013, HIS began delivering NHS Health Checks (NHSHCs) in Salford using an outreach and engagement model, with over 2600 NHSHCs delivered opportunistically since then. In addition to this, HIS was awarded a contract for delivering NHSHCs on behalf of specific GP practices in Warrington in 2015 with over 3500 delivered up to September 2017. HIS has found that one of the barriers to engagement in the delivery of NHSHCs by GP practices in Warrington has been the number of follow up practice appointments that the NHSHC generates when PHE best practice is followed exclusively (historically, >30% of patients have been required to attend their surgery for an appointment with a clinician following a HIS NHSHC). HIS has been able to work with practices to develop and test out new, jointly agreed protocols to minimise the number of follow-up appointments required and to support people to look after their health within community-based or informal services following an NHSHC.

Setting: A GP surgery and mobile unit in Warrington, Cheshire.

Methods: HIS developed bespoke pathways with the GP practice to reduce the number of follow-up appointments required by patients, these included:
- HbA1c POCT when diabetes filter triggered and referral to community IGR Intervention for HbA1c reading of 42 – 47mmol/mol
- Direct patient sign up to 24HR digital ABPM for BP of 140 – 180/90 – 110
- Brief intervention of CVD risk using NICE Statin Patient Decision Making Tool with those patients who have a Q Risk of ≥10%, but have no other risk factors arising and have a lower relative CVD risk and ‘healthy heart age’

The above would mean that only those with a Q Risk ≥ 20%, a BP ≥ 180/110, a TC ≥ 7.5mmol, a HbA1c ≥ 48mmol/mol or concerns following dementia brief advice would be advised to make a follow up appointment at their practice. All protocols were approved by the GP practice’s Clinical Director. Data is drawn from the data of 422 patients who attended for an NHSHC delivered by HIS April to June 2017.

Results: Using the protocols outlined above has resulted in seven follow up appointments over the test period (1.7% of total). If these were not applied, 163 people would have required follow up appointments with clinicians (38% in total). This means that there has been a reduction of 96% of primary care appointments resulting from HIS NHS Health Checks.

Conclusion: This evaluation has demonstrated how non-clinical provider services are able to tailor interventions and act responsively to shift resources to meet locally identified needs at relatively short notice, in this case following the delivery of community based NHS Health Checks. It has been clearly shown, that community providers and GP surgeries can work in partnership to reduce the pressure on local primary care and encourage self care and the accessing of community resources by their patients.
Kent Health Checks Equity Audit

The Kent NHS Health Checks Health Equity Audit explores differences in uptake of the Programme across the local health economy. Data for the audit were retrieved from a linked person level database, known locally as the Kent Integrated Dataset (KID).

Purpose: The main objective of the audit is to assess the extent of ‘adverse’ access gradients and to use the results to shape the future deployment of the NHS Health Checks Programme. The audit also provided an opportunity to ‘field test’ the draft NHS Health Checks Health Equity Audit Guidance produced by PHE.

Methodology: A 20 month test cohort of patients were retrieved from the KID (01 April 2015 to 30 November 2016) where the event Read Code = ‘9mC1’ (NHS Health Check invitation). Read Codes ‘8BAg’ (NHS Health Check completed by GP) or ‘8BAg0’ (NHS Health Check completed by third party provider) were used to identify completed checks within the overall invitation test cohort. Only NHS Health Checks provided to Kent registered residents were used in the analysis. Duplicate or ‘null’ pseudonymised NHS Numbers were also excluded from the analysis.

Results / key findings: The original extract identified 105,453 patients who had been sent a NHS Health Check invitation noted as Read Code ‘9mC1’. Following data quality checks (duplicate pseudonymised number, key attributes missing etc.) the original extract reduced to 105,305 patients. The final ‘cleansed’ extract was partitioned into checks not completed within the extract window n=69,866 (66%) and checks completed within the extract window n=35,439 (34%). Key findings: Females were significantly more likely to complete an NHS Health Check when compared to males and there was evidence that this imbalance increased with age. Using the CACI ACORN segmentation tool, patient segments ‘Financially Stretched’ (OR= 0.883, p<0.001) or ‘Urban Adversity’ (OR= 0.748, p<0.001) were significantly less likely to complete a check when compared to segments ‘Affluent Achievers’ (OR= 1.108, p<0.001) and ‘Comfortable Communities’ (OR= 1.077, p<0.001). Case detection rates for hypertension and especially for diabetes were lower than reported in a comprehensive synthesis of equity analyses elsewhere in the country. Detection rates for CKD were higher than those identified in the same publication. Housebound people are less likely to complete a check compared with other groups. No significant access differences were detected when comparing checks conducted in GP settings vs non GP settings.

Conclusions: Using the event level data in the KID, it has been possible to explore the extent of adverse equity gradients associated with access to the Health Checks Programme in Kent. This analysis which patient level data linked to the household segment attribute (ACORN) has proved especially helpful in signalling previously unknown gradients between affluent and deprived communities. These insights are currently being used to inform a nuanced NHS Health Checks Programme aimed at redressing inequity in access especially among deprived communities.
Implementing multiple behaviour change interventions after health checks in primary care: a qualitative study

Background: The implementation of multiple behaviour change interventions for cardiovascular reduction in primary care is suboptimal. Healthcare professionals’ perceptions and primary care resources shape the implementation of such interventions. This study aimed to identify barriers and facilitators to the implementation of multiple behaviour change interventions for CVD risk reduction in primary care.

Methods: Semi-structured interviews, informed by the Theoretical Domains Framework, were conducted with a purposive sample of healthcare professionals working in the implementation of the NHS Health Check programme in south London. Data were analysed using the Framework method.

Results: Thirty participants included ten general practitioners, ten practice nurses, seven healthcare assistants and three practice managers from 23 practices. Qualitative analysis identified three main themes: healthcare professionals’ conceptualisation of behaviour change; views about delivering behaviour change interventions in primary care; and views about the health check programme. Respondents identified the difficulty of sustained behaviour change for patients, the lack of evidence for effective interventions and limited access to appropriate resources in primary care as barriers. The responsibility for facilitating behaviour change and who is best to deliver behaviour change intervention was negotiated. Discussing multiple behaviour change is perceived to be overwhelming for patients and difficult to implement for healthcare professionals within primary care resources.

Conclusions: Healthcare professionals generally recognise the importance of health behaviour change for CVD reduction, they were more sceptical about the potential for successful intervention through primary care. Advancing the prevention agenda will require strategies to support the delivery of behaviour change interventions in primary care. Greater emphasis needs to be given to supporting behaviour change through environmental context. Further research is needed to evaluate current external behaviour change services to improve the intervention outcomes.
Improving practice in diabetes risk assessment as part of NHS Health Check delivery in GP practices.

Introduction: The National Diabetes Prevention Programme (NDPP) has recently been launched in Bath and North East Somerset (B&NES). The two key referral routes into the NDPP are via identification through GP registers of those with non-diabetic hyperglycaemia (NDH) and via the NHS Health Checks programme. We carried out an audit of activity linked to the diabetes risk assessment criteria in the NHS Health Check programme in GP practice in B&NES. Purpose To better understand the potential impact of the NHS Health Check programme in B&NES in generating referrals to the NDPP.

Methodology: Practice based pharmacists completed searches on the patient population across all 26 GP practices in B&NES during the period April 1st 2015 – 31st March 2016. The search criteria were: Had a NHS Health Check during the above period and: triggered the diabetes risk assessment criteria and had a HbA1c or FPG blood test. Practices also completed a template to clarify their practice protocol for follow on care for this patient group.

Results: The searches identified 6,216 people who had received a NHS Health Check during the period 1st April 2015 – 31st March 2016. Of those who had received a health check, 2,074 (33%) met the diabetes risk assessment criteria. The range across practices for meeting the criteria was 24% – 45%. On average 35% (729/2,074) of those who met the criteria had a HbA1c or FPG on record. This ranged from 7% - 62% across GP surgeries. Due to the wide variation, practices were asked to complete a follow on template to clarify their protocol for this patient group. 25/26 practices returned information on their protocol. The key findings from this were: Those practices with the highest percentage of patients with HbA1c or FPG blood tests took HbA1c blood samples at the point of the health check or asked the patient to make an appointment for a HbA1c. Those with the lowest percentage of patients with recorded HbA1c or FPG reported doing a venous random blood glucose test at time of the health check. A range of additional factors were reported including: Not doing blood tests at the time of the health check on those patients with a raised blood pressure. Timing of blood collections affecting decision not to take bloods in the afternoon. Not all staff delivering health checks trained to take blood recommendations. It is recommended that: Practices are reminded of the importance of carrying out follow on blood tests both to identify those who may be eligible for the NDPP, and to identify those with undiagnosed diabetes. HbA1c is the preferred blood test for those that trigger the diabetes risk criteria. A Fasting Plasma Glucose (FPG) can also be used. Random (non-fasting) plasma glucose tests are not recommended. Patients with confirmed raised blood pressure have a HbA1c or FPG in line with best practice guidance. Practices undertaking health checks in afternoon appointments store blood samples overnight (as per lab instructions) for collection the following morning. This audit is repeated to monitor progress on these recommendations.
How do we get the best outcomes from NHS Health Checks? workHORSE: an NIHR-funded Health Technology Assessment of the NHS Health Checks Programme.

Introduction: Previous studies suggest that the NHS Health Checks Programme (NHS-HCP) might be improved by facilitating local commissioning and by including additional conditions. Hence the key question: What is the potential for health and equity gains and cost effectiveness of the NHS Health Check Programme? Building on a previous programme of work around the NHS-HCP, we have commenced a two year NIHR HTA funded project; workHORSE: (working Health Outcomes Research Simulation Environment). This project is just getting underway so the presentation will be an overview; the objective of this session will be to get the views of the participants on the use of this model.

Purpose: The key aim is to provide a validated, open source, open access model enabling local commissioners to quantify the potential of the NHS-HCP by building on our existing, validated IMPACTncd model. Objectives1: Model Development. We will further develop our model to allow for developments and changes to the NHS HCP and the diseases it addresses. We will extend the IMPACTncd model, to develop a validated, stochastic microsimulation environment, including a prototype user interface to model the implementation of the NHS-HCP at local level. The diseases included are heart disease, stroke, diabetes, kidney disease, dementia, atrial fibrillation; alcohol misuse, cancers and chronic obstructive pulmonary disease. 2: Updating the evidence base to support model and scenario development. We will update and conduct a series of focused systematic reviews (SRs) to help inform model development and delivery. Building on the evidence base informing IMPACTncd, we will focus on existing guidelines and systematic reviews. 3: Assessing and comparing strategies for implementation of the NHS-HCP, as specified in the NIHR call. The effectiveness of the Health Check Programme will be explored using several measures. Health economics will include cost utility (cost per quality adjusted life year) and distributive equity, with extensive probabilistic sensitivity analyses and model validation. 4: Engaging with stakeholders to powerfully strengthen the user perspective to inform desirable features and scenario design. We will recruit and engage a diverse group of stakeholders in four workshops to refine features of the user-friendly model and identify additional scenarios. This will be integrated with model development and evidence synthesis. 5: Developing a sustainability and implementation plan to deploy workHORSE as a user-friendly web-based decision model at local levels.

Results: Our pilot studies suggest the NHS-HCP may need to be targeted and performance improved, to be cost effective and reduce health inequalities. For England we found that universal screening might prevent or postpone approximately 19,000 cases and 3000 deaths; concentrated screening 17,000 cases and 2,000 deaths. Our local evaluation for Liverpool found that current implementation was not likely to reach 80% probability of cost effectiveness before 2040, while maximised performance was cost effective by 2030 and a more targeted scenario was cost effective by 2040 while also reducing inequalities.

Conclusions: We invite feedback for this HTA which aims to understand the effectiveness and cost effectiveness of NHS-HCP and the impact of different scenarios and assumptions.
HEalth Check TRial (HECTR): Risk-tailored invitations to improve uptake of NHS Health Check

Introduction: NHS Health Check is a national CVD risk assessment programme for adults in England aged 40-74 without a chronic condition. Nationally, uptake of Health Checks remains around 50%, below the level on which original modelling for cost-effectiveness was based. Method of invitation has been identified as a strong predictor of uptake. There is some evidence that verbal or telephone invitations yield the highest levels of uptake, yet postal invitations remain most common. Changes to the national letter using behavioural insights have shown some benefits for uptake. Our interest was in the use of using personalised risk messages to increase the personal relevance of invitation letter to increase uptake.

Purpose: To test the impact on NHS Health Check uptake of letters tailored to patient’s level of CVD risk, compared with the standard national letter and telephone invitations in the HEalth Check TRial (HECTR).

Methodology: A three-arm pragmatic randomised controlled trial (RCT) was conducted across 10 Staffordshire general practices, comparing three methods of invitation: Standard letter (SL), Telephone (TP) or letter personalised to patient’s CVD risk (PL). Three types of personalised letters with messages appropriate to low, moderate and high levels of CVD risk were developed in conjunction with the PHE Behavioural Insights team, using expert and public consultation to check acceptability and ease of understanding. Within practices, patients who were eligible for a HC were randomised to one of the three invitation methods and were invited up to three times (between October 2015 and February 2017). Uptake in each groups was explored in terms of the likelihood of attendance.

Results: In total, 6244 patients were randomised to the three groups (SL n=2019, TP n=2117, PL n=2108); 1214 were excluded, leaving 4815 for analysis (SL n=1516, TP n=1270, PL n=2029). Mean age was 50.43±8.12 years and 75% were in the youngest age category. There were slightly more women than men. The majority were White British and urban dwellers, but there was good representation across the quintiles of deprivation. Most patients were classified as ‘low CVD risk’ (89%). Overall, 1694 (35.2%) patients attended a Health Check (32.7% SL vs. 43.8% TP vs. 31.7% PL). Unadjusted logistic regression showed that compared with the SL group, uptake was significantly more likely in those receiving a telephone call (Exp(B)=1.61, 95%CI=1.38-1.87, p<.001), but not in those receiving a personalised letter (Exp(B)=.96, 95%CI=.83-1.10, p=.544). This was largely unchanged when adjusted for age, gender, ethnicity, deprivation and CVD risk (TP-Exp(B)=1.69, 95%CI=1.42-2.01, p<.001; PL-Exp(B)=1.05, 95%CI=.90-1.23, p=.540). However, there were between-practice differences (invitation effect was observed in only 6 practices) that are being explored through multi-level analyses (ongoing).

Conclusion: Preliminary analysis indicated that telephone invitations yielded significantly higher uptake than the standard letter, but the personalised letter did not. Within the highest CVD risk group, there was a trend towards higher uptake in the PL (vs. SL) group, but numbers were too small to be conclusive. The findings from multi-level analyses will be reported.
The CVD ‘Risk Report’, an intervention to support cardiovascular risk communication in NHS Health Checks: results from the pilot trial.

Introduction: A combined discussion aide and results card (Risk Report) was developed according to the EAST framework, risk communication principles and through focus groups with clinical staff. The personalised ‘Risk Report’ was embedded in the EMIS system, and could be easily auto-filled with Health Check results, printed and used as a discussion aide and then taken away by the patient, and saved to the electronic health record.

Purpose: A mixed methods pilot randomised trial was undertaken to assess feasibility of use in NHS Health Checks and gather qualitative feedback on layout, understandability, usage and impact of the Risk Report.

Methodology: Three general practices in Newham CCG recruited patients. Intervention patients received the standard NHS Health Check plus the addition of a personalised Risk Report. Control patients received the NHS Health Check according to standard practice (no results card or discussion aide). Both groups returned after 3 months for a second NHS Health Check, where they all received a Risk Report. Patients were then purposefully sampled according to age, gender, ethnicity and QRisk score and invited to take part in a semi-structured interview in a private room at the clinic. The researcher introduced the Risk Report part way through the interview as a prompt. Thematic analysis of the data was undertaken. Semi-structured interviews were also held with the Health Care Assistants (HCAs) who had delivered the NHS Health Checks and Risk Reports. Statistical analysis was undertaken to assess any differences in QRisk score change between the two groups over the three month period.

Results: 200 patients were enrolled (101 intervention and 99 control). 34% of patients returned for a second Health Check. 18 patients were interviewed, as well as two Health Care Assistants. In this small study, we found no significant differences in QRisk score change between groups over three months. Most patients were positive towards the Risk Report, with some mentioning it before prompting. Heart age was more readily recalled than QRisk score, but when introduced, the Risk Report prompted more detailed QRisk recall and understanding. Some patients made significant lifestyle modifications, and used the Risk Report as a reminder of results and as a motivational tool. Patients shared the Risk Report and advice with their family and friends. HCAs said the Risk Report was simple to use, supported more detailed risk discussions and wanted to continue using it. A minority of patients thought the NHS Health Check programme lacked any utility for them.

Conclusion: This qualitative study found the Risk Report to be acceptable and understandable, easy to use, supportive of detailed risk communication and facilitative of discussions among family and friends beyond the consultation. In contrast, the quantitative study highlighted the difficulty of assessing the impact of behavioural interventions on risk factors in low risk populations. This pilot study supports further roll out of the Risk Report and qualitative evaluation in more diverse settings as an acceptable, low cost, easy to use intervention to support risk communication in NHS Health Checks.
Scaling up: A Familial Hypercholesterolaemia Service Fit for England

Introduction: Familial Hypercholesterolaemia (FH) is an inherited condition that affects 1 in 250 people. It results in very high cholesterol levels and an increased risk of early CHD. FH has gained prominence and is now part of the NHS Health Check pathway. However, only a third of England’s population have access to FH services.

Purpose: To describe how FH services have been scaled up from research pilots to population based services, and to consider how best to facilitate this scale up across the rest of England.

Methodology: The components of Mark Moore’s model for creating public value (Harvard, 1995); public value, authorising environment and operational capacity; will be used as a framework for describing how services are scaled up. The Wessex FH service will be used as a case study. There will be some emphasis on the role of public health in supporting service development and implementation: at a national level within PHE, in local settings and in academia.

Results: Public value: Are FH services cost effective? NICE guidance in 2008 demonstrated that FH services were highly cost effective, though commissioners were slow to respond. Research in Wessex demonstrated that cost effectiveness could be increased through generic statin use and pathway redesign. New 2017 NICE guidance further encourages the development of new regional services. Authorising environment: is there political (big “P” and little “p”) approval for FH services? There are three main challenges: (i) CCGs are the lead commissioner and so have to coordinate themselves to develop regional services, (ii) austerity, and (iii) the reductions in myocardial infarctions and revascularisations take years to materialise but most costs are up front. Regionally commissioners have had varying degrees of success. Wessex succeeded through interdisciplinary cooperation. National drivers are: policies such as DH’s CVD Outcomes Strategy (2013), the increased focus on CVD prevention, the 100,000 Genome Project, the NHS Health Check; funding from charities such as British Heart Foundation and HEART UK; further health economic research; and national champions such as Prof Huon Gray and Prof Steve Humphries. Operational capacity: who can deliver an FH service? There is regional variation on whether the FH care pathway is led by GPs or specialists. In Wessex there were concerns about flooding lipid services and potentially unaffordable level of requests for genetic testing. Evaluation of the new FH service provided assurance that concerns were unfounded. Nationally new 2017 NICE guidance should encourage and facilitate the development of new regional services. Conclusion: The commissioning structure of the NHS in England means that a national service cannot be imposed from the centre. However new regional services continue to be developed. Until regional services cover the whole of England there is a danger that inequalities will be exacerbated.
Moving Healthcare Professionals: A national approach to integrate physical activity within healthcare

Introduction: Public Health England (PHE) published the national physical activity framework Everybody Active, Every Day in 2014. It set out the need for action across four domains at National and Local level in order to increase and sustain physical activity levels across England. One of the domains is ‘Moving Healthcare Professionals’ a multi-component programme that has been developed through a partnership with Sport England and will look to educate and up-skill healthcare professionals to deliver physical activity advice as well as a number of other pilots to demonstrate a cross cutting approach to Physical Activity promotion in health care including the importance of physical activity in the the prevention and treatment of cardiovascular disease. The programme, its aims and learning will be of value to share with clinicians and commissioners due to the significant inverse associations of physical activity with mortality and CVD morbidity.

Activities undertaken: The programme consists of a number of activities: Physical Activity Clinical Champions peer training scheme. Including a network of GP’s, Nurses and Allied Health Professionals champions across England. Expansion of Continuing Professional Development E Learning modules, Physical Activity ‘prescription pad’ pilot, Updating and dissemination of physical activity and health evidence base, Pilot Sport and Exercise medicine integration in secondary care, Promote and increase uptake of medical undergraduate resources. This will all be underpinned by a comprehensive and independent impact and process evaluation by the National Centre for Sport and Exercise Medicine.

Results: This presentation will highlight the results from Phase 2/3 of the pilot clinical champions training programme - where 245 sessions were delivered by clinical champions between September 2015 and mid-July 2016 in which 3240 participants completed the training (>82% GP’s) With the evaluation stating that the programme was successful in meeting its learning objectives and the follow-up results showed that the training had a small positive effect on the participants’ confidence to motivate patients to increase physical activity. We will also reflect on the impact of the next phase of the programme and the effectiveness of a multi-component approach to engaging health care professionals as set out in the activities above.

Conclusions: The evaluation highlighted the positive impact that a one-time training session can have on primary care professionals’ values and confidence in relation to physical activity. However further evaluation is needed to assess whether this enhanced confidence leads to a change in physical activity promotion practices. Which is why PHE working in partnership with key stakeholders have secured funding form Sport England to expand the programme and further test the activities set out above from 2017 – 2018 including training a further 4400 medic health care professionals, 1600 trainee healthcare professionals and 12,000 nurses.
Cost effectiveness of cascade testing for Familial Hypercholesterolaemia, based on data from FH services in the UK

Introduction: Familial Hypercholesterolaemia (FH) is a vastly under-diagnosed genetic disorder associated with early development of coronary heart disease (CHD) and premature mortality, which can be substantially reduced by effective treatment. Patents have recently expired on high-intensity statins used to treat FH, reducing treatment costs. FH has been added to the NHS Health Check pathway, but only a third of England's population have access to a FH service.

Purpose: Here we build a model using UK data to estimate the costs and benefits of DNA testing of relatives of those with monogenic FH. This demonstrates the cost effectiveness of FH services. Improving access to FH services will be good for cardiovascular disease prevention.

Methodology: A decision tree and a Markov model were used to estimate lifetime costs and cost effectiveness of cascade testing, using UK data from audit and on-going cascade services.

Results: The estimated Incremental Cost Effectiveness Ratio (ICER) was £5,981 and the overall net marginal lifetime cost per relative tested was £2,762. More than 80% of lifetime costs were attributable to diagnosis tests incurred in the first year. In UK services, 0.23 of tested index cases were found to be mutation-positive. For each mutation-positive index case, 1.33 relatives were tested; an overall rate of 0.31 tested relatives per tested index case. If the number of relatives tested per tested index case rose to 3.2 (projected by National Institute for Clinical Excellence in 2008) the ICER would reduce to £2,324 and lifetime costs to £1,073.

Conclusions: Cascade testing of relatives of those with suspected FH is highly cost effective. The current Europe-wide high levels of undiagnosed FH, and the high levels of morbidity and mortality associated with FH, mean that adoption of cascade services should yield substantial quality of life and survival gains. [This study has been published in the European Heart Journal: https://academic.oup.com/eurheartj/article-lookup/doi/10.1093/eurheartj/ehx111]
Let’s talk about Physical Activity: Physical Activity Clinical Champions training and using the GPPAQ in a health check setting.

Introduction: Public Health England (PHE) published the national physical activity framework Everybody Active, Every Day in 2014. It set out the need for action across four domains at National and Local level in order to increase and sustain physical activity levels across England. One of the domains is ‘Moving Healthcare Professionals’ a multi-component programme that has been developed through a partnership with Sport England and will look to educate and up skill healthcare professionals to deliver physical activity advice as well as a number of other pilots to demonstrate a cross cutting approach to Physical Activity promotion in health care. The main tool to deliver this is the Clinical Champions peer to peer training session to HCP’s and would compliment the the GPPAQ which is used as part of the NHS Health Check programme. To date over 350 sessions have been delivered by medic clinical champions between September 2015 and 2017 in which over 4500 have completed the information session. With the initial evaluation in 2016 reporting that the programme was successful in meeting its learning objectives and the follow-up results showed that the training had a small positive effect on the participants’ confidence to motivate patients to increase physical activity. The evaluation also highlighted the positive impact that a one-time training session can have on primary care professionals’ values and confidence in relation to physical activity.

Aim of session: The NHS Healthcheck 4 years on research study (2016) reported that "...41.4% who were obese (13,309/32,133) received advice on physical activity" and "...referrals for physical activity, 13.4% (1780/13 309) were in people at high CVD risk and 86.6% were in people at lower risk" - a large proportion of clinicians who would benefit form more advice on Physical Activity and its impact on overall health and specific conditions. The aim of this session is to deliver the Physical Activity Clinical Champions programme to Health Care Professionals, to offer a tutorial to HCP’s on how to complete the General Practitioners Physical Activity Questionnaire and furthermore how to offer a brief intervention on increasing Physical Activity levels.

Session objectives for CVD Conference Session: 1. Become familiar with the definitions, guidelines and evidence base for physical activity and inactivity. 2. Understand the importance of physical activity for prevention and management of disease - with a focus on CVD. 3. Develop confidence in integrating physical activity and brief interventions into clinical practice. 4. Learn how to utilise the behaviour change model to apply brief interventions into clinical practice. 5. Deliver a tutorial on the use and the technicalities of using the GPPAQ tool. The session will be delivered by a peer GP Clinical Champion and supported by PHE stuff from the Physical Activity programme team and the knowledge and intelligence teams.
Community blood pressure testing in Haringey and Islington to improve detection rate

Introduction: Cardiovascular disease is a leading cause of death in Haringey and Islington. Hypertension is a risk factor for cardiovascular disease. Large numbers of people in Haringey and Islington have one or more risk factors for cardiovascular disease; approximately 1 in 5 people smoke, 1 in 5 people have high blood pressure and nearly 2 in 3 people are overweight or obese. There are an estimated 62,000 people with high blood pressure in Haringey alone, but only half of these are diagnosed and controlled. Therefore, early detection and management of high blood pressure is a key priority for this borough.

Purpose: The aim of this project is to identify 10,000 new undiagnosed cases of hypertension over two years using a community setting model in Haringey and Islington. The target population were the ‘hardest-to-reach’ groups – in terms of both specific ethnic groups and deprivation and those who are not identified through primary care. This project would add to our overall efforts to improve hypertension detection, reduce variations amongst GP practices and reduce prevalence of stroke.

Methodology: We were awarded some funding from the British Heart Foundation (BHF) in May 2017 for 2 years to implement the project across Haringey and Islington. Volunteer community sector organisations (VCS) delivery partners were Tottenham Hotspurs Foundation, Bridge Renewal Trust, Embrace (in Haringey), Manor Gardens and Octopus Community Network (in Islington). A patient pathway was developed according to NICE guideline (CG127) to refer patients to primary care by trained volunteers. An on-line software programme was developed by “To Health” to be used by the volunteers to recode the blood pressure measurements, smoking habits and alcohol intake of the residents. The software was designed to generate an instant electronic referral letter to be sent to the resident’s GP (with their consent) and details added to the medical records. A bespoke training programme was developed for the volunteers and delivered by the Stroke Association. The volunteers were also asked to complete a MECC (Making Every Contact Count) training course offered by the Haringey and Islington Councils. Blood pressure was taken in various community settings (e.g. supermarkets, libraries) and outreach events. The volunteers also signposted the residents to various lifestyle services (including the local One You websites) and provided them with information about blood pressure prevention, detection and management. Eligible residents were offered a referral for a full NHS Health Check.

Results: 80 volunteers were trained by the Stroke Association to perform the blood pressure testing. The checks were performed in a number of community settings and events. Demographic data, smoking and alcohol habits as well as blood pressure measurements were collected. The results of the first data extraction will be analysed by the end of December 2017.

Conclusion: Community based blood pressure testing may potentially be a good model to enhance partnership working with the VCS organisations, up-skilling the volunteers to raise awareness about high blood pressure and help the primary care to improve the detection rate.
Cardiovascular disease self-management apps: Barriers to adoption

Introduction: The burden of cardiovascular disease continues to grow globally with reduced life expectancy and major direct and indirect costs. Managing the condition requires both high quality clinical care and effective self-management. Patients with cardiovascular disease play a key role in the day-to-day management of their chronic condition. Digital health tools such as mobile health apps can potentially support patients’ self-management of their conditions, especially that mobile phones have a high rate of utilisation all over the world, across different socioeconomic groups, low literacy and racial/ethnic minorities. However, the adoption of mobile apps as self-management tools remains low amongst patients with cardiovascular disease.

Purpose: The purpose of this review is to identify barriers to the adoption of self-management apps amongst patients with cardiovascular disease and provide recommendations to overcome the barriers to patients’ engagement with this technology.

Methodology: A comprehensive literature search (2014-2017) in Embase, Cochrane, Scopus, ScienceDirect, MEDLINE and Google Scholar was conducted to identify relevant publications. We included studies that examined the barriers to adoption of self-management mobile phone apps relating to management and/or prevention of long term conditions. Thematic analysis was used to highlight the barriers to adoption of the technology among patients with long-term conditions in general and cardiovascular disease in particular.

Results: We identified 23 main barriers to patient’s adoption of self-management mobile apps. These can be patient barriers: e.g. health and technological illiteracy; technology access barriers: e.g. limited internet access; technology design barriers: e.g. lack of customization to patient’s preference; provider barriers: e.g. low integration into provider work flow; and health system barriers: e.g. limited institutional support. In order to overcome these challenges, the following facilitators should be promoted; patient engagement, provider productivity, technology accessibility and high quality integrated health systems.

Conclusions: The use of technology to enhance self-management of cardiovascular disease and other long-term conditions has led to positive patients outcomes despite the hindered adoption. This review highlights the factors affecting patients’ adoption of self-management apps, and the potential opportunities to facilitate patients’ engagement. Future research such as case-study reports on successful large-scale rollouts of integrated self-management apps/ mHealth strategies could provide insights on how barriers have successfully been overcome.
Improving Access To Screening: Exploring The Role Of Point of Care Testing For People With A Learning Disability.

Abstract Theme: Point of care testing

Introduction

Point of care technology (POCT) is available for diagnostic and screening purposes including for cardiology, diabetes and hearing loss assessment and can be used by non-scientists (McShea 2015). Availability of a minimally invasive tool for diagnosis or screening and its potential role for vulnerable or hard to reach individuals raised the question of whether this might be of value for people with a learning disability. The views and experiences of people with learning disability and associated practitioners on the use of POCT for diagnostic testing as a reasonable adjustment were explored as part of a larger evaluation (Giles, Gordon & Ling 2017). This paper focuses on service users’ views due to paucity of available evidence.

Purpose: To explore current views and experiences of people with learning disability of diagnostic testing including POCT, to identify alternative models or reasonable adjustments to improve access and experience of it.

Methodology: A qualitative approach (Mays and Pope 1995, Seale and Silverman 1997) was taken to gain insight into the acceptability and experiences of the use of POCT for people with a learning disability. Semi structured focus groups with service users (n=10) were recorded and transcribed verbatim and analysed using thematic analysis.

Findings: While participant responses to seeing demonstrations of POCT and talking about its potential use were generally positive, there was a level of anxiety in relation to needle tests and seeing demonstrations of the POCT kit for the first time. Those who had already experienced or seen the test did not report the same levels of anxiety, however awareness of POCT was low; only 2 of the service users reporting having had a test using finger prick sampling. Use of strategies or adjustments to support people with learning disability and their carers emerged as essential to reducing anxiety in service users. This included enough time for preparation before tests, such as managing expectations using appropriate written, visual and/or verbal information and demonstrations and opportunities to ask questions. Service users reported needing clear explanations about POCT, what the equipment does, what it is for and what will happen to them during the test. For delivering tests practitioners’ knowledge of individual needs, clear communication, normalising of screening and support from a known carer during tests were crucial. Stories from peers also appeared to influence engagement. In engaging with POCT, the use of stories, peers and humour emerged as both important and successful for service users.

Conclusion: There is need to raise awareness of what POCT is, and service users’ initial introduction and experiences may be key to how they react to subsequent tests and their future engagement. Individual, appropriate and timely preparation/demonstration and delivery of tests to minimise anxiety appear successful. A best practice guide is currently being developed from the study findings to prepare service users and healthcare workers involved with POCT screening in General Health Checks for adults who have learning disabilities.
Opportunities to enhance FH detection via the NHS Healthcheck Programme

Introduction: Familial hypercholesterolaemia (FH) is associated with elevated Low Density Lipoprotein Cholesterol (LDL-C) and early development of atherosclerosis and coronary heart disease (CHD). Untreated, at least 50% of men with FH will develop CHD by age 50, and 30% of women by age 60. Treatment with statins brings the risk of CHD in FH down to a level similar to that of the general population. The prevalence of FH is now thought to be around 1/250, which equates to approximately 250,000 people. Purpose: 50% of first degree relatives will also inherit the genetic mutation and despite NICE recommendations in 2008 to introduce ‘cascade’ testing for immediate family members of those affected by the condition, no systematic UK-wide programme exists today. The BHF FH programme interrogates and analyses the local and system-level barriers and enablers to enhance more co-ordinated and systematic approaches to identifying more FH cases through maximising opportunities for cascade testing.

Methodology: The British Heart Foundation (BHF) has invested £1.5m in FH, funding 27 FH nurses across 12 UK sites over two years. The aim of this investment was to develop, implement and roll out FH cascade testing services in England and Scotland, via referral of index cases identified by routine cholesterol tests; and ensure access to appropriate care and support once diagnosed with FH.

Results: To date, BHF funding has enabled the: Development of new approaches to FH cascade testing services across 12 UK sites, working across traditional primary and secondary care boundaries. Promotion of awareness of FH in communities (public and professional). Identification of new ways of identifying people (index cases) with FH. The programme has to date identified over 2000 new FH index cases. Independent economic analysis has demonstrated the cost effectiveness of cascade testing. The researchers found this model of testing and treatment to be far more cost effective than the current threshold set by NICE in order to determine which treatments are likely to be recommended for use in the NHS. Appropriate training and support for staff, the need to more fully understand local population prevalence and the need for a local business case with evidence of clinical impact, effectiveness and robust cost modelling were highlighted as key issues to address to support service implementation and sustainability. Access to data and opportune data sharing agreements have resulted in significant benefits in some areas together with a balanced approach to shorter v longer term efficiencies and risk sharing with other CCGs or health economies.

Conclusion: Cascade testing of relatives of those with suspected FH has been proved to be highly cost-effective and increasing the numbers of monogenic diagnoses in index cases would significantly increase cost effectiveness. In addition, subsequent reduction in CVD morbidity and mortality would yield significant quality of life gains in addition to reducing pressures on NHS budgets. The NHS Healthcheck programme provides additional opportunities to raise awareness and enhance detection of FH in the general population.
Optimizing effectiveness of the NHS Health Check programme in Hull - Delivering CVD services in local government

Introduction: In recent years, between 2013-14 and 2016-17, Hull has been achieving 33% uptake of NHS Health Checks which is lower than the national figure of 49%. In 2016-17 provision was remodelled to drive increased uptake (having regard to economy, efficiency and effectiveness) to achieve the best possible outcomes from the NHS Health Check programme for people in Hull.

Purpose: Using data, intelligence and consultation, a remodelled service was shaped to address the needs of service users. A mixed model broadened access to the programme by establishing four strands of risk assessment activity within GP Practice, Pharmacy, Community Outreach and Workplace. Remodelled provision was designed to optimize financial resources. Targeting resources through incentivizing performance in Primary Care to increase reach to eligible patients with the highest health needs. Payment to Practices and Pharmacies is now based on a single price per check cost - with a premium available when uptake is achieved based upon parameters of high risk. A robust procurement exercise was undertaken to enable the Community Outreach provision (including delivery in workplace settings). In 2017, the contract was awarded to ICE Creates Limited. As behaviour change specialists (working in partnership in three domains: Insight, Co-create, Engage) ICE bring an exciting innovative approach to delivering the programme in Hull. Remodelled provision was designed to optimize community resources. The Community Outreach service provider is integrated with other Public Health improvement programmes and Local Area Teams to maximise the efficiency of targeted opportunistic testing and encourage local action to promote uptake. The service also works in partnership with community leaders to communicate key messages with non-English speaking groups.

Methodology: Achieving remodelled provision was a process rooted in change (with financial challenge) to re-evaluate need and re-assess what the NHS Health Check programme should look like. The approach harnessed innovative thinking on ways of working and service delivery.

Results: Initial data is encouraging as the number of people having a check in Q1 of 2017-18 compared to the average number of people having a check in Q1 of 2013-14, 2014-15, 2015-16 and 2016-17 shows a 12% increase. The number of Black and Minority Ethnic (BME) people having a check over this same period shows a 10% increase. Prior to the Community Outreach service, BME populations were significantly under-represented within the programme. Data recorded in Q1 of 2017-18, with remodelled provision, has been achieved in the context of a 60% budget reduction for the NHS Health Check programme since 2013-14.

Conclusion: Early progress must be monitored over a longer period of time to assess impact. Scrutiny of the delivery model for efficiency and value (i.e. doing more with less) will be on-going, along with assessing both quantitative and qualitative data to understand what people need and want from a NHS Health Check service moving forwards.
Progress of the Healthier You: NHS Diabetes Prevention Programme: referrals, uptake and participant characteristics

Introduction: The Healthier You: NHS Diabetes Prevention Programme has been developed to prevent or delay onset of Type 2 diabetes in those already identified in England to be at high risk (defined as having non-diabetic hyperglycaemia (NDH) (HbA1c 42-47 mmol/mol and/or fasting glucose 5.5-6.9 mmol/l)), identified through either routine clinical practice, or the NHS Health Check Programme. The Healthier You programme provides behavioural interventions to enable weight loss, increased physical activity and improved nutrition through a minimum of 13 face-to-face group-based sessions, over at least 9 months, constituting at least 16 hours of contact time. Each local health economy involved in the programme undertakes, via a memorandum of understanding with NHS England, to identify and refer into the Programme a target number of eligible individuals, based upon local expected prevalence of NDH and enabling infrastructure to identify and refer.

The programme was launched in April 2016 following a demonstrator phase, with 27 Local Health Economies referred to as the ‘first wave’, covering approximately half of the population of England. There was a phased implementation for the first wave between April and December 2016 with the first referral received in June 2016.

Purpose: To describe early progress of the Healthier You: NHS Diabetes Prevention Programme, a behavioural intervention designed to prevent or delay onset of Type 2 diabetes in those in England already identified to be at high risk. The paper examines numbers of referrals, percentage participation of those referred, and participant characteristics.

Methods: A minimum dataset is gathered by Programme providers, including participant demographic and clinical data. These analyses examine the data for all referrals received by providers between June 2016 and the end of March 2017.

Results: There were 43,603 referrals made into the programme, exceeding targets over this period by 16%. Of those referred, 49% have taken up the programme, higher than the 40% modelled assumption. There was no significant difference in uptake by sex (p=0.106). Attendance rates varied significantly by sex, age group, ethnicity and deprivation. Attendance rates were significantly lower for males compared to females (74 (CI 72-75) vs. 87 (86-89)) per 100,000; p<0.001) and increased as age group increased (p<0.001). There was a significantly higher attendance rate for BAME participants compared to White participants, (119 (116-123) vs. 68 (67-69) per 100,000; P<0.001). Attendance rates varied significantly by deprivation with higher rates in the most deprived quintile versus the least deprived quintile (72 (69-74) vs. 60 (57-62) per 100,000; p<0.001). However, there was a significant interaction between ethnicity and deprivation (Wald=33.3, df=4, p<0.001)

Conclusion: This paper describes progress of the Healthier You programme and demonstrates referral numbers and percentage uptake in excess of prior modelled values. Participant characteristics suggest that the programme is reaching those who are both at greater risk of developing Type 2 diabetes and who typically access healthcare less effectively.
Developing a quality driven training programme

Introduction: We believe that those who deliver NHS Health Checks are critical to the success of the programme. We also believe that anyone who delivers a check should know why and how they are asking specific questions; doing specific measurements; what the results mean and how to communicate those results to patients. Our training has evolved over the years by working closely with local commissioners and the national team to ensure that we continually provide high quality training that is fit for purpose.

Underpinned by the competency framework we believe that the best way to learn is through interactive, fun and engaging training; Laughing while learning. Building the foundations of core knowledge then re-enforcing with practical examples helps delegates to learn and retain the important information needed to deliver effective NHS Health Checks. Our experienced trainers are experts in the delivery to the whole spectrum of health care professionals involved with NHS Health Checks, with the ability to adapt the sessions to cover all training needs.

Method: We either deliver training in a commissioning borough or centrally at London. At all training events we distribute the NHS Health Check Competency Learner Workbook along with local documentation, service level agreements, local pathways and lifestyle referral processes to embed the training into working life. Every borough is offered a pre training survey for delegates exploring confidence and knowledge of the programme along with any issues. Sometimes a borough is very specific about who the training should be targeted at, for example, pharmacy counter or council housing staff to be able to promote uptake NHS Health Checks. Our trainers also give feedback to the commissioners on how the training along with any issues identified during the sessions.

Results: So far we have trained 3,592 health care professionals across 210 courses. We evaluate every course and 99% of people rate the training as good/excellent. This year we have adapted the evaluation to include changes in knowledge and confidence in communication of CVD risk. If this abstract is successful we will be able to share more of results along with the outputs of evaluation along with common themes and issues identified.

Discussion: We are very aware of the challenges commissioners face and work closely with them to ensure that the training is flexible and tailored to their local needs while still promoting high quality NHS Health Checks. Smart Health’s main passion is the prevention and management of cardiovascular disease (CVD) and our mission is to improve the uptake and quality of NHS Health Checks in the UK. We do this with the support of HEART UK, the nation’s cholesterol charity and as a registered centre for the Royal Society of Public Health. Smart Health believe that improving knowledge, skills and confidence will improve the detection and management of diabetes, hypertension, atrial fibrillation, familial hypercholesterolemia, chronic kidney disease and lifestyle issues, leading to improved outcomes for the prevention of heart disease, stroke, diabetes and dementia.
System wide approach to improve outcomes in atrial fibrillation

Background Improving both detection and effective anticoagulation of patients with non-valvular atrial fibrillation (AF) is a national priority. Ideal AF care can reduce nearly 5000 strokes per year in the UK significantly avoiding long term care burden and reduction in quality of life. Around half of patients with an AF related stroke require long term care. Systematically achieving higher AF prevalence across a geographical footprint as well superior anti-coagulation rates in a sustained way requires a vast and co-ordinated strategic approach. A leadership model across Buckinghamshire is described. Objective To improve both detection and anti-coagulation rates in patients with AF in Buckinghamshire as a system.

Methods A multi-pronged approach was taken across primary and secondary care to improve AF detection and anti-coagulation. Once AF was raised as priority at CCG level, elements of the change programme included 1) primary care consultation to understand barriers to good care 2) development of a clinically robust “any qualified provider” specification for anti-coagulation services to ensure high quality and standardisation in care 3) primary care education in AF 4) a quality improvement programme to detect hitherto undiagnosed AF including a “feel the pulse” campaign in flu vaccine-eligible patients, and to run and analyse the GRASP AF tool 5) performance feedback on achievement 6) the offer of clinical and change-management support to GPs 7) hospital trust to contact GPs about non-anticoagulated stroke patients with a known diagnosis of AF 8) support from the regional strategic clinical network and academic health science network 9) public education

Results County wide prevalence of AF increased from 1.6% of the population in 2013 to above 2% in Feb 2017. Anti-coagulation of patients in AF increased from under 60% to above 80% of over the same period. A reduction in all cause and AF related strokes has been noted over the same period against an expected rise in strokes along a “do nothing” trajectory.

Conclusion AF is on the increase and the consequences are both devastating for the individual and unsustainable for the health economy. A system wide approach is required for any successful change programme which ensures those who deliver the change recognise the need for change, “own” the problem, feel part of the solution, and are held to account in a supportive way. Practice based clinical support and benchmarked numeric feedback is essential to provide momentum and a sense of achievement, competition and value. Systems are required to ensure a change programme is embedded as business as usual.