5-Year Retrospective Evaluation of Wiltshire’s NHS Health Check Programme

Aim: The evaluation aimed to assess available data from the first five years of the NHS Health Check programme in Wiltshire. This was to consider the impact of the programme on local health and wellbeing.

Background: In Wiltshire, the NHS Health Check programme began in 2011. It is one of the statutory mandates in the Health and Social Care Act to help improve the health of the local population. NHS Health Checks are provided by primary care, who invite eligible patients aged 40-74 to attend every 5 years.

Methodology: Data was gathered and analysed from 4 main sources: programme ‘invite and uptake’ data for 2011-17; anonymised data provided by NHS Wiltshire CCG on patient outcomes; a collection of anonymised case studies from a Wiltshire GP practice and initial patient experience survey results. Results: 2016-17 saw the highest attendances following an invitation since the programme began (50% uptake). 3,966 individuals were invited for their second (recall) NHS Health Check, meaning that 76.2% of the first NHS Health Check cohort (in 2011) were invited back for their second NHS Health Check. Of the 3,966 invited to a recall Health Check, 1,641 attended (41.4%). We sourced data of 1,275 individuals who had a QRISK/QRISK2 score calculated in both 2011 and 2016. This data set included results from NHS Health Checks and other attendances: 16.9% of patients had an improvement; 9.9% had no change in their score, and 73.2% showed a higher QRISK score, meaning that their cardiovascular risk was increased. Using data from one Wiltshire practice, we looked at a range of NHS Health Checks which generated either a new diagnosis of diabetes or hypertension. Over 20 new cases were found via NHS Health Checks. A patient satisfaction survey for NHS Health Checks was launched in April 2017. The initial findings are generally positive from the 19 respondents. 90% of respondents felt they understood the information given to them during their NHS Health Check. 84% felt that the person delivering their NHS Health Checks was knowledgeable. 90% of participants said they would return for their second NHS Health Check, the remainder all saying they would if their circumstances permitted.

Conclusion: Wiltshire was one of the earliest counties to implement the NHS Health Check programme on a county-wide basis. Data shows we have increased the number of eligible participants invited, and that uptakes of those invitations were also increasing year on year. The data shows a good proportion of eligible people returned for their second (recall) NHS Health Check. Wiltshire-wide QRISK/QRISK2 data in patients who had 2 scores 5 years apart demonstrated a widespread increase in cardiovascular risk. Our case studies from a local GP population in Wiltshire show that an efficient use of the NHS Health Check programme can contribute to new diagnoses, often in asymptomatic individuals. We therefore feel that the NHS Health Check programme is an appropriate tool to reduce cardiovascular morbidity and mortality in Wiltshire as well as supporting the population to live longer, healthier lives.
Take Control with Occupational Therapy supporting healthy choices

While our forensic mental health service has experienced advancements in practice and positive outcomes toward rehabilitation and recovery, physical health has remained a challenge; obesity levels rising faster than national population, sedentary lifestyle choices being normal and a lack of ownership and education on physical health, patients have and continue to develop health inequalities associated with lack of activity and obesity such as diabetes, cardiovascular disease and hypertension. We believe that physical health care needs to improve and to achieve significant progress this needs to be facilitated with a multi-factoral approach; A unique and innovate opportunity we believe Occupational Therapy (OT) can provide. The proposed poster presentation would share how OT can reduce health inequalities through delivery of best practice intervention. The “Take Control Team” is based within a forensic mental health service, where obesity is reaching a level of crisis and long term health inequalities are subsequently rising in association with weight management issues. Further to the direct correlation that is already acknowledged between obesity, type two diabetes, coronary heart disease and other long term health conditions; The Take Control Team also acknowledge and offer intervention to promote every day function and engagement with lifestyle opportunities such as work, education and leisure. "The Take Control Team” utilise a holistic approach to improving physical wellbeing, developing and delivering an innovative lifestyle program within the service. The "Take Control" program encourages patient empowerment, ownership and ensures increased environmental opportunities are available throughout the patient’s journey in the service. Intervention at the earliest opportunity (admission) is key to reducing the huge increase in physical health conditions that are often experienced by service users due to significant weight gain during their care and treatment in service. The unique team benefits from the underpinning OT principles, recognising the therapeutic benefit of meaningful occupation to improve everyday function and prevent disability, ensuring the task demands are just the right challenge and providing opportunity to make every contact count. Using a variety of delivery styles and opportunities the “Take Control” teams main aim is to provide an active day with improved dietary choice. While acknowledging the benefits of 150 minutes of physical activity the “Take Control” team draws upon the unique delivery opportunity to encourage physical activity outside of structured “gym” sessions, ensuring the service users are able to engage in productive life roles such as employment and leisure. The poster would analyse the benefits of OT intervention and delivery for reducing health inequalities, particularly obesity, diabetes and sedentary lifestyle choices. The poster would detail the unique delivery that OT brings to improving outcomes for health inequalities as well as the strengths, weakness, opportunities and challenges that this team brings to the environment. Contained within the poster would be recent evidence based practice, how thinking "differently" led to significant service delivery changes, what is unique about Occupational Therapist and their role within reducing health inequalities, how cohesive- holistic delivery is achieved and the benefits of this delivery model, real life working practice examples and patient stories.
Care and Support Planning for Multi-morbidity; Making it Routine in General Practice

Why use Care and Support Planning for multi-morbidity? The CCG in Gateshead recognised the need to work differently to improve the quality of care for people with long term conditions (LTCs) C&SP is a systematic process to enable a conversation focussed on what matters to the individual Care is focused on the person and what’s important to them, rather than the individual conditions they have It involves a single conversation however many conditions or issues the person has Preparation (sharing information and prompting reflection) enables a conversation between equals and experts and efficient use of time and resources C&SP is now becoming part of the GP registrar curriculum, the NICE Quality Standards and CQINN for community care We have taken a developmental and supportive approach to enable practice teams to adopt the principles of care and support planning: We used the ‘House of Care’ as a framework for implementing C&SP and accessed Year of Care Partnerships (YOC) training Formed the Gateshead Year of Care meeting group with local partners and developed an action plan Ran C&SP taster sessions with Practice staff and provided 1.5 day Year of Care C&SP training and support for practices Employed LTC Patient involvement officer who worked with patients with LTCs Engaged practices in C&SP via a local incentive scheme and continue to provide support from CCG practice facilitators Development of social prescribing strategy and ‘our gateshead’ as a menu of community activities Shared learning and good practice across Gateshead

Feedback from Health Care Professionals The patient is prepared for the consultation, having seen their results and thought about them in advance – this changes the whole conversation We have a robust process for annual review which helps achieve targets and improve patient care Feedback from Patients It was good to see it in print...you don’t always understand but I could follow it and at least look at it again I could talk about what problems I had Learning from our experience All practices have different starting points and their journey will reflect this There may need to be a cultural and philosophical shift across the whole practice team Preparing the patient is key but can also cause the most anxiety for practice teams before they start; sharing patient and HCP stories can help To make C&SP work well all elements need to be in place with everyone fulfilling their role; a whole practice team approach works best Clinicians need support with social prescribing – community link workers/ navigators are key to this It takes time for practice teams and patients to adapt to this new way of working

This work has been funded by the British Heart Foundation in their national House of Care programme and supported by Year of Care Partnerships. It has been a partnership approach across Gateshead with support from local stakeholders. We are grateful to all involved for their continuing hard work and support.

Introduction: Most health systems around the world are poorly designed with respect to preventative, patient-centred medicine. England challenges this with its ‘NHS Health Check’. The first of its kind in the world, its purpose is to prevent and detect undiagnosed cardiovascular disease and its complications across the whole of the eligible population. An ambitious initiative and major investment in “upstream” health promotion and disease prevention activities, it is England’s serious attempt to improve public health and contain health service spending on potentially preventative diseases.

Objective: To identify and compare local and regional studies having undertaken an evaluation on the NHS Health Check programme in England.

Methods: A systematic review was conducted to identify observational studies evaluating the impact of NHS Health Check programmes looking at local uptake and patient outcomes. Published studies in English only between April 2009 – January 2017 were reviewed.

Findings: Studies used different methods to evaluate their local programme. Whilst study quality was mixed, statistically significant data were frequently observed and clinically relevant. Demographic heterogeneity posed a challenge to the national application of results.

Conclusion: This evaluation highlights that national standardisation of the Health Check programme must target local populations. Cardiovascular risk factors cluster in groups, who often have the greatest needs, yet are least likely to be screened. Future research should identify the determinants of this clustering to address any ‘inverse care law’. Policy makers must develop primary and secondary prevention methods in line with local community needs. Focusing on high-risk groups offers a more efficacious, cost-effective prevention strategy.

The Department of Primary Care and Public Health at Imperial College London is grateful for support from the NIHR Collaboration for Leadership in Applied Health Research & Care (CLAHRC) Scheme, the NIHR Biomedical Research Centre scheme, and the Imperial Centre for Patient Safety and Service Quality.
Health Check E-learning - the issue of Quality Assurance and a solution to support refresher training without the need to leave the workplace

INTRODUCTION: Kent Community Health NHS Foundation Trust (KCHFT) is currently commissioned by Kent County Council to deliver the NHS Health Check Programme in Kent, working predominantly with Primary Care. We are responsible for the training of all practitioners who deliver NHS Health Checks in Primary Care, Pharmacy, outreach and within KCHFT. The initial training and support programme offers the opportunity for face-to-face training in all aspects of Health Check delivery as well as underpinning knowledge and skills required to facilitate effective conversations around lifestyle choices and behaviour change. Whilst this training provides an excellent foundation, we are aware how much of a challenge it is to assure quality and competency, month on month, year on year. In response to this challenge, we have developed an e-learning refresher package that practitioners can access without having to travel away from their workplace.

AIM: Ever-decreasing budgets, low/fluctuating staffing levels and an increased demand to provide more services within Primary Care and Pharmacies make it very difficult for practitioners to be released to attend face-to-face training. However, providing quality delivery to patients by a competent and confident workforce remains paramount. In order to address this issue, it was clear that to be able to reach such a vast workforce over a large county area (Kent), an alternative training provision was needed that would meet the requirements as outlined above.

METHODOLOGY: The following approach was taken: Liaison with KCHFT Learning and Development Team to discuss format for e-learning package Review of existing initial training/Health Check competency framework and Best Practice guidelines to assess requirements for a refresher courseInclusion of an assessment to support competency/quality assurance

RESULTS: The completed e-learning package is currently in a pilot stage with our core KCHFT Health Check team, who are due to complete the training by the end of December 2017. They will also provide a critique of the training which will form the basis for any first-line amendments before it is available for the next stage of testing. This will involve a small group of Health Check practitioners from Primary Care/Pharmacy. Their feedback will help to inform the final version of the e-learning package which will then be available to the wider workforce. Evaluation of the e-learning package will take place after the first full year via questionnaires and feedback from practitioners.

CONCLUSION: The introduction of an e-learning refresher package will enable all practitioners who are delivering Health Checks to access an on-line resource (which they will be required to complete every two years after their initial training) in addition to the current support provided by the Project Managers within KCHFT. Other benefits: Employers can support the on-going training and competency of their staff without the added impact of travel time Employers and KCHFT (as lead providers) can be assured of the quality of Health Check delivery for the patients of Kent Commissioners (KCC) can access evidence to support the quality assurance of the Health Check programme in Kent Practitioners can deliver Health Checks competently and with confidence.
Improving CVD Risk Communication in NHS Health Checks

Introduction: Within NHS Health Check, CVD risk is most commonly presented to patients in a percentage format. Research has shown practitioners and patients may not fully understand percentage CVD risk, which could reduce the effectiveness of risk communication. This raises concerns about how risk is discussed and how patients’ results are explained. Since the introduction of NHSHC, new tools have been developed to simplify risk communication such as ‘Heart Age’ and ‘JBS3’ lifetime risk. At present, these are not commonly used in Health Checks and there is no training for practitioners to do so.

Purpose: The aim of the research was to develop, pilot and evaluate innovative training to improve health professionals’ confidence and understanding when communicating CVD using novel tools and concepts, such as Heart Age and JBS3. The research questions included: (i) what are the barriers associated with risk communication, conveying information, and difficulties experienced? (ii) what impact does risk communication training have on practitioners’ confidence and understanding?

Methodology: The study was separated into four parts using a combination of qualitative and quantitative methods: Stage 1 - assessment of needs through semi-structured interviews (Face-to-face and via telephone) with health professionals to answer question (i); Stage 2 - exploration of results from stage one and previous research to develop the training course; Stage 3 - pilot training course to answer question (ii); Stage 4 - evaluation of training via semi-structured interviews.

Results: The study was conducted in partnership with Public Health (PH) OMBC to encourage engagement with health professionals through their Primary Care PH Support package and strong links with general practices. The research was promoted through PH admin, practice nurse and practice manager forums, and through PH Programme Management Engagement with practices. In stage 1, 31 interviews were conducted with health professionals (21 Health Care Assistants, 5 Practice Nurses, 4 Pharmacists and 1 GP) from Oldham, Manchester and Stockport. One master theme was identified titled ‘delivery of NHSHC’ and included: knowledge of QRisk, perception of QRisk and Heart Age, health professionals’ confidence when communicating risk, patient and practitioner related challenges experienced during delivery of the programme, and communicating risk to patients. The majority of the sample interviewed said CVD risk communication training would be useful (N=29) to help deliver NHSHC to patients with most training requests related to a background of QRisk to improve knowledge and understanding. Other areas included visuals to support the health professional when communicating risk, a general background to CVD risk, materials for patients and ways to simplify risk to aid patient understanding. The training was developed and informed by the PET framework, and piloted through delivery to health professionals during the OMBC PH NHSHC Primary Care Forum. Analysis of evaluation data is ongoing.

Conclusion: We will present findings from the needs assessment, an overview of the training content and preliminary results from the evaluation. The research will be presented by a researcher and public health programme manager OMBC, providing insight for academics, practitioners and commissioners of the programme.
Improving the quality of delivery of the NHS Health Check programme, drawing on the experience of the East of England commissioners network

In the East of England a NHS health check commissioners network has been meeting quarterly since 2013, The network is chaired by a local authority Head of Health Improvement and is facilitated by the PHE East of England Health and Wellbeing team. The networks provides a forum for sharing of practice and experience across 12 local authorities covering diverse populations and needs across urban and rural communities. Improving the quality of the NHS health check programme is a regular discussion theme at the network. A range of approaches including, practice visits and training, GP data extracts and performance reports, patient satisfaction questionnaires, mystery shopping , spot audits and quality payments will be described. The key performance indicators used, the feedback approaches to providers and quality improvement support options provided by local authorities will also be described. The impact of the various approaches on improving the quality of NHS health checks will be discussed and conclusions drawn as to what key elements could be considered by commissioners when developing a quality improvement scheme for NHS Health Check delivery.
Working with groups of the public

Abstract Bradford Healthy Hearts - patient education Groups As part of a small team of Dr. Chris Harris and Dr Youssef Beaini we delivered evening events to large groups of the public Purpose was to increase uptake of stating therapy, increase awareness of the importance of hypertension control and increase awareness of Atrial fibrillation, anticoagulation therapy, the taking of a pulse rhythm and the FAST test. Evening meeting were delivered once a month 6 - 8pm in a central location in Bradford. People were invited by text from their GP practice if they were above the age of 40 and below 75. They attended in significant numbers from 30 to 100. The content was clinical information not advice and it was received very well and evaluated as effective by the attendees.
QOF Plus AF Stroke Reduction Scheme in Worcestershire

Introduction: This abstract summarises the evidence based approach taken in Worcestershire to reduce the incidence of stroke by incentivising GP practices to anti-coagulate ‘atrial fibrillation patients with a record of a CHAD2DSC-VASc score of 2 or more’ to a higher level than the 70% maximum threshold contained within the Quality and Outcomes Framework, (QOF), indicator AF007. The scheme has been operational since 2015/16

Purpose: The QOF plus scheme aims to reduce the incidence of stroke focussing on those patients with AF. The rationale for this being that for every 30 AF patients treated with anti-coagulation therapy one stroke is prevented.

Methodology: The CCG has delegated authority to commission primary medical services with PMS premium available to reinvest in general practice. A programme of supporting practices via peer review visits was already in place, and the CCG issued EMIS searches to facilitate AF case finding. Practices received a monthly dashboard to monitor progress. The AF007 targets set for achievement have increased over the 3 years as outlined in the table below. The CCG also built in a requirement that exception reporting should not exceed an upper limit defined as the CCG mean rate, plus 1 standard deviation. In 2016/17 payment was reduced to reflect the fact that this was essentially a maintenance position; patients who have been anti-coagulated will continue to receive this treatment. For 2017/18 there is just one target; the proviso regarding exception reporting still applies.

In 2016/17 the principles of the above scheme were rolled out to the two other Worcestershire CCGs. The target in R&B reflected a lower level of historic achievement. There were different payment rates because of differing PMS resources available in each CCG.

Results: South Worcestershire CCG - QOF plus Scheme for AF 007 – 32 practices

<table>
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<tr>
<th>Year</th>
<th>Target</th>
<th>Payment for Average Practice</th>
<th>Practices exceeding Upper Limit</th>
<th>Percentage</th>
<th>Additional Patients Anti-coagulated</th>
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<td>+70% Quartile 1 - highest</td>
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<td></td>
<td></td>
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<td></td>
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<td>1006</td>
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<td>£2,100</td>
<td>8 practices + 94.85%</td>
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<td></td>
<td>1374</td>
<td>End of Year</td>
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</tbody>
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Redditch/Bromsgrove and Wyre Forest CCGs QOF plus Scheme for AF 007 2016/17 CCG Target Payment per average practice

End of Year Achievement Additional Patients Anti-coagulated *WFCCG 11 practices £2,225 £1,340 8 practices 3 practices 602 R&B CCG22 practices 94% 90% £1,1509 lower8 missed the target345

*Compared to QOF target of 70% South Worcestershire CCG monitored ‘Emergency Admission for a stroke’ and there were 22 fewer stroke admissions, total 638, in 2016/17 compared to the 660 in 2015/16.

Conclusion: Overall practices have responded to the challenge of raising performance against AF007, the biggest impact being in the first year of the scheme. The result of the increase in anti-coagulation for AF patients is there have been fewer strokes.
The new standards and core components for CVD prevention (& rehabilitation) programmes

The British Association for Cardiovascular Prevention & Rehabilitation (BACPR), which is an affiliate group of the British Cardiovascular Society (BCS), first produced standards and core components for CVD prevention & rehabilitation programmes (CPRPs) in 2007. These guidelines were updated in 2012 and published in the journal of the BCS (Heart) at that time. In light of further developments in the evidence base and the need to promote best practice amongst the CPRPs across the UK, a revised and updated set of standards and core components has been developed in 2017. This document has been endorsed by the BCS and the British Heart Foundation, and the standards which it describes form the basis of the national certification programme for CPRPs across the UK. This programme, which is supported by audit data from the National Audit of Cardiac Rehabilitation (NACR) has been developed via a BACPR/NACR partnership and is designed to reduce variation in practice and ensure that services deliver evidence-based, high quality interventions and assess their short, medium and longer term outcomes. The six standards (of CVD prevention and rehabilitation) focus on the structure, timing and operational elements that should underpin all effective CPRPs and which should guide commissioners, health-care professionals and other key stakeholders during times of service review, improvement or redesign. The standards focus on a person centred approach of individualised goal setting and a comprehensive early assessment (within 10 working days of referral) and early initiation of interventions. The breadth of the multi-disciplinary is described along with the need for final (or outcomes) assessment and the completion of audit data. The six core components of CVD prevention provide the framework of activity and interventions upon which the CPRP is based. These six components are: Health behaviour change and education; Life style risk factor management; Psychosocial health; Medical risk management; Long-term strategies; Audit and evaluation. An info-graphic which portrays these six components has been developed and this model had been adopted by the International Council for Cardiovascular Prevention & Rehabilitation (an affiliate of the World Heart Federation) which aims to improve world-wide access to CVD prevention and rehabilitation, with a key focus on low and middle-income countries. The six core components are supported by the updated evidence base and are designed for use by health-care professionals working within CPRPs so that a comprehensive assessment of risk can be undertaken and then targeted, using appropriate strategies with health behaviour change & education acting as a central theme. It is envisaged that the adoption of these revised, evidence-based standards and core components by all CPRPs will, in turn, allow all patients and "at-risk" individuals to access the highest quality of prevention (& rehabilitation) interventions, irrespective of their geographical location, age, gender, social circumstances or cultural preferences. The full documents and references: The BACPR Standards and Core Components for Cardiovascular Disease Prevention and Rehabilitation 2017 (3rd Edition) can be found at www.bacpr.com
How to really get Health Checks delivered through Pharmacy

Background: In Somerset ToHealth Ltd have been delivering NHS Health Checks through its Pharmacy partners since 2015. During this time steady, yet unspectacular delivery growth has been seen through this delivery channel. In Year 1 (2015/16), 1056 full Health Checks were delivered; in Year 2 (2016/17), 2721 full Health Checks were delivered. In 2015/16, ToHealth decided to purchase household information through a third party data provider. This dataset enabled invite letters to be sent to Somerset addresses who had a householders aged between 40 and 74, no other eligibility criteria was available. The data was prone to inaccuracy. The invite letter was proving to be minimally cost effective.

Introduction: In December 2016, NHS Digital granted Somerset County Council and ToHealth access to a data extract from the NHIAS database (National Health Application and Infrastructure Services). Prior to this we carried out a privacy impact risk assessment which was reviewed and approved by Somerset County Council. The NHIAS data extract gave access to title, full name, full mailing address, NHS number, GP practice name, GP practice code, date of birth and Gender. The reason for acquiring this new NHIAS data extract was to increase the accuracy of the Pharmacy invite letter, and in turn improve the delivery of Health Checks through Somerset pharmacies. It was hoped that the new dataset would increase the number of health checks delivered as a result of the letter from 3-5%, to 6-8%.

Methodology: Once the NHIAS data extract was available the data was put into a useable format. The data was refined further by: Removing clients who were registered at one of delivering GP surgeries Removing clients who had already had a Health Check recorded on our database Only include clients who were in a 2 mile radius of Somerset 30 delivery Pharmacies A 3rd party mailing partner sent the invite letters in batches over the next 9 months. Results: Year 1 delivery: 1056 full health Check (old data list); 1-3% uptake of invite letter Year 2 delivery: 2721 full health Check (old data list); 3-5% uptake of invite letter Year 3 delivery: 2162 full health Check in just 5 months (NHIAS data list); 7-10% uptake of invite letter. The Pharmacy channel is now on target to deliver 5188 Health Checks in Year 3. This is a 140% increase between year 2 and 3. Access to the NHIAS data extract enables ToHealth to actively target defined populations. Between April and August 2017 the invite letter was sent exclusively to female residents. Overall numbers of females having a Health Check in Pharmacies moved from 62% to 87%. This is a 25% difference over 5 months.

Conclusion: The use of the NHIAS data has considerable implications on Pharmacy Health Check delivery. The acquisition and use of this data shows the value of strong partnerships between commissioners, service providers and the Department for Health. We hope to use the NHIAS data in the future to target key groups such as in areas of deprivation.
Detecting atrial fibrillation in Haringey through opportunistic screening in primary care and use of Alive Cor device to reduce unnecessary ECGs

Background: Atrial fibrillation is a key risk factor for stroke. In Haringey, North London, there are estimated to be over 4,200 people with atrial fibrillation, of which 2065 were diagnosed and recorded on GP registers in 2014/15 (QOF). Improving diagnosis and management of atrial fibrillation is a key aspect of Haringey's approach to preventing strokes.

Aims and methods: In 2015/16, Haringey Clinical Commissioning Group, working in partnership with Haringey Council Public Health Team, devised and implemented an incentive scheme for opportunistic case finding for atrial fibrillation and high blood pressure in primary care, which was offered as a locally commissioned "stroke prevention" service to all general practices in Haringey. The atrial fibrillation component provided practices with a small financial incentive to carry out opportunistic manual pulse checks for anyone over the age of 65 attending the practice without a recent pulse recording. Annual flu vaccination for over 65s was identified as a prime opportunity for combining with opportunistic pulse checks. The aim of the opportunistic pulse checks was to increase diagnosis rates of atrial fibrillation in Haringey. In 2016/17 a number of GP practices were provided with the Alive Cor Kardia mobile ECG app and device, which allows clinicians to carry out a simple point of care ECG on a patient using a mobile phone or tablet. The Alive Cor Kardia mobile device was used to complement the opportunistic screening initiative for AF, so that where manual pulse palpation was suggestive of an irregular pulse, the Alive Cor could be used to carry out a point of care ECG, which if normal would rule out the need for a patient to be sent for an ECG at a local hospital or community clinic.

Results: In 2015/16 over 10,000 opportunistic pulse checks were carried out by GP practices as part of the case finding initiative. The number of people with diagnosed AF in Haringey increased from 2,065 at the end of 2014/15 to 2,343 at the end of 2015/16 (QOF). Taking into account historical trends in increased diagnosis rates for AF in Haringey, there was an additional 6.4% increase in AF diagnoses (142 cases) in 2015/16 that could potentially be attributed to the scheme. The cost of the case finding initiative was £40,000, representing an estimated cost of £281 for each new case of AF detected. In the initial pilot period where 11 GP practices used the Alive Cor device to provide a point of care ECG, 209 patients received an ECG using the device of which 176 had a normal trace and required no further investigation. Only 33 had a trace suggestive of AF and were referred on for a 12 lead ECG. Savings from reduced onward referrals for 12 lead ECGs in the pilot period were estimated as over £13,552.

Conclusion: Opportunistic screening for AF in primary care is effective at identifying undiagnosed atrial fibrillation. Use of the Alive Cor device in primary care is feasible and has the potential to reduce healthcare costs from unnecessary 12 lead ECGs.
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ADVANCING ATRIAL FIBRILLATION DIAGNOSIS AND MANAGEMENT IN EAST MIDLANDS

Since April 2013, East Midlands Cardiovascular Clinical Network has been working with the 19 Clinical Commissioning Groups in East Midlands to support them to enable GP practices to improve the diagnosis and management of atrial fibrillation and implement an effective stroke prevention pathway. The AF programme has delivered the following improvements in East Midlands between March 2013 and March 2016:

- % of high risk AF patients on anticoagulation treatment increased from 64.3% in March 2013 (below England average: 65.1%) to 80.3% in March 2016 (above England average: 77.9%). East Midlands has the highest anticoagulation rate of all regions in England with 3 of the top 10 CCGs and 7 of the top 20 CCGs in England.
- 11,857 additional people diagnosed with AF. AF prevalence increased from 1.58% to 1.79% (13% increase).
- 29,331 additional high risk AF patients are on anticoagulation medication compared to March 2013 (+111%).
- Preventing an estimated 793 strokes, 264 deaths and avoiding £1.89m admission costs each year.

In 2017-18, East Midlands Clinical Network are working in partnership with East Midlands Academic Health Science Network, Public Health England, Health Education East Midlands, Right Care NHS England, East Midlands CLAHRC, Heart Rhythm Alliance, Stroke Association and British Heart Foundation to further support CCGs to improve AF diagnosis and management:

- Providing tailored support to the 6 CCGs with the lowest anticoagulation treatment rates to help them achieve anticoagulation uptake of 85% by March 2018.
- Increase AF diagnosis by 10% by March 2018 in 8 CCGs in East Midlands through supporting deployment of 520 AliveCor Kardia ECG devices in general practices together with training and AF Toolkit. A 10% increase in AF diagnosis and anticoagulation management would prevent 287 strokes and 96 deaths and avoid £4m spend on hospital admissions and £2.9m spend on social care costs each year.

The AF Advance programme includes these core elements:

- Ambassador – funding of clinical ambassadors within each CCG and GP practice to enable them to take a leadership role in driving improvements. Diagnosis – improving clinical expertise in AF diagnosis and management through up-skilling and provision of AliveCore devices to support opportunistic case finding. Variation – production of AF infographics highlighting variation within CCGs and practices in AF diagnosis and management making a compelling case for action. Normalise anticoagulation as the default treatment by funding GP up-skilling to ensure clinicians have the knowledge and confidence to deliver evidence based AF care. Audit and Action Planning – supporting GP practices to use GraspAF to inform Action Plans. Clinical Template – supporting use of an evidence based AF clinical template by GP practices supporting delivery of best practice care. The Clinical Template has also been adopted by a further 20 CCGs nationally. Evaluate improvements in care through re-audit at GP practice and CCG levels and across East Midlands. Improved outcomes are being delivered in 2017-18 e.g. the proportion of high risk AF patients on anticoagulation treatment from March 2016 to March 2017 has increased from 77.8% to 83.6% in Rushcliffe CCG and from 85.5% to 90.3% in Lincolnshire East CCG.
Abstract: Atrial fibrillation (AF) is a difficult condition to identify and diagnose because it is often asymptomatic and can be paroxysmal. In spite of all the recent efforts, 30% of patients with AF remain undiagnosed and susceptible to developing strokes, heart attacks or heart failure. With Haringey CCG and Borough, the Whittington and Helicon Health have introduced Secure Diagnostic Stratification which is an algorithmic-based clinical evaluation tool that can identify undiagnosed patients. Using this technique two groups of patients can be identified. Firstly the MISSING, who have been diagnosed by a healthcare professional to have AF, but this has not been communicated to primary care where the patient remains undiagnosed. Secondly the LIKELY identifies patients who have a very similar health record as a group, to the other patients who have AF; but in the LIKELY patients, AF has not been diagnosed. This technique can be used by GPs to identify patients suitable for clinical review. Using list size comparison with practice registers and the advanced algorithms, 680 patients have been identified as MISSING and 1,900 LIKELY over a period of 3 years from a CCG list size of 306,275. Through a quality improvement initiative the CCG are incentivising GPs to review the clinical records of the patients and use the AliveCor device to confirm AF. The patient will then be appropriately assessed for oral anticoagulation and arrangements made for a 12 lead ECG, other relevant investigations, the initiation of oral anticoagulation and a management plan for the AF rhythm and rate. Many of the newly diagnosed patients will be able to use an AF patient app for stroke prevention. It is being developed in the light of increasing evidence to demonstrate that patients achieve better results when they are involved in their own care. The app has the following components and functions: It is available on a smart phone, tablet or desk top computer; it offers ongoing education and support for the patient; it has been developed with a lot of patient input into the content and design. Clear information is presented in easily understood material and it offers links to other recommended sources. It supports the use of devices such as BP monitors, activity measures, oral anticoagulant control, heart rate and rhythm monitors. The data can be collected “at home” and will increase the patient “ownership” of the data. The results can be transmitted to an HCP. It supports the use of messaging and reminders to support the ongoing care, a resource to answer questions that may arise, and a means to seek patient views and comments. Enable the secure communication of information to the GP and other HCPs involved in the patient’s care, including social care. The inclusion of several medical conditions in the app encourages the appreciation that addressing these together in a “joined-up-manner” will contribute to the risk reduction of all cardiovascular diseases.
Gateshead NHS Health Check Community Incentive Scheme

Introduction: Gateshead NHS Health Check Community Incentive scheme is designed to engage community organisations to organise NHS Health Check events in local community venues. GP Practices are inviting eligible people for a NHS Health Check but their capacity is limited and some people are hesitant to take up this medical invitation. We are able to provide NHS Health Checks in community venues using pharmacy staff to undertake outreach work. This has been successful with community groups and local events, reaching people who may be reluctant to take up an invitation from their GP.

Purpose: We know from the national evaluation and a local pilot, that providing NHS Health Checks in the community does appear to reach a high number of people who are found to be at increased risk. Community events require local knowledge, time and effort. The Community Incentive programme needs organisations to use their networks to find people who are eligible, arrange local Health Check sessions and provide support on the day itself. The Community Incentive programme recognises the activity required to make a community event a success and provides payment (the ‘incentive’) accordingly.

Methodology: The scheme is open to Gateshead Voluntary sector organisations or community groups that have the capacity to attend training session and have sufficient local links to recruit eligible people to have an NHS Health Check. Organisations need to: apply and fulfil the grant agreement provide a suitable venue Promote the NHS Health Check locally check eligibility and create appointment list for agreed event day (minimum of 6 per session)work with pharmacy staff on the day and host the event submit a claim form for the number of health checks completed.

Results: Adhoc feedback has been that some people will have a health check to support their local group, and they wouldn’t have normally accepted the invitation Community organisations have valued the training and are having conversations about NHS Health Checks. The investment of volunteer or staff time will become increasingly beneficial if they hold more than one event and/or can guarantee a larger number of people at one session. Over 15 organisations have been involved to date and currently there is a waiting list of interested organisations – this scheme relies on Health & Wellbeing Intervention Lead to co-ordinate. Finding eligible people can be difficult.

Conclusion: It takes a great deal of effort and strong community participation to support the delivery of NHS Health Checks in the community, and the health checks are at a higher cost. This delivery model also benefits the community in terms of availability of health checks, making every contact count, and financial reward for the community group. It has huge potential to reach high risk people who wouldn’t normally take up the offer of a health check. This needs to be evaluated in a more systematic way and to capture peoples stories. We are currently reviewing the criteria of the scheme and would welcome some research input.
Communicating cardiovascular risk score in a NHS Health Check

Introduction: The NHS Health Check (NHSHC) Programme aims to reduce an individual’s risk of cardiovascular disease (CVD). A specific challenge in practice is how to demonstrate and measure communication of risk and outcomes of a NHSHC. Everyone who has an NHSHC should be given clinically appropriate lifestyle advice, to help them manage and reduce their risk (1). The assumption is that delivering health messages should encourage people to cease or adopt certain behaviours, which in turn is likely to result in health improvement (1). This is a summary of an assignment to explore how to improve the communication of risk in an NHSHC.

Purpose: The communication of risk is almost implied by the completion of a NHSHC but this is an issue of quality to address. In the context of the NHS, quality is defined in terms of patient safety, clinical effectiveness and the experience of patients (2). Cardiovascular disease (CVD) risk and other results should be communicated using everyday, jargon-free language. However depending on the delivery model in place, this advice and the completion of the risk assessment may be completed by different professionals (1). The concept of a complete NHSHC includes the communication of risk and the behaviour change conversation, and is not just the completion of clinical measurements. Evidence says patients are confused by or incorrectly understand their risk score (6). Methodology: A diagnostic analysis (DA) will be done using the Theoretical Domains Framework (TDF) to identify opportunities to change practice. TDF is grounded in psychological theory and was developed to address the lack of theoretical understanding of the processes involved in changing the behaviour of healthcare professionals (7). The domains have been explored using recent evidence (6, 9) to identifying key factors involved. This analysis focuses on healthcare staff delivering health checks as without health care professionals, patients at risk would unlikely be identified or managed (6).

Results: The DA has identified some key issues and barriers to improve quality in practice. The key factors involved are: knowledge and skills, staff training, social/professional role of practitioner, structural challenges, and social influence. Based upon the DA of the evidence, a combination of interventions could be proposed. To understand how the communication of risk happens in practice, a local action plan should be developed to incorporate:- exploring all aspects of communicating risk with providers-develop a mechanism for patient feedback- identify barriers and enablers for change- Evaluation

Conclusion: Improving the communication of risk in NHSHCs is a multifactorial issue and future practice and policy should take account of this. By developing a better understanding of the processes involved in communicating risk, commissioners will be better placed to ask the right questions about providers’ focus on improvement and the progress they are making (15). This is definitely an area for future development in Gateshead and will contribute to a better quality NHS Health Check experience.
Using the StARS Framework to Improve Standards - An Oxfordshire Approach

Introduction: The NHS Health Check Programme Systemic Approach to Raising Standards Framework (StARS), provides Local Authorities with a structured and systematic approach that supports raising delivery standards. It is a self-grading process based on evidence provided against ten themed sections. Oxfordshire County Council value the use of auditing tools to improve on the quality of services offered to local residents and annually audit the NHS Health Check Programme using Programme Standards to local needs. The Council recognised the value of the StARS Framework as a tool to ensure that services were of a high quality across the whole Programme pathway.

Purpose: The Framework evaluates the whole Programme against ten themed sections. Using the systematic objective approach offered through the Framework allows areas of improvement to be identified and incorporated into the local Programme Action Plan for 2017/18. The current contract for services with providers ends in March 2018. This allows for the timely use of the StARS Framework to identify any areas of development and to inform future commissioning of services.

Method: The team applied at three stage approach to completing the StARS Framework. This involved an initial internal completion of the assessment by the Public Health team. The completed assessment was evaluated and challenged by the senior team including the Director of Public Health and Cabinet member for Public Health (Stage 1). Following the internal evaluation and review of the assessment document, colleagues from Public Health England were invited to review and comment on the assessment (Stage 2). Finally, the assessment document was peer reviewed by another Local Authority (Stage 3). After each stage, all comments made were reviewed and the assessment document amended accordingly before a final version was agreed and signed off.

Results: Across the Programme there are areas of strength and good practice in the approach to delivering the Programme. However, there were areas for development and improvement identified by the assessment. These included better identifying areas of inequality of the delivery and uptake of the Programme and how to target communications to residents who do not take up the offer of a NHS Health Check. The StARS Framework also confirmed findings of a recent quality audit that development of consistent clinical templates used by providers for recording their activity is required to improve upon quality for data recording.

Conclusion: Completion of the StARS Framework process with external scrutiny and peer review has been a useful exercise for the Council. The added innovation of external scrutiny provides further robustness and independence to the Framework process whilst developing partnership working with local networks. This objective and systematic process has identified areas of development and continued improvement for the Programme locally. Using this process has provided meaningful actions for future work in the Programme in 2017/18 and helped inform commissioning of the service from April 2018.
Investigating England’s postcode lottery: An analysis of the relationship between key lifestyle risk factors for CVD and socio-economic status

Aim: To investigate how key lifestyle risk factors map onto the spectrum of deprivation indices. Hypothesis: Informed by research suggesting social determinants significantly impact health and health inequality, we expect to observe a positive relationship between more deprived areas and the prevalence of key lifestyle risk factors amongst residents.

Method: Analysis will be run on an anonymised sample of 23,355 NHS Health Check records gathered between 01/04/2015 and 27/09/2017, and collected across a broad range of geographical areas in England. Key lifestyle risk factors for cardiovascular disease (CVD) will be examined through the lens of deprivation status (as defined by the English Indices of Deprivation 2015, which maps neighbourhoods onto a scale of 1 – 10 whereby 1 = top 10% most deprived and 10 = bottom 10% least deprived).[1] Lifestyle risk factors to be investigated include: smoking status, physical activity levels, alcohol consumption. For each respective risk factor, mean average scores will be calculated for the top and bottom 10% most and least deprived deciles. Regression analyses will be run to verify any trends observed and to establish correlation coefficients/determine the significance of any apparent relationships. All data undergoing analysis has been collected using Health Diagnostics’ NHS Health Check IT solution.

Results: Smoking status
Scoring system: = never smoked = ex-smoker = current smoker
Mean; most deprived 10% = 1.59
Regression analysis shows a positive relationship between the more deprived an area is and the likelihood of residents being current/ex-smokers (coefficient = 0.04; 95% confidence level).

Physical activity levels
Scoring system: = active/very active = moderately active = inactive/activity physically impossible
Mean; most deprived 10% = 2.06
Regression analysis shows a positive relationship between the more deprived an area is and the likelihood of residents being less active (coefficient = 0.03; 95% confidence level).

Alcohol consumption
Scoring system: = never drink alcohol = drink monthly or less = drink 2-4 times a month = drink 2-3 times a week = drink 4 or more times a week
Mean; most deprived 10% = 2.81
Regression analysis shows a negative relationship between the more deprived an area is and the likelihood of residents frequently consuming alcohol (coefficient = -0.09; 95% confidence level).

Conclusions: In the case of both smoking and physical activity, residents living in the most deprived areas are significantly more likely to engage in risk increasing behaviours than those living in lesser deprived areas. With respect to the frequency of alcohol consumption, the opposite is observed; those living in the least deprived areas are significantly more likely to drink regularly compared with those living in more deprived areas. The next step is to run a multivariate regression analysis examining the relationship between deprivation status and overall CVD risk (holding for none modifiable risk factors: age, gender, ethnicity, family history).[1] https://www.gov.uk/government/statistics/english-indices-of-deprivation-2015
Testing the Feasibility of Integrating Atrial Fibrillation Checks into Stroke Association ‘Know Your Blood Pressure’ Events.

Introduction: Every year in the UK there’s more than 100,000 strokes,1 many of which are preventable. The biggest modifiable risk factors for stroke are high blood pressure and atrial fibrillation. High blood pressure (BP) contributes to half of all UK strokes, and Atrial Fibrillation (AF), a type of irregular heartbeat, contributes to 1 in 5. The Stroke Association (SA) runs a successful behaviour change campaign called Know Your Blood Pressure (KYBP). Events across the UK offer free BP checks, including discussion of personal risk factors and advice if action is needed. In 2016 there were 1,997 KYBP events, measuring 55,156 BPs, leading to 25% of attendees being referred to their GP due to high BP.1 The aim is to utilise these existing KYBP interactions to include AF checks, to ensure every contact counts.

Purpose: KYBP+AF events will be trialled to assess whether it is feasible to include a pulse check and what format this might take. Data collected will be used to answer the following questions: Do events raise AF awareness and prompt action? Are there sufficient resources? Is pulse-checking technology accurate and useable? Are events practical to deliver without negatively impacting BP messaging? Is AF information communicated to attendees in an understandable, appropriate and memorable way? Does AF integration work across all settings, and reach target audiences? Can impact be measured?

Methodology: In addition to standard KYBP event proceedings, trial events will use technology called Kardia (by AliveCor); a device that takes a pulse (comparable to Lead 1 of a standard electrocardiogram machine), alongside an App on smartphones. This will allow attendees to be provided with guidance on their heart rhythm, advising GP follow-up where AF is detected. The KYBP + AF events will take place in three different settings: Public e.g. shopping centres, Business e.g. workplaces, Health e.g. GP surgeries (including events run in partnership with Clinical Commissioning Groups (CCGs) and Academic Health Science Networks (AHSNs). Results Data will include readings, timings and risk factors recorded at events, in addition to follow-up email surveys with attendees and staff. Measures include qualitative free-text fields, which may be coded post-hoc for quantitative analysis, Likert Scales and multiple choice questions. Data on numbers signposted to GPs and action then taken by attendees and their GP will be collected.

Conclusion: Events began in September 2017, and preliminary data should be available by February 2018. Evaluation will consider whether full integration of AF checks into KYBP events is feasible, and use evidence for best practice recommendations. If successful, it is hoped public knowledge of AF will be increased, risk factors and symptoms recognised, and medical advice sought, where formal diagnoses may be made and treatment initiated. References Stroke Association. State of the Nation 2017. Available: stroke.org.uk/resources/state-nation-stroke-statistics last accessed 29 September 2017.
Risk Communication in NHS Health Check: the RICO study

Background: NHS Health Check is a strategically important national CVD risk assessment programme for adults in England aged 40-74 years without a pre-existing condition. For Health Checks to promote health-protective behaviours that reduce CVD risk, risk information must be effectively communicated and understood, such that the patient leaves the consultation with the knowledge and intention to act. Yet there is a lack of information on the nature of Health Check consultations and if/how practitioners communicate CVD risk. Moreover, there is evidence that the typically used % 10-year risk score is not easily understood by patients or practitioners. This has led to interest in new risk calculators such as JBS3, which has a primary focus on lifetime risk and greater functionality (e.g., visual displays, interactivity).

Purpose: To explore practitioner and patient perceptions of CVD risk when using the JBS3 lifetime risk calculator or the QRISK2 10-year risk calculator, how patients respond, the associated advice or treatment offered by the practitioner and the intentions of the patient.

Methodology: RICO is a qualitative study with quantitative process evaluation. Twelve general practices are being recruited from the West Midlands and randomised to continue using the QRISK2 10-year risk score (n=6) or start using the JBS3 CVD risk calculator (n=6) to communicate CVD risk within Health Check consultations. Within each practice, a random, stratified sample of 20 eligible patients will be invited to attend a video-recorded Health Check. Data collection and analysis will be organised as follows. Twenty video-recorded Health Checks per practice (n=240) will be coded to quantify the content of consultations (e.g., mentions of CVD risk; % of time discussing risk score). Twelve recordings per practice (n=144) will be qualitatively analysed using deductive Thematic Analysis and a framework derived from Protection Motivation Theory. Semi-structured, one-to-one video-stimulated recall (VSR) interviews will be conducted with patients (n=48) and practitioners (n=18-24) whereby video excerpts from the recorded Health Check consultations will be used to prompt recall and reflection. The VSR interviews will be audio recorded, transcribed and analysed using inductive Thematic Analysis. Medical records of participating patients will be reviewed (12 weeks post-Health Check) to identify possible outcomes of the consultation (e.g., GP appointment, lifestyle referral, statin prescription). Case study analysis will be used in a subsample (n=10) combining the deductive and inductive Thematic Analyses (qualitative data from consultation, and patient and practitioner VSR interviews), with quantitative data on Health Check content and patient record review outcomes.

Results and conclusions: This study will give novel insight including how QRISK2 and JBS3 are used to communicate CVD risk in Health Checks, patient response, how well QRISK2 and JBS3 promote patient and practitioner understanding and perceptions of CVD risk, subsequent patient intentions regarding health-protective behaviours, and underlying mechanisms. Data collection will run from September 2017-January 2019. We will present details of the RICO study methods, progress to date and insights from Patient Public Involvement activities and development work.
Mason Mile Challenge

Introduction: The Mason Miles are family challenges across Kent encouraging everyone to run a mile via free entry, free wristbands and under 16s having the chance to collect cash prizes based on their finish time; with an additional cash reward for bringing a pet! The Mason Mile is hosted and funded by The Mason Foundation and will have support from health engagement specialist, Wellbeing People. The Health MOT Roadshow, which is a tri-sector partnership project designed to increase the uptake of NHS Health Checks and engagement with public health services in Kent, attends Mason Mile events to engage with participants and provide robust referral pathways into healthy lifestyles services.

Aim: The Mason Mile Health Roadshow creates a health focused light touch engagement, based around the principles of ‘Engaged Prevention’ ensuring that there is a consistent brand message communicating with the target audience and providing engagement that empowers individuals to more positive choices around their health and wellbeing via referral pathways and support, whilst capturing robust reportable metrics along the way, to demonstrate the efficacy of The Mason Mile.

Methodology: The Roadshow can be deployed in three ways, firstly as a point of engagement at Mason Mile events; secondly as an event promotion and health engagement tool at chosen locations such as large supermarkets in our target areas and thirdly as a hirable engagement vehicle that organisations can purchase (as supporters of The Mason Mile). The Roadshow itself consists of a vehicle which can support the flexible requirements of event location and is kitted out to include an area for the provision of one to one Health Checks, Interactive Health Kiosks for the provision of ‘Health MOTS’ and Wellbeing Stations to provide simple, fun engagement around health and wellbeing. The Roadshow is staffed by two members of the Wellbeing People team; provides an area for third party providers of NHS Health Checks to work and deliver health checks and creates a focal point for The Mason Mile volunteers to engage with participants.

Results: To date, The Health MOT Roadshow has delivered 2991 NHS Health Checks, 9280 Health MOTs and 1516 referrals to mainstream health and wellbeing services. The Mason Mile received a registration of over 450 runners at a Tunbridge Wells event and most recently the Mason Mile event which took place in Tonbridge on September 22nd 2017, received 320 participants, and the Mason Mile Maidstone sponsored by Golding Homes (social housing provider) on October 21st 2017 anticipates up to 1000 participants!

Conclusion: The Mason Mile Project has ambitious plans in place to grow the project across Kent in 2018 and to achieve a national roll out beyond that; engaging with thousands of people from areas of health inequality across the UK by linking up with social housing providers and generating robust referral pathways into healthy lifestyle services, NHS Health Checks, One You and apps such as Stoptober and Active 10, via the proven methodology of the Health MOT Roadshow!
Healthy Hearts - What we have learned from starting a new cardiovascular disease prevention service in London? Achievements, successes and challenges.

How we established and embedded a community based Cardiovascular Disease Prevention Programme in Central London. After 2 years of running the programme we will demonstrate the lessons we have learned from care planning to accessing the various aspects of CVD prevention (Nutrition, Inactive to Active, Smoking Cessation, Mental Health and Alcohol). We will present contract outcomes including the clinical progression of our clients for example the % of people who have reduced their CVD risk factors in 1 or more areas, demonstrate progression by risk factor, and how we widened the programme to incorporate community based Blood Pressure and Atrial Fibrillation testing through pharmacies, Libraries and Volunteer champions.
Estimating epidemiological trends in stroke incidence from general practice data

Background: Incidence of disease can be estimated from a number of sources, including regional population based registries, national audits, health surveys, electronic hospital admissions records or from GP records. There are currently no recent estimates of the incidence of stroke within England, therefore estimating incidence of stroke has to be approximated from one of the above. Many of these sources are not entirely suited for calculating incidence of stroke. There are no country-wide population based registries for stroke, although two well established regional registries do exist in London (South London Stroke Register) and Oxford (Oxfordshire Vascular Study). Hospital admissions and hospital based audits may be biased against patients that do not get admitted as a result of their stroke. Health surveys may not be sufficiently defined in respect that there are no specific questions in a survey to estimate stroke incidence. The majority of the English population is registered with a GP, GP practices collect longitudinal health data on patients and are a rich source of data which can be used to understand the burden of disease within populations. There are two well established GP research databases available to researchers in the UK - The Health Improvement Network (THIN) is one such database and covers approximately 6% of the general population in the UK, which facilitates extrapolation to the general population. Previous studies have utilised such databases to estimate incidence and burden of disease.

Method: Data were extracted on patients from THIN in order to identify both incident cases of first stroke and the denominator population from which these patients were derived. First incident of stroke was defined according to a curated set of READ codes, reviewed by clinicians. Where a patient had a record of history of stroke, or a record to indicate a prevalent case, then that patient was not considered as a first incidence of stroke. To be included, patients needed to be registered with the practice for 12 months and were permanent residents of the practice. Practices were included if they contributed data to the entire study period. Patient variables extracted for analysis included age, ethnicity, gender, deprivation and year of event.

Results: Crude incidence of first stroke reduced by 8% between 2007 and 2016, this was observed in both males and females. When correcting for age in the same period incidence fell by around 15%. Crude incidence of first stroke was highest in the white population but when age standardised, rates were highest in the black population. Crude incidence rates rose significantly with age, from 0.1 per 1,000 in the 0 to 39 age group, 3 per 1,000 in the 60-69 age group and 16 per 1,000 population in the 90+ age group. No significant differences were observed when assessing incidence by deprivation.

Conclusion: Reductions in incidence can be attributed to better implementation of prevention programmes. Differences in crude and adjusted incidence rates by ethnicity reflect incidence in the younger non-white population. Further reductions in incidence may result in better control and detection of atrial fibrillation.
This Girl Can: Analysis of Women’s Facebook Posts

Introduction: Sedentary lifestyle is increasing at an alarming rate across people of all age groups and ethnicities. Modern lifestyles and work schedules are causing younger people to be sedentary or irregularly active. These unhealthy habits developed at a young age are more likely to persist in later life. The advanced technology in disseminating health messages and providing social support networks can be used as a health promotion platform to reach wider audiences and encourage and support physical activity. This Girl Can (TGC), a national campaign for women, uses social media to challenge barriers to physical activity. Understanding how women engage with the campaign and their reported experience on social media may provide insights on how barriers to physical activity can be successfully overcome, and may in turn; inform future national and local campaigns.

Purpose: The aim of this study is to explore women’s experience with the national campaign ‘This Girl Can’ through their communication on Facebook, and their strategies for overcoming barriers to physical activity.

Methodology: This Girl Can Facebook posts during June 2017 were collected for analysis, representing the campaign page activity. 263 transcripts were recorded from 166 participants. Posts were coded according to themes using framework analysis.

Results: High levels of engagement were observed and participants were accessing the campaign from a wide geographical spread in the UK. Most women had a positive experience engaging with This Girl Can, expressing feelings of love and happiness towards the campaign. Support was one of the main themes identified in this study, from both the campaign facilitators and fellow Facebook users of the campaign. Other main themes include sharing of information on how to overcome barriers to physical activity and sharing of personal experience. Black and Minority Ethnic groups experience was underrepresented in the Facebook interaction captured during the study period.

Conclusions: Women share their personal experiences on social media, and in doing so, they not only reinforce empowerment to be more active themselves, but they also encourage others to engage in activity. Through this social media campaign, various means of support were provided; this appears to be the main facilitator for addressing barriers to physical activity and thus could be a useful tool to encouraging better cardiovascular health in women at local and national levels. The under representation of Black and Minority Ethnic women should be further explored to ensure that vulnerable community groups with a higher risk of poor cardiovascular health, are not being marginalised by an otherwise well reached campaign.
Using a systems approach to raising standards in the NHS Health Check

Using a systems approach to raising standards in the NHS Health Check Quality Review and Audit of NHS Health Check programme 2013/4 – 2016/7. In order to identify strengths and weaknesses in next steps understand outcomes. Findings for the combined 4 F/Y 45% of HC patients were male and 55% female. The average age of the HC patients was 54 years. 36% of HC patients were aged 40-49, 30% aged 50-59, 27% aged 60-69, and 6% aged 70-74. Socio-economic deprivation[1]: 31% of HC patients were from the least deprived quintile (Q5), 26% from Q2, 13% from Q3, 14% from Q2 and 13% from the most deprived quintile (Q1). 85.9% of the eligible population had been offered a health check. Blood Pressure: 25% (3,893 patients) had a high BP reading, 53% (8,385 patients) pre-high, 22% (3,389 patients) CVD Risk 2% (208 patients) were in the highest risk category (> 30% risk), 7% (861 patients) were in the next highest risk category (20-30% risk), 24% (3,137 patients) were in the lowest risk category (> 10% risk). Pre Diabetes: 3,292 trigger-patients tested, 583 (18%) were potentially pre-diabetic and 78 (2%) potentially diabetic. 3548 non-trigger-patients tested, 315 (9%) were potentially pre-diabetic and 26 (1%) potentially diabetic. 

AUDIT C Of the 8,207 patients with an Audit C score, 8% were in the high risk category for alcohol consumption, and a further 31% in the increasing risk category.

BODY MASS INDEX (BMI) Of 15,570 HC patients with a valid BMI, 6,319 (41%) were overweight, 3,592 (23%) were obese, and a further 364 (2%) were morbidly obese (in total, 66% of HC patients had excess weight). SMOKING: of those with a smoking status, the proportion who smoke remained very stable over the 4 F/Y, at 14% (2,001 smokers in 4 F/Y). CHOLESTEROL, the proportion with raised cholesterol (total cholesterol more than 5 mmol/litre) remained very stable over the 4 F/Y, at 60% (8,348 patients). Initiatives: Virtual Support Network - Each GP practice nominated a designated health Check lead Nurse/Health Care Assistant. 

- network
- Primary Care dashboard contains data of all Public Health commissioned service delivered through primary CareMobile provider to support GP practices, works alongside GP’s looking into a cluster model
- Embedding Home Blood pressure Pathway into NHS Health Checks – a public Health led system approach through use of digital technology to standardise the identification and treatment and care of high blood pressure, tackles GP demand management by using other health practitioners and improving self care and management. Raising the profile of NHS Health Checks by embedding into the local CCG Warrington Primary Care contract. Health Check indicators embedded into primary Care contract:

Number of people invited for a health check

Number of health checks completed%

Offered lifestyle advice%

Referred to wellbeing services%

Prescribed statins%

Prescribed antihypertensive%

Results -Warrington has demonstrated an improvement in activity of 117% for Q1 in 2016/7 compared to the previous 4 years.
Prevalence and diagnosis of hypertension in Islington: an analysis based on primary care electronic medical records

Introduction: We hypothesise that under-coding may be one of the contributing factors to the currently existing hypertension prevalence gap. Approximately 13.5 million people in England are expected to be living with hypertension. However, at present just under 8 million people (~59%) have been diagnosed. To close this prevalence gap (~41%), a significant improvement in detection is required and it has been suggested that over a 10 year period, 7,000 quality adjusted life years and £120 million could be saved if England achieved a 15% increase in the number of adults who have hypertension diagnosed. Previous research has suggested that diagnosis of hypertension in electronic medical records is commonly under-coded. Under-coding occurs when a patient is clinically diagnosed with hypertension but the standardised Read code is not applied to the patient’s electronic medical records. We propose that using different criteria to that utilised by the Quality and Outcomes Framework (QOF) to estimate prevalence will result in a narrowing of the prevalence gap.

Purpose: Hypertensive patients within Islington were identified from primary care electronic medical records based on Read diagnosis code and alternative criteria to that currently used by QOF in order to gain a better understanding of the extent to which patients are under-coded. Potential changes in the hypertension prevalence gap were also examined based on the use of new criteria. Methodology: We included patients registered in the Islington Fact Engine on 31/03/2016. Three definitions based on Read diagnosis code, antihypertensive drug prescriptions and abnormal blood pressure were used to identify hypertensive patients. We compared the prevalence in the Fact Engine with figures published by QOF. Age-specific prevalence by sex was compared with figures published by Health Survey England. Local figures published by Islington’s Joint Strategic Needs Assessment were used to calculate the expected prevalence by practice. Changes in prevalence and prevalence gap by practice based on the use of our criteria were then calculated.

Results: If all of the individuals identified as hypertensive using the alternative criteria were correctly coded, the increase in prevalence by practice would be significant (11.0% vs. 18.1%, P=0.001), as would the decrease in prevalence gap by practice (57.0% vs. 28.5%, P=0.001).

Conclusions: Practice records need to be audited using alternative criteria to increase detection of hypertension and to reduce the prevalence gap. Though under-coding is a contributing factor to the existing prevalence gap it does not account for all of this gap. Consequently, increasing opportunistic blood pressure testing also needs to be addressed; particularly in outreach settings such as community pharmacy.
The Wales Inverse Care Law Programme, a targeted approach to cardio-vascular risk assessment: initial results of evaluation

Introduction: In 2015, Wales introduced a targeted cardio-vascular risk-assessment programme – the Inverse Care Law Programme – with the aim of reducing premature mortality from cardiovascular disease in socioeconomically deprived areas. It sought to achieve this by improving identification and management of cardiovascular risk factors in targeted populations. Initial evaluation, undertaken collaboratively between Cardiff University, Swansea University and Public Health Wales (PHW), examined the extent to which programme-implementation was successful in two Health Boards.

Purpose: The initial evaluation addressed the following question: to what extent do individuals invited to these programmes subsequently receive management for their cardiovascular risk factors? The aim was to examine the reach and uptake of the programme and to determine whether potential issues identified in health-checks are followed up.

Methodology: The evaluation used data from routine General Practice Systems, the Welsh Demographic Service (WDS) and recorded health-check activity. Data were held in the Secure Anonymised Information Linkage (SAIL) Databank at Swansea University which allows the anonymous tracking of patients via an Anonymised Linkage Field through various healthcare systems using privacy protecting data linkage. Participant’s activities both at, and subsequent to the programme intervention for the purpose of follow-up are identified by READ codes from routinely collected primary care data held in SAIL, as well as demographic information from WDS. Data were extracted independently by analysts from PHW and Swansea University for validation purposes. Participants were included in the study cohort on the basis of pre-designated READ code for invitation and attendance at a health-check. READ codes also permitted identification of any activity relevant to the programme using a set of coding definitions. This allowed the use of clearly defined, time-stamped activity data to follow individuals over time and compare the management received against recommendations from published guidance.

Results: Results cover the period February 2015–November 2016. There was a good take up with 94% of respondents to an invite completing a health-check (n=7247). More women (54%) than men (46%) attended a health-check. Of those attending 96% were in the three most deprived quintiles. 27% of attendees were referred to their GP for follow-up, the rate of referrals increased with age. Significantly more men (36%) were referred than women (19%). 71% of attendees were overweight/obese–6% of these were referred to weight management services. 3% of those tested for HbA1c had an elevated result, 42% of those with an elevated result were subsequently diagnosed by their GP as diabetic. 20% of those tested for blood pressure had an elevated result, 24% (n=347) were subsequently prescribed anti-hypertensive medication. 13% had an elevated cholesterol result (68% were men and 32% women) and of these 15% (n=163) were subsequently prescribed statins (62% were men and 38% women).

Conclusion: The programme continues to be rolled out across Wales, with the initial two Health Boards sharing learning to ensure that an appropriate programme is implemented. Initial results demonstrate that the right population are being targeted and that referral programmes are effective. Further evaluation of the programme will be undertaken–quantitative and qualitative.
Integrated Cardiac Disease Prevention Programme (Cardio-wellness-4-Slough)

Introduction: Innovation is vital where budgets are limited and under increasing pressure. Whilst individuals have a key role to play in improving their own health and wellbeing, this can only be possible if the right support at the right time is available. In Slough although there has been a reduction in early death rate from heart disease and stroke, current estimates remain worse than the England average[1]. In 2014/15, there were 9,500 patients in Slough with diagnosed diabetes which amounts to (8.4% of the population)[2]. This is significantly higher than the national average of 6.4 % (Slough CCG)[3]. It is estimated that 63.3% of the adult population in Slough are overweight, 40% of whom are estimated to be obese[4].

To address this challenge and reduce the burden of long-term conditions in Slough, an integrated cardiac disease prevention programme CardioWellness4Slough – CW4S was established in January 2017. The objectives of the programme are as follows:

- Triage a minimum of 1500 referrals annually and refer to evidence based integrated CVD prevention pathways
- Increase the offer and uptake of Health Checks to Routine and Manual workers and Men (opportunistic and targeted approach)
- Reduce modifiable risk factors for cardiovascular disease in at least 800 people per annum
- Reduce the level of health inequalities in Slough.

Methodology: Innovation, integration and delivery through partnerships

CW4S aims to reduce early deaths from cardiovascular disease in Slough using an “integrated approach” to delivery. This is achieved by providing a single point of access to a range of evidence based lifestyle services currently available in Slough. By adopting a single point of access system, which includes a robust initial assessment and screening for eligibility process, patients can be triaged to NHS Health Checks, talking therapies (IAPT), falls prevention, the National Diabetes Prevention programme, Alcohol and substance misuse, physical activity and other community health improvement and prevention services in Slough. As well as signposting residents to appropriate lifestyle change services, telephone based support is also provided by Wellness Coaches.

Initial Results / Outcomes CW4S started in January 2017 – results from the programme so far show that: 1250+ referrals have been triaged

400+ NHS Health Checks have been undertaken 878 behaviour change referrals have been made (with 563 service users referred to weight management services)

373 service users have been referred to their GP for further assessment Service Users engaged are as follows: 81% are of BME origin 30% have a Routine & Manual occupation code 36% Males 74% from working age population (25-65 years)

Conclusion CW4S has shown that with innovative thinking and partnership working, stakeholders can work together to achieve the same goal. Longer term outcomes include improved methods of ‘risk identification and reduction’ in targeted populations ‘outcomes’ for patients – through improved tracking and progress monitoring during and after a lifestyle programme has completed.
Can alternate providers improve the uptake Health Checks among high risk populations and subsequent referrals to the local lifestyle services?

Introduction  Heart disease remains the second largest cause for mortality in Kingston. There is NHS Health Check programme in place to identify and manage Cardiovascular Disease risk in adults 40-74 years. However one of the challenging aspects of the NHS Health Check programme in Kingston is to engage men, ethnic minorities, marginalised population and making subsequent referrals to the lifestyle services E.g. Despite of having completed more than 23,000 Health Checks between 2010-2015, only 4000 referrals were made to the local lifestyle services in the specified period.

Aim   The project aimed to increase the uptake of Health Checks in men, ethnic minorities, identify people at high risk of CVD and the subsequent referrals into the local lifestyle programmes. Methodology  We commissioned local Leisure Centres to provide opportunistic Health Checks through their in-house staff who were qualified exercise instructors. The staff were pre-trained and their competency to conduct NHS Health Checks was assessed against the criteria specified in the national competency framework. The pilot was set up from four leisure centre venues. A flexibility of 7 day service was provided from 07.00 to 21.00pm (outside GP surgery and pharmacy hours). An advance booking line was set up. Press releases and digital platforms such as Twitter, Facebook and Instagram were used to advertise the service to the local residents. Clients were recruited through targeted outreach, advanced outreach and location specific promotion. Incentives such as half hour pilates and yoga sessions were offered to the clients in exchange for taking up the NHS Health Check screening. Moreover, targeted outreach was carried out in areas of deprivation identified through a mapping exercise such as temples, pubs, farmer markets, Estates and Job Centre.

Results   A total of 365 NHS Health Checks were completed of which 174 (48%) patients were referred to local lifestyle services. 117 (32%) clients were males and 248 (68%) were females. 123 (39%) participants were in employment whereas the remainder were either unemployed, retired or in education. 30(8%) participants had a QRISK of 20% and above, 85 (23%) had a QRISK of 10-19% and 250 (69%) had a QRISK of 9.9% and below. 104 (18%) screenings were completed by ethnic minority population while 235 (73%) were White British.

Conclusion   Overall a significant increase in the number of referrals were observed. In men, no significant increase in uptake was demonstrated. Although there were relatively few participants identified with a high QRISK, they were referred to the lifestyle programmes. Changing behaviour among men remains a national challenge. Improved engagement with the unemployed and/or retired groups from this study indicates the potential for better engagement in challenging populations when assisted by unconventional providers.
Introduction: The National Institute for Health and Care Excellence (NICE) public health guidance 38 “Preventing type 2 diabetes risk” 2, recommends a two stage approach to identify people at high risk of developing diabetes. This involves using a validated risk assessment tool to identify people at high risk of developing diabetes and then a blood test for those identified at high risk to confirm risk. However, until recently, there was no common definition of “high risk” for type 2 diabetes. In 2016, the Expert Scientific and Clinical Advisory panel (ESCAP) recommended that a validated risk assessment tool should be used to identify people at high risk of diabetes and a common definition of “high risk” should be adopted. Alternatively, providers may continue to use the existing diabetes filter and thresholds if it is not possible to transition to a validated tool. The NHS Health Check programme best practice guidance was updated to reflect this and an Excel tool developed to help local areas understand how different risk assessment tools perform.

Methods: The four risk assessment tools compared were: QDiabetes, Cambridge risk score, Leicester Practice Risk and the Leicester Risk Assessment Tool. Five years of Health Survey for England data were used to estimate the number of individuals identified as high risk using each of the risk assessment tools using the thresholds defined by ESCAP, and of those, who were correctly identified as having non-diabetic hyperglycaemia (HbA1c 42-47mmol/mol) or undiagnosed diabetes (HbA1c ≥ 48 mmol/mol). The estimated populations used in the Excel tool were based on Office for National Statistics population estimates for people aged between 40 and 74.

Results: Overall, for England, all risk assessment tools correctly identified a higher proportion of individuals with non-diabetic hyperglycaemia or undiagnosed diabetes compared to the diabetes filter. The Leicester risk assessment tool correctly identified the highest proportion of individuals with non-diabetic hyperglycaemia, closely followed by QDiabetes. All tools, with the exception of the Leicester Practice risk tool, identified lower numbers of people eligible for a blood test, i.e. as high risk, but correctly identified a higher number of people with non-diabetic hyperglycaemia.

Conclusion: The risk assessment tools are more effective than the diabetes filter at identifying people who, following a blood test, are identified with non-diabetic hyperglycaemia or type 2 diabetes.
Spatial Planning for Health

Introduction: There is considerable debate about the strength and quality of the evidence base which underpins principles of good design of the lived environment and the causal pathways to good mental and physical health. In England, there has been no single source of summary evidence to guide good practice. The University of the West of England (UWE) was commissioned by Public Health England (PHE) to provide a UK focused evidence review which PHE adapted into a more ‘user-friendly’ version to help public health professionals working with planners in local government to support planning decisions which can promote health.

Methods: UWE conducted an umbrella literature review to assess existing review level evidence. Unlike traditional systematic reviews, umbrella reviews involve a ‘rapid review’ approach to evidence synthesis to produce an evidence overview in relatively short time. Key objectives were to: assess the impact of the built and natural environment on health in five key domains; appraise the quality and strength of the available evidence; use the findings of the review to develop a series of diagrams illustrating the linkages between planning principles, impact and health related outcomes; use UK focussed evidence and case studies, wherever possible.

Results: Umbrella literature reviews bring together a wide range of evidence to explore what is known about a topic to guide decisions of policy makers. The results of the project are a series of practical diagrams that illustrate the linkages, and strength of evidence, between spatial planning and health based on the findings from the umbrella literature review of the impacts of the built environment on health for each 5 domains of: built environment topics; neighbourhood design, housing, healthy food, natural and sustainable environment, and transport. The full research study upon which the diagrams were based are also publically available.

Discussion: Although there is much guidance supporting action on the built and natural environment to improve health outcomes, the evidence base is still a matter of debate amongst the scientific and the practitioner communities. Using umbrella review methodology to examine the strength of the evidence of these health impacts, we developed a series of diagrams that illustrate the linkages and strength of evidence in five domains. These are intended to support public health and planning professionals when considering the health impacts of proposed local planning developments. We will present the findings of the review and summary diagrams for the five domains.
Frimley Health and Care STP - progress on prevention

"Frimley Health and Care is one of the smaller STPs with a population of 750,000. However as evidence by right care there is much opportunity to reduce variation and improve outcomes for the population. We have worked collaboratively across the STP focusing on our opportunities to change pathways/outcomes for people with CVD.

We held a system wide event based on our right care data in June, with a focus on angina, arrhythmias, heart failure and prevention.

The system wide event led to task and finish groups to review our opportunity in these areas.

We have also worked closely with the AHSNs that span our STP and the BHF.

For example Berkshire have worked with their AHSN to roll out Watch BP devices to all 52 practices. In addition they have run the quintiles project, reviewing and improving care for patients with AF to prevent strokes. Within this project a quality improvement arm ensured sustainability at practice level. This project will be rolled out across Surrey Heath CCG and will then move on to North East Hants and Farnham CCG to ensure the entire STP has reviewed and improved the prescribing and management of AF.

The prevention task and finish group will focus on hypertension and is working with all clinicians in primary care, including practice nurses and pharmacists to agree the whole system changes required to improve management of hypertension.

In addition the cardiovascular group is developing a programme of delivering both BP and pulse checks for the community across the next 18 months.

To further aid in identification of patients with AF Alivecor devices will be rolled out across Surrey Heath CCG, with data analysed by KSS AHSN.

The STP are also developing further the community arrhythmia service to ensure a robust model is delivered for the whole STP population, mimicking the work of Berkshire. This will lead to faster diagnosis and treatment of arrhythmias without the need to refer on to secondary care (as appropriate). This will also contribute to faster anticoagulation for patients with AF identified through this route."
Service evaluation protocol comparing the effect of a behaviourally enhanced OneYou vs NHS branded leaflet to increase uptake of NHS Health Checks

The NHS Health Check is a significant part of the strategy to tackle premature mortality and promote healthy lifestyles. Uptake nationally is lower than the target of 66%. This study aims to assess the impact of different leaflets on uptake of NHS Health Checks for 20 practices in Plymouth. This poster outlines the study protocol. During the usual invitation process, practices sending out letters will be randomised to receive one of two versions of a Health Check information leaflet, to send out alongside their letter invitations: (1) using NHS branding, as prior leaflets have done (2) OneYou branding in line with the marketing campaign that takes place in Plymouth simultaneously. The outcome measure will percentage increase in uptake of NHS Health Check; a comparison between these two randomised groups. The study will highlight whether the OneYou branded leaflet under the circumstances of a marketing campaign is more effective than the commonly used NHS branded leaflet.