Steve	Maddern	Wiltshire Council	Review of patient notes who were invited for an NHS Health Check but did not attend to determine if they subsequently developed cardiovascular disease.	Abstract Aim: To review patient notes who were invited for an NHS Health Check but did not attend to determine if they subsequently developed cardiovascular disease. Background: In Wiltshire, the NHS Health Check programme began in 2011. This evaluation builds on an outcome evaluation previous completed for those that did attend for an NHS Health Check. Methodology: Searches were undertaken across three GP practices to identify patients who had been invited for an NHS Health Check but did not attend and had subsequently developed cardiovascular disease. Eight case studies were created based on their demonstration of significant adverse clinical outcomes. Results: In the three general practices that participated, 6,989 patients were clinically coded as having been invited for an NHS Health Check between 2012 to 2017. 55.8% of these patients were coded as having had their NHS health check completed. 44.2% of patients invited for an NHS Health Check did not have a completed NHS Health Check clinically coded in their medical records. 6.3% of these patients were subsequently clinically coded as having later developed a cardiovascular disease. The case studies found demonstrated a variety of different cardiovascular diseases, all of which are preventable. In all cases risk factors, such has high blood pressure, would have been likely to have been present at the time of an NHS Health Check. Lifestyle advice and preventative medicines could have been initiated, and in turn decreased the risk of cardiovascular events and their long-term morbidity occurring. Conclusion: It is likely that people who are invited for an NHS Health Check and do not attend may subsequently develop cardiovascular disease in the long term. The understanding of the reasons for non-attendance should be used to inform promotion activities. External funding N/a

Caroline	Golder	Wirral Community NHS Foundation Trust	Exercise & education supporting patients with heart failure	Abstract Poster/Oral abstract Presentation THE USE OF EXERCISE AND EDUCATION TO SUPPORT PATIENTS WITH HEART FAILURE Wirral Community NHS Foundation Trust Golder, C and Jones, H Introduction NICE (2010) states that people with heart failure (HF) should be offered a supervised group exercise programme, along with psychological and educational support. Previous studies have found that Cardiac Rehabilitation (CR) can help improve functional capacity in HF patients (Ghashghaei et al. 2010; Kerrigan et al. 2014) Methods Two hundred and eighty one (N=281) heart failure patients attended for a CR assessment over a two year period from April 2015- April 2017. All patients were clinically assessed by a CR Nurse or an Exercise Physiologist prior to starting exercise and education. A 6 minute walk test (6MWT) to measure functional capacity before commencing eight weeks of exercise and education was undertaken. Results In April 2015-2016, one hundred and three (N=103, 61%) completed eight weeks of exercise along with a pre and post 6MWT. From April 2016-17, eighty three (N=83, 73%) completed the programme. Out of the completers, one hundred and fifty nine (N=159) patients increased their walking distance, twenty four (N=24) decreased their distance and three (N=3) showed no change from pre-6MWT to post-6MWT. Over two years one hundred and twenty four (N=124) patients did not complete the programme due to various reasons. The above data shows that year on year we are increasing our completion rates. Conclusions Cardiac rehabilitation has proved to be an effective programme to improve functional capacity in HF patients as the majority of patient improved their walking distance when comparing data from pre-6MWT to post-6MWT. External funding N/A

Jen	Bayly	KSS AHSN	KSS AHSN Alliance for AF -Detect - Review - Protect	Abstract Aim To reduce the number of people dying or disabled by AF-related stroke, by optimising the use of anticoagulants in line with NICE CG180 guidelines. Impact so far We collaborated with 3 independent review organisations to work in 29 GP Practices from December 2016 to May 2018 across Kent, Surrey & Sussex (KSS). The project identified 1,390 individuals who were eligible for anticoagulation and would benefit from a change of treatment to reduce their risk of AF-related stroke. By the end of May 2018, 503 individuals had had their medicines optimised by their GP Practice. This has reduced the risk of AF-related stroke to such an extent that the equivalent of 14 AF-related strokes have been avoided, avoiding debilitating effects on individuals and their families and avoiding costs to state-funded Health & Social Care of over £380,000. The impact would be far greater if all of the remaining 887 individuals were optimised on anticoagulation therapy. A further 24 AF-related strokes could be avoided, with an additional Health & Social Care cost saving of over £620,000.Opportunity If we extrapolate the data for the KSS population of 4,739,731 based on the current impact with only around 1/3 of the identified eligible patients being treated this could potentially save 202 strokes in 1 year, with a potential cost saving of £5,691,911 over a 5 year period. If this data was extrapolated for the KSS population and scaled so all the eligible patients were treated, 559 strokes could be saved in 1 year, with a potential cost saving of £15,729,139 over a 5 year period. Next steps We believe the project has made a difference to our population. However, there is more to do, and support is needed to help us share our learning and scale-up the project across the region. External funding MEGs Grants

Kate	Mackay	AHSN for the North East and North Cumbria	Save a life, stop a stroke: Diabetes Podiatry and detection of Atrial Fibrillation	Abstract Introduction AF is a heart condition that commonly displays no symptoms. Without treatment those living with AF are at increased risk of a stroke costing the NHS on average £23,315 per patient. Patients with diabetes have their pulse checked as part of their annual foot check review to detect the presence or absence of a foot pulse to prevent diabetes complications. Aim To increase the diagnosis of AF using foot pulse checking during patients diabetes annual foot review. Methodology A three-month pilot (January 2016 – March 2016) was conducted by County Durham and Darlington NHS Foundation Trust and has been part of a wider AF Programme run by the Academic Health Science Network for the North East and North Cumbria (AHSN NENC) in conjunction with the Northern England Clinical Networks. During the initiative, 45 podiatrists were trained to spot heart irregularities, using a Doppler, when taking pulse readings. Any person detected with an irregular pulse was referred to their GP for a 12-lead ECG to confirm diagnosis.Results5,000 diabetic patients had their feet pulse-tested. 10 patients with previously unknown AF were detected, indicating that one new case of AF could be identified for every 500 patients. With 1 in 20 patients, either untreated or inappropriately treated, having an AF-related stroke, two patients each year would be prevented from having an AF-related stroke. Conclusions The pilot has been so successful that the work continues in County Durham and Darlington, and is being spread locally via the Northern Diabetes Footcare Network. If all patients with diabetes, in England, had their pulse checked as part of the annual review screening for an irregular pulse 6800 people could be detected with AF. If all these people were correctly anticoagulated, 340 AF-related strokes could be prevented as well as saving the NHS £7.9M. External funding None.

Steve	Smeeth	Public Health England	NHS England and Public Health England Heart Age Tool Community Pharmacy Public Health Campaign Partnership	Abstract Prevention at scale: Promoting Heart Health in Community Pharmacies A partnership approach between Public Health England Southwest and NHSE (South) Southwest Introduction and Aim In February and March 2018, pharmacies in the NHS England South (South West) region were asked to increase the public awareness of heart health and reduce the risk of heart attack and stroke by encouraging adults to complete Public Health England's online One You Heart Age Tool. Methodology Pharmacies received pre campaign information including resource delivery dates, visuals of campaign materials and key campaign messages. Pharmacies recorded the number of conversations about heart health and captured feedback from customers. Communication and evaluation were central to the campaign. Results A pharmacy participation rate of 94% (592 of 628 pharmacies) was achieved. Based on these responses: 8,822 conversations regarding the campaign were recorded1,295 patients received a blood pressure check due to the Heart Age campaign3,532 (40% of) conversations occurred during Medicine Usage Reviews or New Medicine Service consultations40 pharmacies promoted the campaign through social media channels38 pharmacies put on special events promoting the campaign112 pharmacies provided additional campaign activity such as presenting the campaign on pharmacy TV screens, working with local GP practises to highlight the campaign, and providing areas for customers to complete the Tool using blood pressure monitors, scales and iPads. Conclusion The findings of the campaign showed how effective and influential the role of the pharmacy can be in prevention of CVD. Data from the Heart Age tool showed that when compared to the non-pilot areas, the pharmacies in the South Southwest The partnership was so successful that the Heart Age Tool campaign is being scaled up and is currently being promoted in the 4 South NHSE regions with over 2,500 pharmacies expected to take part.

Don	Lavoie	Public Health England	Preventing ill health by risky behaviors - smoking and alcohol CQUIN	Abstract The preventing ill health by risky behaviours CQUIN focuses on identifying and influencing NHS inpatients who smoke and/or drink above low risk to change their behaviour through brief advice and appropriate referrals. Why smoking? Nearly 1 in 5 adults smoke Currently, 28% of total hospital admissions are attributable to smoking11% (840k) of the smoking population are in hospital in any given year Smoking costs the NHS £2bn annually Smoking is the single largest cause of health inequalities and premature death, responsible for 17% of all deaths in people aged 35+ Why alcohol? Alcohol misuse contributes (wholly or partially) to 200 health conditions including: Cardiovascular conditions Liver disease Cancers Alcohol plays a role in over 1m NHS admissions per year Alcohol is estimated to cost the public purse £21bn per annum, of which £3.5bn are costs to the NHS. 75% of these costs are incurred by people who are not alcohol dependent, but whose alcohol misuse causes ill health What are NHS trusts asked to do and how well did they perform? CQUIN Element Threshold / Target Performance in Q4 2017/18Indicator 9aScreen 90% of inpatients for smoking On average NHS trusts screened 78% of patients Indicator 9bGive brief advice to 90% of inpatients who smoke Delivered brief advice to 79% of smokers Indicator 9cProvide referral and offer medications to 30% of smokers Referred 47% of smokers to stop smoking services Indicator 9dScreen 50% for alcohol use NHS trusts screened 75% of patients Indicator 9eGive brief advice or referral to 80% who drink alcohol above low risk Delivered brief advice or referral to 72% of patients drinking above low risk This is the first year of the CQUIN. In year 2, NHS acute trusts are now participating. Performance updates will be reported at the conference.

Jo	Stevens	Pennine Care NHS Trust	Self-monitoring of high blood pressure and AF after stroke - Community stroke and community pharmacy working together	Abstract Background Hypertension is the most important potentially reversible risk factor for stroke in all age groups; high blood pressure (BP) is also associated with increased risk of recurrent stroke in patients who have already had an ischemic or hemorrhagic event (Castilla-Guerra L, Fernandez-Moreno Mdel C, 2016).People are being discharged from hospital after stroke more swiftly than ever before. Inpatient monitoring periods are shorter and people are frequently discharged with high BP which needs management in the community. The nurses in Bury community stroke team (CST) found that they were spending a high proportion of their time managing hypertension. In addition, patients were unsure of the recommended blood pressure, and wanted to take control of their recovery after stroke. The project Prestwich community pharmacy purchased several blood pressure monitors, with the added function of AF detection to loan to patients through the CST. In partnership with a patient advisory group, a text reporting and reminder system was set up and documentation following the British Hypertension Society guidelines were devised. A pathway for monitoring was established which involved education delivered by the pharmacy staff or the CST. Remote reporting of BP enabled the nurses in the CST to act when necessary, however giving responsibility back to the patients for monitoring and reporting their BP enabled better use of resource. Outcomes measured included; length of time of good BP control, time saved by nurses, AF detected, patient satisfaction and knowledge Outcomes There was a high level of patient satisfaction and patients were better informed about BP, although patients did not like the remote reporting. Out of 25 patients monitored with the system 5 new cases of AF were detected and confirmed BP was controlled more quickly (within RCP guidelines within 20 d average after, opposed to 42 d prior to the intervention)

Ian	Riding	Wigan Council	Workplaces an untapped market	Abstract Introduction As well as planned core delivery within primary care setting the service delivery model also includes targeted and opportunistic delivery within other key settings such as workplaces in order to reach key cohorts of the population who are less likely to attend primary care. Aim Reduce health inequalities, including socio-economic, ethnic and gender inequalities through targeted approaches to increase uptake of Be courageous and do things differently Improve coproduction and collaboration between NHS Health Check programme delivery and local lifestyle and wellbeing services Methodology NHS Health Check delivery has developed an outreach model that is taken to targeted settings to increase uptake amongst cohorts who have traditionally been less likely to attend their Health Check appointment within primary care The offer includes delivery within workplaces across the borough and is aligned and compliments with wider workplace health offer available to Wigan businesses Flexible model that is adapted to meet the needs of individual businesses i.e. Mini and Full NHS Health Checks offered to none eligible residents but funded by the business Supports the Councils approach with developing new relationships with businesses within the borough as part of the Wigan Deal Local lifestyle services collaborate with the Health Check provider during workplace roadshows Development of workplace specific Health Check collateral and feedback reports Results Increased uptake of Health Checks Identification of working age individuals with high cardiovascular risk scores Health checks provides a springboard for the delivery of other workplace health interventions Conclusion The provision and delivery of Health Checks within workplaces not only helps reach residents who would be less likely to attend an appointment within primary care but they also provide a unique engagement tool that helps opens up opportunities to embed and collaborate with workplaces on other public health programmes. Win-Win for Public Health and Business.

Ryan	Dias	Derbyshire Healthcare NHS Foundation Trust	Bitesized Teaching: Satisfying The Appetite For Ward-Based Knowledge Of Physical Health Problems	Abstract Understanding physical health in the context of mental health care represents a unique set of challenges. There can often be barriers between physical and mental healthcare which can detract from satisfactory healthcare delivery, particularly for patients with severe mental illness. Whilst most Trusts have protocols regarding physical health monitoring for patients with serious mental illness, there are still gaps in knowledge regarding physical health complaints outside of this framework. Bitesized Teaching has been designed with this specific need in mind. Bitesized Teaching is an initiative that has worked successfully in Yorkshire and Derbyshire Mental Health Services for the last 4 years. It involves the delivery of high impact, 10 minute tutorials on physical health topics, which take place once a week in the ward lunchtime handover period. This means that staff do not have to leave the ward to attend a teaching session and that with both the incoming staff and outgoing staff at the ward handover, tutorial attendance is optimised. The tutorials are aimed at meeting the needs of Nursing Staff and Healthcare Assistants and are delivered by Junior Doctors once a week. With the support of Health Education England, it is now an initiative which has been rolled out to the rest of the country. This is an initiative that is easy to implement and has proved transferable across different ward-based settings not least because of its minimal financial implications. Bitesized Teaching has been audited by the use of brief questionnaires, focus group commentary and personal testimony from ward staff. Analysis has revealed a perceived improvement in knowledge of physical health issues of 67% on average. It suggests that the concept of short, focused tutorials is highly effective as a training tool for ward-based work.

Sheila	Hardy	University of Hull, Charlie Waller Memorial Trust	Educating primary care professionals about reducing the risk of cardiovascular disease in people with a mental illness	Abstract Introduction: Compared to the general population, people with a mental illness have a higher risk of developing cardiovascular disease. This is recognized by Public Health England, Health Education England and NHS England. Educating healthcare professionals caring for this group of people in primary care settings can increase the monitoring of this group, however these professionals have poor access to the appropriate education. Aim: To allow primary care professionals access to appropriate education by providing free training. Method: Educational materials and a 'train the trainer' toolkit were commissioned by Health Education England and accredited by the Royal College of GPs and the Royal College of Nursing. The training is provided through the Charlie Waller Memorial Trust. The 'train the trainer' education is offered by the charity as a preference to one off training because of its sustainability. Results: Interest from organizations such as Clinical Commissioning Groups has been high, but most have no structure or funding in place to host the education in a sustainable manner. Additionally, releasing staff from practice is often a problem. Therefore, some have requested a one-off training directly to a few health care staff or have not been able to take it up. Where Clinical Commissioning Groups have organized the training of trainers, they have struggled to support them to roll it out. The rolling out of training by trained trainers has been successful when it has been funded as a specific project (NHS Trust as part of a CQUIN), and by staff trained as trainers who have autonomy and can organize it themselves (health trainers employed by a city council).Conclusion: To reduce the risk of cardiovascular disease in patients with a mental illness, there is a need for organizations to have a system and funding in place to support the education of healthcare professionals.

Pamela	Smith	Salford Royal Foundation Trust	Vascular Podiatrists collaborate with the cardiac rehab team to develop a supervised exercise programme to improve pain free walking for claudication symptoms	Abstract In Salford, a community structured exercise programme was developed as a collaboration between the Podiatry led vascular triage service (VTS) and the cardiac rehabilitation team (CRT).Aim To fully comply with NICE CG147 the VTS in Salford were commissioned to establish a supervised exercise programme specifically for patients with peripheral arterial disease (PAD) and symptoms of claudication. Implementation The CRT in Salford is a multidisciplinary team, consisting of specialist nurses, physiotherapists, occupational therapists and specialist exercise trainers who are suitably qualified to assess patients and give medical clearance for exercise. They support and motivate patients with a broad range of vascular diseases and therefore were ideally placed to incorporate our PAD patients. They provide an educational component to increase patients' awareness of PAD, associated cardiovascular morbidity and mortality and the importance of making lifestyle changes such as smoking cessation, weight management and mental wellbeing. This has a positive impact on their outcomes and their QOL. Meetings were attended by clinicians/managers from the VTS / CRT, vascular surgeons and commissioners to decide on pathways, referral criteria and gatekeepers into the service. A business plan was developed to provide 2 hours of exercise a week for 3 months for patients with symptomatic PAD. Patients were given an initial assessment and an individual tailored exercise programme was agreed 12 month outcomes89 patients agreed a referral to the exercise programme54 completed the 12 week programme (61% uptake)35 failed to complete the programme (39%)Of the 54 that completed the programme 39 (72%) reported improved pain free walking13 (24%) reported no change 2 (4%) reported deterioration and were referred to the vascular surgeons Conclusion The exercise programme has significantly improved nonsurgical treatment options for our patients, reduced surgical interventions, improved overall patient outcomes and saved costs incurred by vascular surgery

Mike	Kirby	University of Hertfordshire	Smart SAA- sex smart in a click	Abstract Background & Aims The uptake of health screenings remains low, especially in men (NHS Health Check Programme, 2017) and with stigmatised conditions. Technology is employed to increase uptake and improve patient empowerment. We aimed to create an App which acts as triage tool and allows (timely) detection of non-infectious sexual health problems and relating CVD, thereby providing an opportunity for intervention. Methods Diagnostic and management criteria for female sexual and erectile dysfunction, premature ejaculation and testosterone deficiency were obtained from international guidelines to create an App where users can access validated questionnaires leading to diagnostic and management advice. Results User data (N = 5704) from March 2016 to September 2018 suggested high levels of sexual dysfunction potentially amenable to treatment. Regarding the erectile dysfunction test (N= 1707, mean age 41y, SD = 16y) and the questionnaire assessing premature ejaculation (N= 902, mean age 32y, SD = 14y), 83% of participants portrayed some level of dysfunction. Regarding testosterone levels, 90 % of participants (N= 1448, mean age 36y, SD = 14y) produced an ADAM score that warranted further health care professional input. Only 38% of all participants (N= 1647, mean age 33y, SD = 15y) undertaking the female sexual dysfunction questionnaire reported normal function. Notably, 30% of respondents took the test on their female partner's behalf. Conclusion This is the first App supporting health screening for the above conditions. Benefits include easy access, cost free, a triage tool function, provision of a preliminary diagnosis and symptom support. Given that erectile dysfunction is a predictor of CVD and has recently been incorporated into cardiovascular risk calculators (QRisk 3; Hackett & Kirby, 2017), and testosterone deficiency is a marker of comorbidity and vascular disease, this App may aid diagnosis of (early) CVD, providing a window of opportunity for appropriate lifestyle changes/pharmacological management.

Hanna	Kirby	Leeds City Council	Developing and implementing an innovative community blood pressure programme in the workplace and community pharmacies in Leeds.	Abstract Introduction In Leeds, the percentage of hypertension detected and controlled to NICE recommendations is estimated to be around 42.5%, which is lower than regional and national averages. It is estimated that a 10mmHg reduction in blood pressure (BP) amongst the population with identified high BP could prevent 896 deaths annually in Leeds. Method Leeds Blood Pressure Wise (BPW) is a BHF-funded programme that aims to identify people in Leeds with hypertension via BP checks in pharmacies and the Leeds City Council (LCC) workforce. Staff from six community pharmacies and a 'BP Champion' working across various LCC workplace settings are undertaking BP monitoring with patients. The focus is on manual workers in lower paid jobs. Patients who have raised BP are provided with BP monitors and guidance to undertake home BP monitoring for 1 week. If the raised BP is confirmed following home-monitoring, the patient is signposted to their GP for clinical diagnosis and support with managing their condition. An innovative IT solution has been developed to enable results to be shared immediately with GPs to enable follow up. The programme commenced in Leeds in February 2018.Results & conclusion The presentation will cover learning from implementation, mobilisation of the service, initial results including numbers of people screened, hypertension detected, cases leading to clinical diagnosis. From a practical and delivery perspective we can share staff experience of being involved in the programme and feedback received from people using the service following publication of an interim evaluation of the programme.

Russell	Houghton	Conexus Healthcare	NHS Health Checks - Quality Improvement in Wakefield	Abstract Introduction/Background Conexus Healthcare was tasked to improve quality in the NHS Check Programme in Wakefield, with a targeted approach to prioritise patients with High BMI or Smokers. Conexus introduced a quality control system through access to GP data this has led to significant improvements in service quality, and potential for a positive impact on lifestyle choices. Method Conexus (Wakefield GP Confederation) has developed a suite of tools for Wakefield SystmOne practices to use, to record and deliver NHS Health Checks. This allows Nurses and HCAs delivering NHS Health Checks, to use a standardised SystmOne template, enabling a more streamlined service for patients. All practices are using the tools, which allows Conexus to collect high quality, in-depth, pseudonymised data. This data is processed by Conexus to create practice dashboards, which display 24 KPIs for the service, mapped against PHE Best Practice Guidance (2018). The view of the data at a practice level, allows each of the 27 SystmOne practices to, assess the quality of their NHS Health Checks against the best practice standards, on a quarterly basis. Results Comparing January-March 2017, with January-March 2018, the results show a great increase in the % of patients referred to lifestyle services or follow-ups in practice:26% increase in smokers who were offered referrals23% increase in referrals offered to weight management25% increase in follow-ups offered to patients with HbA1c above 4226% increase in follow-ups offered to patients with QRISK2 above 20%8% increase in follow-ups offered to patients with high BP

Hannah	Oatley	Oxford Academic Health Science Network	Practice-based, pharmacist-Led anticoagulation initiation service	Abstract Oxford AHSN together is working with Berkshire East CCG and Berkshire West CCGs to establish a new model of service delivery for the initiation and optimisation of anticoagulation therapy in primary care. Currently the burden of anticoagulation initiation sits predominantly with GPs who have varying levels of confidence and expertise in prescribing DOACs and who often have insufficient time to fully counsel patients on the risk/benefit profile of anticoagulants and the importance of medication adherence. Our innovative model harnesses the capacity and specialist expertise available within the pharmaceutical profession. The aim of the project is to reduce the number of AF related strokes in participating practices through increasing the number of patients with known AF who are prescribed appropriate anticoagulation therapy. The service is led by a Consultant Pharmacist. Patients eligible for the service include: Treatment naïve patients with poor TTR on warfarin Patients who have previously declined treatment but are now willing to discuss treatment Patients are given a 30-minute structured consultation including information about stroke risk and bleeding risks. Shared decision-making techniques are used to ensure that patients are offered the most appropriate anticoagulant for their clinical condition and preference. Patients initiated on warfarin are started on warfarin and referred to their usual anticoagulation clinic for on-going monitoring. Patients initiated on a DOAC have a telephone follow-up after 2-3 weeks where any side-effects, anxieties or concerns will be discussed. Results to date371 patients reviewed in first 5 months Average age 79Average stroke risk – 9% per annum121 anticoagulation naïve patients reviewed; 82 (67%) initiated on anticoagulation 250 warfarin patients reviewed – 131 (53%) transitioned to a DOAC Expected reduction in stroke incidence – 7Expected gross cost reduction to health economy - £171,000 External funding £99,000 received from the Pfizer-BMS alliance IGLC (independent grants for learning and change) process.

Hannah	Oatley	Oxford Academic Health Science Network	Buckinghamshire Excellence in AF	Abstract The Excellence in AF project was a collaborative piece of work between Buckinghamshire CCG, Oxford AHSN, Bayer, Buckinghamshire Healthcare Trust and Interface Clinical Services. The aim of the project was to identify patients who had a high stroke risk but were not receiving oral anticoagulation therapy, to invite them for counselling on stroke risk and to offer oral anticoagulation therapy where clinically appropriate. A secondary aim of the project was to assess the number of patients on warfarin with poor time in therapeutic range (TTR) or labile INR and the number of patients being prescribed an inappropriate dose of DOAC. There was a strong emphasis on ensuring that patients were offered all suitable options for anticoagulation and that all patients had the opportunity of a high-quality face-to-face consultation with counselling around risks, benefits and the importance of adherence to treatment. The project has delivered significant benefits including: 7700 patient records audited.4400 patients reviewed (face-to-face or desk-top)266 patients with AF anticoagulated (227 with a high stroke risk)91 fewer patients have poor TTR on warfarin.169 patients had their DOAC dose adjusted. Projected stroke incidence reduced by up to 17 strokes.3 lives potentially saved. Cost avoidance from AF related stroke could be up over £0.4m.Additionally, the practices that carried out quality improvement projects have made sustainable changes to their AF management pathways and have also gained valuable experience of quality improvement methodology which can be applied to future work programmes and disease areas. This project and the feedback received from those practices that engaged will be taken into account in the future commissioning of anticoagulation services and in developing ongoing initiatives to support practices. External funding The project was funded through a joint working agreement involving Oxford AHSN and Bayer plc (2017-2018)

Paul	Rowlands	Derbyshire Healthcare NHS FT, 42 St Mary's Gate	Spireites Active for Life: a collaborative programme for people with serious mental illness utilising the social capital of a local professional football club	Abstract Working with Chesterfield FC: a short history of 'Active Spireites' Summary 'Chesterfield Active Spireites' is a lifestyle programme developed between the local mental health team (Derbyshire Healthcare FT) and the charitable trust attached to the local professional football club, Chesterfield FC. We describe the development of this collaboration. We have developed this collaboration since 2013 using input from service users as an integral part of its development and now run a series of rolling programmes based at the football club aimed at improving fitness & mental wellbeing using the motivation of football as a therapeutic tool. Associated projects have included: • Healthy lifestyle course for people with SMI at the stadium (The Core Active Spireites Programme)A programme aimed at people with substance misuse problems Football coaching sessions & competitive football matches Walking for health project In reach work to the acute mental health unit Time to change match events at Chesterfield fc stadium Establishing links with national projects promoting football and mental health Presenting at national meetings outlining the programme and its impact Around 100 people a year access the programmes. Those completing show improvement in base-line measures recorded at the start of each cohort (BMI, BP, Well-being scores).The courses are well received by participants and people have been able to progress as Peer Supporters with several then progressing further to paid employment. The link with football is appealing to both patients and staff and extends the concept of healthcare outside of the clinic setting, making use of the social capital within the football club and enabling a marginalised group access to opportunities that have boosted their self-view and destigmatised their conditions. External funding OT time from Derbyshire Healthcare NHS FT, Trainer input from CFC Community Trust. Public Health Derbyshire support costs of room hire.

Cara	Afzal	Health Innovation Manchester	Systematic targeting those at highest risk in the population; seizing the devolution opportunity!	Abstract Problem & Purpose Greater Manchester Health and Social Care Partnership (GM HSCP) is committed to improving the health of its population, including reducing risk of premature Cardiovascular Disease (CVD) mortality across Greater Manchester (GM). Method To reduce wide variation and change outcomes for the GM population, a system approach to systematic targeting of those at highest risk in the population has been formulated to find “the missing millions”, reducing overall inequalities that persist. Alongside bespoke interventions. This work is using a collaborative, assets-based approach with key partners “Working as One” GM HSCP, GME Strategic Clinical Network (GME SCN), Health Innovation Manchester (HInM), PHE North, CCGs and NHS Rightcare. The approach taken varies by CCG, with a menu of support offers, underpinned by collaborative working. Status 3-examples will be presented; GM Health checks an opportunity to deliver Health Checks differently in GM, with face to face Health Checks targeted at those with greatest need. Provision of a universal digital Health Check to meet the needs of the rest of the population is being trialled. Manchester CCG Winning Hearts & Minds (WHM) Programme has a clear recognition that when it comes to improving heart and mental health outcomes in the city, what has been tried in the past has not worked, coupled with a programme of work targeting AF, Lipid Management and Hypertension, something different is being trialled Tameside & Glossop CCG A primary care pathway has been developed using national guidelines, and a project established to support the identification, management and treatment of AF, with a parallel piece of work to look at the identification of AF in the hospital setting. 38 of 39 Practices across T&G took part in a clinical review of recorded prevalence, management of ‘known not treated’ patients and ‘Time in Therapeutic Range’. Full audit details available.

Lynn	Simmonds	Hallcross Medical Services Ltd	Communicating CVD risk through the NHS Health Check	Abstract COMMUNICATING CVD RISK THROUGH THE NHS HEALTH CHECK Across Doncaster and Barnsley we have provided over 35,000 Health Checks through GP practices, pharmacies, businesses and community settings. We would like to share the patient leaflet we use to communicate their CVD risk to them. Aim There is a lot of detailed information, booklets and leaflets to support delivery of the NHS Health Check. As we go into a diverse number of settings we wanted to provide our patients with a personalised, relevant, 'one-stop-shop' leaflet to take away with them at the end of the Health Check with their results, help on beneficial changes to make and useful contacts. Methodology Over three years we have designed and redesigned this patient information results leaflet taking patient, operatives' and our contractors opinions into account in the design. Our leaflet works alongside the electronic template we also designed to ensure that all operatives deliver the NHS Health Check in a quality and consistent manner in line with National Guidance. Results Patients results are traffic lighted. Those with ticks in the red are advised to take their result leaflets to their GP Practice. This saves the Practice from reinvestigating. Those with amber results can go away, set their own goals and work on changes highlighted. They can make contact with other providers listed under our useful contacts. Changes to make sit across from the traffic lighted results page so the informatics are very clear. The leaflet (alongside the template on the computer) also acts like an algorithm for our operatives who go through the NHS Health Check in the order it is in and refer to the motivational changes as necessary. Conclusion All our patients take away their leaflet with a clear understanding of their Cardio-Vascular Risk and areas they need to work on.

Soili	Larkin	PHE West Midlands	From Consensus to Action – A West Midlands AF Pathway	Abstract Introduction Based on the available data sources Atrial Fibrillation (AF) presents a significant opportunity in the West Midlands for improving patient outcomes by reducing catastrophic strokes. Practice-level data highlights a significant variation in both detection and management rates. This variation is not acceptable and could increase existing health inequalities. Therefore improving patient outcomes in relation to AF is a key objective within the West Midlands CVD prevention programme. Aims It was agreed that the first phase of the work commencing in summer 2017 would focus on improving anticoagulation pathways with the aim of ensuring an equitable access to effective treatment to all those diagnosed by AF. Methods An AF consensus statement was agreed with NHS E Cardiovascular network, NHS Rightcare, PHE and WM AHSN with an agreement that NHS E would lead. AF working group was formed with the above organisations, but also included NICE, BHF, Stroke Association and a patient representative. First the group collated the existing AF pathways from across the region's CCGs and developed an action plan. It was agreed to develop a West Midlands-wide AF pathway to improve consistency and access across the region. Results A group of cardiologists and primary care representatives were called together to agree a first iteration of the pathway. This was then agreed at the West Midlands Cardiac and stroke Expert Advisory Groups (EAG). The pathway will be formally launched in Spring 2019, and educational up-skilling events are planned to further support the implementation of the pathway. Conclusion It is expected that an agreed pathway will support the on-going work by allowing a more equitable access to appropriate anti-coagulation treatment across West Midlands. This will also better enable discussion with CCGs and make it possible for the work to move onto the next phase which will focus on improving detection. External funding N/A

Faye	Edwards	AHSN Network	The Spread and Adoption of AF Detection - Lessons from the AHSNs	Abstract Across England Atrial Fibrillation is sub-optimally detected and managed, resulting in avoidable strokes. According to 2016/17 QOF, the GP registered population with undiagnosed AF in England was 422,600. Over recent years the development of different new and emerging technologies designed to assist in the identification and monitoring of AF has improved the sensitivity and specificity of pulse rhythm tests. However what is less well understood is how to effectively introduce this technology at scale, in healthcare settings that have traditionally been behind the 'adoption curve'. How do you design a system wide approach to the wide scale adoption of a digital technology that is pragmatic enough to be applicable anywhere in the healthcare system, whilst being rigorous enough to ensure data security, patient confidentiality and staff confidence? How do you assess patients and staff readiness to adopt digital innovation and tailor your approach accordingly? Since January 2018 the Academic Health science Networks have been working alongside local health care providers and community partners, to distribute and embed digital AF detection devices in a variety of clinical and community settings. 6000 digital AF detection devices have been distributed and a mixed methods evaluation is being undertaken to understand how this technology is being adopted and sustained, answering the following question: Can a system-wide procurement initiative improve the uptake of innovative technology and stimulate the market in primary and community settings, to better identify AF? In this session we will share challenges and successes of this project. Delve into the common barriers to adoption and offer our thoughts on how these could be overcome. We will share our recommendations for similar programmes, examples from around the country of where this technology has been successfully introduced and others where adoption was trickier and the reasons why, considering the benefits for staff and patients.

Kimberley	Lloyd	KCHFT	Engaging a floating workforce	Abstract INTRODUCTION: Kent Community Health NHS Foundation Trust (KCHFT) is commissioned by Kent County Council to deliver the NHS Health Check Programme across Kent. Whilst the majority of Health Checks are completed within Primary Care, our core team of Health Check Advisors also deliver at a variety of community venues, workplaces and events. The team continually explores additional ways of working to meet the needs of the eligible population, who are not able to and/or do not wish to engage with Primary care. AIM: To provide a Health Check/MOT opportunity for a workforce, who by nature of their occupation have limited access to this provision within Primary Care. METHODOLOGY: initial contact and liaison with P & O ferries to discuss the best way to offer Health Checks and MOT's to the workforce Consider logistics of KCHFT Health Check Advisors and working on board P & O ships and organise rota for ships and different 'watches' RESULTS: Health Checks/MOT's were offered for staff working on board P & O ferry crossings from Dover to Calais. Around (tbc) Health Checks were completed and (tbc)MOT's. Onward referrals to GP's and other organisations, including One You services were made as a result of the interventions. P & O decided to overhaul their canteen menus in line with a more 'healthy eating' approach. KCHFT One You services were invited to support staff further as a result of the Health Check project. CONCLUSION: This project highlighted the need for other ways of working with communities where extreme lifestyle patterns are evident due to working hours and environment. Some of those working alternate weeks on ship/on shore found it difficult to follow consistently healthy patterns of behaviour. Also, in order to successfully engage with some of our communities, we need to 'meet them where they are'.

Kate	Wilkinson	Middlesex university	Shape Up with spurs: A community based approach to physical activity and behavioural change	Abstract Introduction: Tottenham Hotspur Foundation has been running community based NHS health checks since 2014. Shape Up with Spurs (SUWS) is a funded project (Sport England) aiming to provide a physical activity and behavioural change intervention for residents of Haringey. From 2015, anyone meeting the criteria for SUWS was signposted to the programme involving one session per week (although the uptake was quite low); half of the time was spent doing physical activity and the other half doing workshops to facilitate behavioural change (including nutrition and lifestyle). The aim of this research was to evaluate the effect of the 10 week SUWS programme on CHD risk and physical activity, post intervention, at 6 and 12 months. Method: Pre-post measures recorded were physical activity (PA) (short IPAQ), weight, body mass index, waist to hip ratio, blood pressure but only PA at 6 and 12 months. 479 people were included in the analysis post intervention, and 218 at 12 months. Results: The results showed that all of the measured parameters were significantly improved post intervention apart from waist to hip ratio. Activity levels increased in both genders, however the time spent doing vigorous activity was still less than the target of 150 minutes per week (45 minutes).Conclusions: Although PA changes are positive, most cardiorespiratory improvements occur during vigorous activity and could also offer an explanation for the lack of change in WHR. Signposting in health checks to community programmes can help reduce the risk factors associated with CHD but further investigation is needed into the optimum time and frequency for an intervention and subsequent exit routes to maintain the lifestyle changes. More strategies are also needed to increase the uptake of those signposted to interventions or to investigate the reasons why they did not access the opportunity. External funding Part funded by Sport England

Chetan	Trivedy	Boundaries For Life	Promoting Cardiovascular Health Through Cricket. The Boundaries For Life Model	Abstract Promoting better health through cricket. The Boundaries for Life Model. Background: Cricket is the third most popular sport in the UK with an estimated following in 19% of the population. Given the diverse following of cricket, including a large fanbase from South Asian countries prone to higher rates of CVD, cricket offers a unique opportunity for health interventions. Method: The health checks included an assessment of the user's heart age using software which was provided by Health Diagnostics. Checks of blood pressure, random blood sugar/ Hb1ac, body mass index (BMI), total random cholesterol (TC), HDL and TC/HDL ratio were performed using point of care equipment. A brief survey of life style as well any medical risk factors was also conducted. Each user consented for the checks and for their data to be analysed anonymously. Results Total Participants247TC/HDL ≥4 38%Total venues 10 HDL <121.6%Ethnicity White (75%)Asian (17%)Other (8%)Smokers 29%GenderMale (71%)Female (29%)Audit Score ≥5 (high risk drinking)21%UsersSpectators (66%)Staff (34%)Family history CVD (28.8%)Diabetes (28.8%)High risk BMI33% Avg Q risk8.3%High risk waist 44% Avg Heart age Calculated (54)Perceived by user (50)Actual (50)High risk BP Systolic >140 (24%)Diastolic >90 (20%)CVD risk High (11%)Moderate (21%)Low (69%)Diabetes UK risk score >1645% User feedback Recommend service (99.5%) TC ≥ 538.8%Rating of service Excellent (77.2%) Table 1: An overview of health checks for the 2018 cricket season. Conclusion: The results demonstrate significant CVD risk factors amongst the users. We propose a unique collaborative approach involving cricket grounds and health care providers to look at how to harness the power of sport to improve the health of the nation. External funding Sponsorship for this work was provided by Simplyhealth

Karen	Davies	Sussex Community Trust	The evaluation of an online training package – Health check mentor	Abstract Introduction The skills, competency and confidence of the health check provider are pivotal to delivery of a high-quality Health Check. Commissioners have been advised to consider workforce training as described in the NHS Health Check competence framework 2015. Despite this, results (PHE Survey 2018) regarding the competency framework identified that only 66% of responders commissioned training for providers and that lack of staff time and capacity in attending (45%) was cited as the main challenge and barrier to training. Additional training challenges / barriers for Health Care staff are Keeping up with staff turnover in provider sites Addressing the need and Low Health literacy within junior health care assistant staff (GP practice and pharmacy)Lack of clinical supervision/ quality assurance culture in provider sites Aim Evaluation of user feedback of Health Check Mentor completed 2017- 2018. Methodology All users of Health Check mentor in the above time period were invited to complete a feedback questionnaire following completion of the online modules and assessment. Results Feedback was collated on the following areas: Ease of use Content Structure and sequencing Feedback on the assessment Opportunity to provide Qualitative feedback was also included "That it was online, could do at my own pace, user friendly and very informative" Shropshire user 6.8.18"Information regarding advise to clients interesting and I now feel I can use this when seeing clients in the future" Shropshire user 1.8.18"Good refresher" West Sussex "Very easy to use" Kingston user 8.7.18"Helped to share so we are all working to same spec, good ideas for relaying important information in a positive way" Gloucestershire user 3.7.18 Conclusions Health Check mentor has been positively evaluated by users as being easy and relevant. Qualitative feedback has additionally identified how the modules can counter some of the current challenges for providers.

Sanjay	Tanday	Public Health England	PHE's Health Matters - a digital product for health professionals	Abstract INTRODUCTION Health Matters is a monthly digital resource that brings together the latest data and evidence on the most effective interventions to address public health challenges. It is aimed at those working in local authorities, NHS services and the third sector. Health Matters was created following stakeholder insight which highlighted the need for targeted and usable information from PHE to support the commissioning of effective evidence-based public health interventions at a local level. METHODS Health Matter takes a multi-channel content approach. Our ethos is to make all of our content shareable and snackable so professionals can download it for use at a local level. Each edition includes: infographics case studies blogs videos slide sets email bulletin PHE has published a number of editions that relate to cardiovascular disease (CVD) prevention which include: Combating high blood pressure Using the NHS Health Check to prevent CVD Preventing Type 2 diabetes Stopping smoking: what works RESULTS To date there have been 23 editions of HM published. As of 1st September 2018 there has been: 404,062 views of the core content on gov.uk 200,000 views of the accompanying blogs19, 000 clicks on the downloadable infographics13, 500 view of the videos over 37,000 subscribers to the Health Matters bulletin Health Matters content has been used in GP surgeries, on local authority and CCG websites, in presentations and at conferences. User survey results 84% of people say Health Matters is useful or very useful Over a third of people (34%) have used Health Matters content to help inform decision making CONCLUSIONS Health Matters is an effective communication product that has grown considerably year on year. It is valued by health professionals and commissioners and the content is being used to provide the evidence-base for effective commissioning and delivery of public health interventions at a local level.

Humphries	Steve	University College London	Cost-utility analysis of searching primary care and secondary care databases and cascade testing to identify and diagnose familial hypercholesterolemia	Abstract Methods: Nine strategies were compared, all using cascade testing in combination with different index case approaches (primary care identification, secondary care identification, and clinical assessment using the Simon Broome (SB) or Dutch Lipid Clinic Network (DLCN) criteria). A decision analytic model was developed consisting of a decision tree and Markov state-transition models, informed by systematic literature reviews, meta-analysis of diagnostic test accuracy, and expert advice provided by a NICE Guideline Committee. Results: The model confirmed that cascade testing is a cost-effective strategy. The addition of primary care case identification by database search for patients with recorded cholesterol values above the 99.5th percentile of the population followed by clinical assessment using the DLCN criteria had an ICER of £1,572 compared with cascade testing alone. Secondary care identification with either the SB or DLCN criteria, alone or combined with primary care identification, was not cost effective. Conclusions: Searching primary care databases for people at high risk of FH followed by cascade testing is likely to be cost-effective. The combined possible and definite SB criteria is slightly more cost effective than the standard DLCN criteria, however, the differences in total costs and QALYs between the two strategies are small. These data should encourage GPs to use the approach to identify new possible FH index cases for referral to qualified lipid clinics for DNA testing and cascade testing External funding SEH was a British Heart Foundation (BHF) Professor funded by a BHF grant (BHF PG08/008) and by the NIHR UCLH BRC. This work was conducted at the National Institute of Health and Care Excellence (NICE). RM, SB and HM are employees of NICE. PC was an employee of NICE at the time this work was conducted.

Humphries	Steve	University College London	HOW CAN WE FIND ALL THE UK PATIENTS WITH FAMILIAL HYPERCHOLESTEROLAEMIA (FH)?	Abstract Background: Carriers of an FH-causing mutation are found in ~1/270 of UK subjects, meaning ~200,000 people are at monogenic risk of early CHD, unless they can be identified and offered lifestyle and intensive statin treatment. DNA-based Cascade testing (CT) of the relatives of an index case with FH is highly cost effective, but this approach is dependent on a supply of index cases (eg by electronic note searching by GPs for possible FH index cases using a total cholesterol cut-off). Here we examine whether universal screening (US) at age 1-2 years would be a cost-effective adjunct to CT in the UK. Methods: Different cholesterol and/or mutation-based US ± reverse cascade testing (RCT) alternatives were compared with no US in an incremental analysis with a UK NHS perspective. A decision model was used to estimate costs and outcomes for cohorts exposed to the US component of each strategy. RCT case ascertainment was modelled using recent UK data, and probabilistic Markov models estimated lifetime costs and health outcomes for the cohorts screened under each alternative. Results: Cholesterol screening at 1-2 years followed by diagnostic genetic testing and then RCT was the most cost-effective alternative modelled, with an ICER versus no screening of £12,480/QALY (96.8% probability of cost-effectiveness at £20K/QALY), which was robust to deterministic sensitivity analysis. Threshold analysis suggested US would be cost effective until undiagnosed prevalence reached 48%.Conclusion: To find all the predicted FH patients in the UK, CT using several different approaches to identify index cases will be needed, including GP note searching and US. All of these approaches are under the £20K UK conventional willingness-to-pay threshold. If all these approaches are implemented it should be possible to find at least 50% of the predicted FH patients within 5-10yrs. External funding SEH acknowledges support from the British Heart Foundation (PG08/008)

Leah	de Souza-Thomas	Public Health England	A co-ordinated, multi-agency approach to CVD prevention in London	Abstract A co-ordinated, multi-agency approach to CVD prevention in London Introduction The London CVD Prevention Partnership[1] (CVDPP) has been successfully established with the aim of reducing CVD related events and tackling the issue of London CCGs performing below the national average for detection and treatment of CVD risk factors. Aim To develop a London vision, with local disease specific ambitions, to improve the detection, treatment and long term management of people with Atrial Fibrillation (AF), Hypertension (HTN) and Familial Hypercholesterolemia (FH). The project aim was to build healthier lives in London, by reducing CVD related events, targeting inequalities, empowering Londoners to take control of their health and preventing at least 400 strokes and heart attacks in London by 2023.MethodologyThe CVDPP held London events with providers and commissioners to develop the London vision. QOF data was used to support identification of local opportunities and ambitions to achieve sustainable transformation in clinical services. The CVDPP offered tailored, co-ordinated support, with agreed timelines for delivery to realise large-scale system level change. The RACI model [2] was employed to provide clarity around the responsibilities of each organisation. Steering groups for each of the high risk conditions were established to drive delivery of effective interventions. Results Providers, commissioners and the CVDPP co-produced a single vision for CVD prevention in London. The delivery of this vision was supported by clear local ambitions. The co-ordination of support offered by CVDPP maximised resource utilisation, reduced duplication and eliminated multiple approaches. Conclusion Working collaboratively and finding new ways of working across differing organisations with competing priorities has been complex at times. However, partnership working is essential to achieve CVD prevention at scale and pace. [1] The CVD Prevention Partnership includes representatives from the London Cardiac and Stroke Clinical Network, Public Health England, British Heart Foundation, Local Authority Associate Directors of Public Health, Greater London Authority and NHS RightCare.[2] https://www.projectsmart.co.uk/raci-matrix.php

Nina	Gavin	ICE Creates	Understanding what citizens do next after an NHS Health Check	Abstract Hull City Council currently delivers the NHS Health Check programme in workplaces and in local communities to support residents to prevent their risk of CVD. Research was conducted to understand individuals' experiences of a Health Check and to understand what citizens do next. A mixed method approach was utilised to maximise opportunities for participation. 26 individuals who received a Health Check in the workplace completed an online survey and 3 individuals took part in a follow-up telephone interview. In addition, 20 in-depth interviews were conducted in two community settings where Health Checks are delivered to hard-to-reach groups, including individuals on low incomes and those with refugee or migrant status. The research findings suggest that individuals attended a Health Check because they wanted to know more about their current health and it was convenient and free to attend. During the Health Check, it was reported that the receival of a heart age prompted individuals to think about what they could do to sustain or reduce their heart age and increased intention change. By contrast, receiving a risk score did not increase motivation to change, as many individuals misinterpreted or were unable to recall their score. Following the Health Check, 77% and 70% of participants who received a Health Check in the workplace and community intended and tried to make a change to their lifestyle behaviours, including eating healthier, increasing physical activity levels and reducing alcohol consumption. The findings also suggest that individuals would need further support to maintain changes. This research suggests that the NHS Health Check programme, including the use of the heart age tool, increases individuals' motivation to change, which is likely to result in sustained behaviour changes that can prevent individuals' future risk of CVD, if further support is provided.

Alan	Carter	The Land Trust	Health for Life at Countess of Chester Country Park	Abstract Introduction A two year Health for Life activity programme was run on the Land Trust site at Countess of Chester Country Park. The programme saw 700 different opportunities for practical activity organised at the park for the public and NHS staff from the nearby hospital. Aim The aim of the project was to empower and encourage increased practical (physical) activity outdoors, typically in groups, improving participant's physical and mental well-being recognised as CVD risk markers, to reduce their overall CVD risk. Methodology Active promotion of the opportunities and NHS staff encouragement were used to engage participants with the programme. The Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) was used to monitor mental well-being over time. The International Physical Activity Questionnaire (IPAQ) was used to monitor changes to participant's physical activity levels. Results The results demonstrated participants reporting spending more time being active, feeling healthier and happier as a result. All three categories of physical activity (vigorouos, moderate and walking) saw increases over the course of the programme with vigorous activity presenting the biggest increase with the average engagement rising from 1.3 days to 1.9 days a week. The WEMWBS results across all activities at Countess of Chester showed an improvement of 4.7 points from the week 1 (48.9) to the end of the 8-12 week programme (53.6). Between three and eight points is considered meaningful by WEMWBS guidelines. Conclusion The project successfully demonstrated the positive impact that outdoor practical based physical activity can make on people's activity levels and mental well-being, both indicators of CVD risk. Using the natural capital around hospitals to support increased practical physical activity should be considered on a wider scale. External funding The £70,000 programme was funded by Cheshire Wirral Partnership NHS Trust, The Big Lottery, The Mersey Forest and Cheshire West and Chester Council.

Victoria	Riley	Staffordshire University	CVD Risk Communication Training and Resource Pack in NHS Health Checks	Abstract Introduction: Within NHS Health Check (NHSHC), cardiovascular disease (CVD) risk is usually presented to patients as a 10-year percentage risk score. Practitioners and patients may not fully understand percentage CVD risk, which could reduce the effectiveness of risk communication. 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 NHSHC and there is no practitioner training for these tools. Aim: To develop, pilot and evaluate innovative training to improve practitioners' confidence and understanding when communicating CVD risk to patients. Methodology: The research was separated into four parts: Stage 1 - assessment of needs; Stage 2 – development of training programme; Stage 3 - pilot training course; Stage 4 – training evaluation. In total, 31 interviews were conducted in stage one, 34 health professionals attended pilot training (stage 3) and 13 follow-up interviews were conducted for training evaluation (stage 4). Questionnaires were administered pre- and post-training to assess changes in practitioner confidence, understanding, and perceived patient understanding and then compared to controls (no training received). Quantitative and qualitative data were analysed using ANCOVAs/ANCOHET and thematic analysis respectively. Results: Practitioner understanding (p=.030) and perceived patient understanding (p=.007) improved significantly for those already delivering NHSHC in the training group compared with controls. Practitioner confidence significantly improved in those who attended the training compared to controls (p=.001), regardless of whether they were delivering NHSHC at the time of attendance. Follow-up interviews supported these findings. Consequently, a free resource pack was developed for practitioners based on the training content. Conclusion: Risk communication training can improve practitioners' confidence and understanding when delivering NHSHC. Given the limited understanding of risk, our free resource should be disseminated to practitioners delivering NHSHC across England and considered within Health Check competencies. External funding Not Applicable.

Victoria	Riley	Staffordshire University	Learning from Patient Experience in NHS Health Checks	Abstract Introduction: There is increasing evidence to suggest that most patients who attend an NHS Health Check (NHSHC) have a positive experience. But there is contrasting evidence that patients often lack understanding and awareness of the purpose of the programme, and can leave with unmet expectations and unanswered questions. Therefore, it is important to learn from those who attend an NHSHC, in order to increase uptake and improve the quality of the service. Aim: To explore patients' experiences of NHSHC, from method of invitation to the consultation (including discussion of CVD risk) and the impact on their future behaviour intentions. Methodology: Semi-structured interviews were conducted with patients who attended an NHSHC. Interviews were conducted face-to-face or via telephone before being transcribed and analysed using Thematic Analysis. Results: Thirty-five semi-structured interviews were conducted with patients across five general practices in Stoke-on-Trent and Staffordshire. Six themes were identified. Five related to different time points in the patient NHS Health Check journey: pre-Health Check themes - 'invitation'; during the Health Check themes - 'NHS Health Check experience' and 'risk score'; post-Health Check themes - 'reflections on NHSHC'. 'Knowledge of the programme' ran throughout the patient experience. Qualitative analysis showed that the majority of patients were positive about their experience and how they were invited. Barriers to attending included multiple trips to the practice, not feeling unwell, identification of ill health, the emotional impact of attending a Health Check, busy schedules and work commitments. Patients did not understand the percentage risk score or perceived that others would not. Heart Age was considered to be more impactful, understandable and relatable, and patients preferred this concept over percentage risk. Conclusion: Patient understanding of the purpose of NHSHC and CVD risk remains an area that requires attention and should be investigated further to improve programme provision. External funding Not Applicable.

Beth	Mackay	NHS England	Atrial Fibrillation (AF) patient optimisation demonstrator site programme	Abstract Cardiovascular disease (CVD) accounts for more than a quarter of deaths in England and is the largest cause of premature mortality in deprived areas, with mortality from CVD up to three times higher in the least deprived decile compared to the most affluent decile. The cost to the NHS for a patient in the first year following a stroke is around £12,228, rising to £22,439 in the first year, and £46,039 over five years if social care costs are included. In contrast, the cost of treating a patient with Atrial Fibrillation (AF) with anticoagulants is on average under £500 per patient per year. Patients with AF are more likely to suffer a stroke, and are more likely to be disabled following a stroke than patients without AF. Anticoagulation for patients with AF reduces stroke risk by two thirds; however, half of all people with known AF who suffer a stroke have not received anticoagulants. Over 18 months, NHS England will fund a project across 20 CCGs to provide clinical pharmacist capacity to case-find and treat over 20,000 known untreated high-risk AF patients from GP records. This work could prevent over 800 strokes and approximately 200 deaths within this period. Demonstrator sites were selected as those with low attainment of AF treatment and highest levels of deprivation Implementation of the programme will begin in late 2018, and it is anticipated that by February 2019 we will have collected and analysed data on patients seen using the virtual clinic model, including: age, gender, whether they are housebound, why they hadn't previously received anticoagulation, outcome of the virtual clinic, and generalised data on deprivation levels. Qualitative and quantitative evidence will be collected to demonstrate effectiveness as the project progresses, to make the case for supporting wider implementation in CCGs across England in future.

Jo	Wall	PHE South East	Using data to galvanise action on cardiovascular disease prevention in the south east	Abstract Introduction: A central aim of the Cardiovascular Disease (CVD) Prevention Programme is the mobilisation and engagement of local healthcare systems to come together to improve secondary prevention of Atrial Fibrillation (AF), hypertension, and raised cholesterol. Local level data is a compelling catalyst to initiate and support conversations and agreements about priorities based on population need. Aim: Local data and intelligence was used with the aim of securing commitment and galvanising action on the CVD Prevention Programme from the six Sustainability and Transformation Partnerships (STPs) in Public Health England South East (PHE SE), based on the high-risk conditions of high blood pressure and AF. Methodology :The PHE SE data pack was led by the Local Knowledge and Intelligence Service (LKIS) in partnership with Centre colleagues and provided data to make the case for CVD prevention at Clinical Commissioning Group (CCG) and STP level demonstrating variations in: Risk factors NHS Health Check High blood pressure and AF diagnosis and treatment Estimates for strokes prevented and cost savings for AF treated to target Effective CVD data pack dissemination and local socialisation was an important aspect of the PHE SE approach, facilitated by senior level dissemination to STP and Local Authority leaders. Results: All STPs in the SE engaged with the data packs and associated actions discussed at a senior level triggering invitations to help shape STP CVD priorities. Where CVD prevention was not previously prioritised, the data packs proved instrumental making this a priority. The SE data packs informed the development of national data packs with the potential for much wider influence. Conclusion: The PHE SE CVD data packs successfully demonstrate both the importance of well-presented compelling data and local socialisation to influence prioritisation and galvanise action in public health.

Jodi	Brown	PHE South East	Using Plan-Do-Study-Act cycles to increase statin prescription for primary and secondary cardiovascular disease prevention in Hampshire and Isle of Wight	Abstract Introduction: One in four adults have an increased risk of CVD equating to a QRISK2>20%. It is estimated only 35% of QRISK2>20% and only 13.8% of QRISK2>10% take statins as recommended by NICE (Finnikin et al., 2017). Public Health England South East (PHE SE) is supporting Hampshire and Isle of Wight Sustainability and Transformation Partnership (HIOW STP) to address low statin prescription. Most PHE CVD prevention is currently targeting hypertension or AF. Aim: To increase statin prescriptions for the primary and secondary prevention of CVD in those with a high QRISK or with high total cholesterol. Methodology: PHE convened a local CVD prevention steering group of key stakeholders to drive the programme, including Local Authority, NHS, RightCare, British Heart Foundation and NICE. HIOW has strong local leadership and the flagship Wessex Familial Hypercholesterolaemia service. The priority was to address the lack of current baseline data for high cholesterol. The first Plan-Do-Study-Act (PDSA) cycle is to calculate the percentage of 40-74yr olds with a QRISK2>20% without a statin prescription. Future PDSA cycles aim to implement an initial target of 50% statin prescription in QRISK2>20%; increase statin prescription in patients with existing CVD; and increase referrals into the Wessex FH service. Pilots in two GP practice clusters will identify those at the highest risk of CVD not currently on statins. Practice workload will be minimised by using prescribing pharmacists, remote prescribing and an adapted Bradford Healthy Hearts approach. A PDSA approach will enable innovations to be tested and rapid service improvement. Local leadership has been developed and this is now a STP priority. Conclusion: Work would not have started without PHE. It is early days but there is good momentum. It is a challenge to resource the prescribing pharmacists and get GPs engaged. However enthusiastic local leadership increase chances of success.

Aimee	Stimpson	Public Health England	Putting people at the heart of cardiovascular disease prevention planning: Our learning from focus groups in the South of England	Abstract Introduction Preventing cardiovascular disease (CVD) is a system-wide priority and placing people at the heart of the planning is essential The PHE South CVD Board commissioned consumer research to capture the insight to support its co-ordinated programme to improve CVD prevention. The aim was to explore awareness of CVD and its risk factors amongst the target audience and to understand where they would seek to receive information about CVD conditions and how to prevent them. Additionally we wanted to understand how attitudes and health literacy impact on beliefs around who is responsible for health: the NHS or the individual. Methodology Four focus groups were held across the South of England in rural and urban areas. Groups included people who had experienced CVD health conditions and those who had not. The target age of participants was 40-55 and 55-74 years. Key findings: General attitudes to health and drivers for thinking about own health, Health is valued as an enabler to enjoying other positive aspects of life Widespread expectation that heath will deteriorate with age Lifestyle risk factors are considered to be a personal responsibility not a medical issue Luck, genetics and age are also seen to be significant risk factors Stress is perceived as a major factor Understanding terminology, risks factors and specific conditions, and attitudes to the NHS health check The phrase CVD is not consumer friendly - heart attack, stroke and diabetes resonate There was unprompted awareness of the Act F.A.S.T campaign and low understanding of atrial fibrillation There are high levels of confidence that CVD conditions can be treated There is widespread concern about the current burden on NHS There are high levels of trust in pharmacists, and low levels of awareness of the NHS Health Check services

Aimee	Stimpson	Public Health England	Putting people at the heart of cardiovascular disease prevention planning: Our learning from focus groups in the South of England	Abstract Introduction Preventing cardiovascular disease (CVD) is a system-wide priority and placing people at the heart of the planning is essential The PHE South CVD Board commissioned consumer research to capture the insight to support its co-ordinated programme to improve CVD prevention. The aim was to explore awareness of CVD and its risk factors amongst the target audience and to understand where they would seek to receive information about CVD conditions and how to prevent them. Additionally we wanted to understand how attitudes and health literacy impact on beliefs around who is responsible for health: the NHS or the individual. Methodology Four focus groups were held across the South of England in rural and urban areas. Groups included people who had experienced CVD health conditions and those who had not. The target age of participants was 40-55 and 55-74 years. Key findings: General attitudes to health and drivers for thinking about own health, Health is valued as an enabler to enjoying other positive aspects of life Widespread expectation that heath will deteriorate with age Lifestyle risk factors are considered to be a personal responsibility not a medical issue Luck, genetics and age are also seen to be significant risk factors Stress is perceived as a major factor Understanding terminology, risks factors and specific conditions, and attitudes to health checks The phrase CVD is not consumer friendly - heart attack, stroke and diabetes resonate There was unprompted awareness of the Act F.A.S.T campaign and low understanding of atrial fibrillation There are high levels of confidence that CVD conditions can be treated There is widespread concern about the current burden on NHS There are high levels of trust in pharmacists, and low levels of awareness of the NHS Health Check services

Aimee	Stimpson	Public Health England	Putting people at the heart of cardiovascular disease prevention planning: Our learning from focus groups in the South of England	Abstract Introduction Preventing cardiovascular disease (CVD) is a system-wide priority and placing people at the heart of the planning is essential The PHE South CVD Board commissioned consumer research to capture the insight to support its co-ordinated programme to improve CVD prevention. The aim was to explore awareness of CVD and its risk factors amongst the target audience and to understand where they would seek to receive information about CVD conditions and how to prevent them. Additionally we wanted to understand how attitudes and health literacy impact on beliefs around who is responsible for health: the NHS or the individual. Methodology Four focus groups were held across the South of England in rural and urban areas. Groups included people who had experienced CVD health conditions and those who had not. The target age of participants was 40-55 and 55-74 years. Key findings: General attitudes to health and drivers for thinking about own health, Health is valued as an enabler to enjoying other positive aspects of life Widespread expectation that heath will deteriorate with age Lifestyle risk factors are considered to be a personal responsibility not a medical issue Luck, genetics and age are also seen to be significant risk factors Stress is perceived as a major factor Understanding terminology, risks factors and specific conditions, and attitudes to health checks The phrase CVD is not consumer friendly - heart attack, stroke and diabetes resonate There was unprompted awareness of the Act F.A.S.T campaign and low understanding of atrial fibrillation There are high levels of confidence that CVD conditions can be treated There is widespread concern about the current burden on NHS There are high levels of trust in pharmacists, and low levels of awareness of the NHS Health Check services

Peter	Locke	Salford City Council	'Health Checks on Tour' – Engaging with Dog Owners to Increase the Uptake of NHS Health Checks in Community Settings	Abstract Background: As development of a partnership between Salford Health Improvement Service (HIS), People's Dispensary for Sick Animals (PDSA) and Salford City Council Dog Wardens, the concept of using people's interest in their dog's wellbeing to engage with them regarding their own health was further explored. Specifically, to encourage dog owners to take up the opportunity of an NHS Health Check (NHSHC) whilst their dog was having a 'pet health check'. The campaign was to be named 'Heath Checks on Tour'Setting: Five parks in Salford, over one week in July 2018.Methods: A marketing campaign and networking with key stakeholders promoted the campaign. Booking was available, with 'walk ups' welcomed, with HIS and PDSA each having health check vehicles on-site. On completion of the NHSHC, people were asked 'Would you have accessed the NHSHC at your doctors?' and follow up interviews were undertaken eight weeks later Results: 104 NHSHCs were undertaken (all HIS had no previous engagement with). 48 signposted back to their GP surgery for clinical follow up18 referred to community lifestyle interventions.78% stated that they would not have accessed the NHSHC at their GP surgery.77 follow up interviews 32 made positive lifestyle changes13 accessed community lifestyle interventions. 40 of those requiring clinical follow-up were interviewed, 26 were under investigation at their GPs. Conclusion: The innovative approach to engage with and present an opportunity of having an NHSHC to people new to HIS (the majority of which stated they would not have accessed the NHSHC at their GPs), was a success. This was only possible through accessing networks via the dog wardens and PDSA to promote the campaign and the excellent engagement tool of PDSA pet health checks, in order to deliver a large number of NHSHCs to dog owners.

Nat	Wright	Spectrum Community Health CIC	The prevalence and management of cardiovascular risk factors amongst prison populations	Abstract Cardiovascular disease is a leading cause of death globally and has become a major public health issue, with those most vulnerable from socially excluded sectors of society, such as prisoners, most at risk. Recent research has also highlighted that the key modifiable risk factors for cardiovascular disease (smoking, poor diet and lack of physical activity) are highly prevalent amongst prisoner populations internationally, including the United Kingdom (UK) prisoner population. Imprisonment provides a unique opportunity to address these high-risk behaviours that are linked to poor health. Previous research conducted in the United States (US) and the UK has indicated that prison-based peer-interventions have shown promise in reducing risk-behaviours linked to poor health in prisoners, particularly in the area of HIV risk-factor reduction. Based upon this promising evidence base for prison-based peer-interventions in modifying risky health behaviours, the presenters undertook a research project to explore the potential of a peer-led intervention to modify smoking, diet and physical activity amongst prisoners in the UK. Initially, a prevalence survey was undertaken and data cross-checked with clinical records to quantify the burden of disease. Focus groups with prisoners and semi-structured interviews with members of staff were then conducted. This data informed the development of a peer-led intervention to modify smoking, diet and physical activity amongst prisoners. The peer-led intervention was then implemented as a pilot RCT. The results will be presented to participants attending the workshop. The presenters will also facilitate open discussion amongst the workshop participants around the challenges and barriers towards modifying smoking, diet and physical activity in prisons, drawing upon their own experience of trying to modify these behaviours in prison through utilisation of a peer-led intervention.

Kevin	Auton	Aseptika Ltd	Active+ combines community-based rehabilitation and digital self-care to increase Patient Activation by 15%	Abstract Introduction Active+ is an effective, evidence-based exercise class, supported with self-care technology, education and training, in a peer-to peer supported programme developed in Huntingdonshire to support cardiac rehabilitation (CR). Evidence shows that exercise can improve or maintain health for all forms of long-term conditions (NHS website). For those diagnosed with CVD, once acute treatment has ceased, participants have limited support until they become acutely unwell or frail, at increased cost to health and social care, and are at increased risk of requiring earlier use of adult social care services. (Sacha J, Sacha M, Soboń J, Borysiuk Z, Feusette P. Is It Time to Begin a Public Campaign Concerning Frailty and Pre-frailty? A Review Article. Frontiers in Physiology. 2017;8:484. doi:10.3389/fphys.2017.00484; McMillan Exercise Evidence Review: https://www.macmillan.org.uk/documents/aboutus/commissioners/physicalactivityevidencereview.pdf) Methods Patients completing phase 3 CR at Papworth Hospital were referred to the phase 4 CR Active+ programme. Patients were supported by digital technology to monitor their physiological signs. Mental health and medication adherence using the Activ8rlives4 App and Bluetooth connecting devices (www.activ8rlives.com). Patients complete the Patient Activation Measure (PAM), once at baseline and again when they had completed the 8 week programme. Results 23 patients were enrolled into the Active+ programme. From this cohort 20 participants who completed the course (10 male, 10 female, average age 69). Overall their PAM score increased by 9.5 points, equating to a 19% reduction in hospitalisation. All other measures also showed improvements. Qualitative feedback shows increased confidence to exercise at home and to self-manage their condition. Conclusions These early results show that supporting phase 4 CR with the Active+ programme has a positive effect on patient's ability to self-manage, and a reduction in the use of NHS services. The programme is now looking to try using the technology in phase 3 classes and to expand to a RCT.

Natalie	Gold	Public Health England	RCT comparing the effect of a behavioural risk-framed leaflet, a behavioural gain-framed leaflet, and the national leaflet on uptake of NHS Health Checks	Abstract Background The NHS Health Check (NHS HC) is a cardiovascular disease risk assessment, which aims to lower the incidence of cardiovascular events. However, national uptake is lower than aspired to. This randomised controlled trial compares the impact of different leaflets on uptake of the NHS HC in Lewisham and in NE Lincolnshire. Methods Patients were randomised to receive one of three leaflets alongside their usual letter invitations: (1) a 2-sided behaviourally informed risk-framed leaflet, (2) a 2-sided behaviourally informed game-framed leaflet, or (3) the standard 4-sided national leaflet. The leaflets were sent out centrally (by QMS in Lewisham and by Kelly Royston in Lincolnshire) on behalf of 39 practices in Lewisham and 17 practices in NE Lincolnshire. The leaflets were sent out for six months, from April-August 2018 inclusive. Results The outcome measure is attendance at NHS Health Checks as a proportion of patients invited. Uptake data is being provided by QMS on a monthly basis from April–November 2018 (Lewisham) and a quarterly basis by Kelly Royston in July and in October 2018 (NE Lincolnshire). Analysis will have been completed by the time of the CVD conference.
Harald	Braun	i5 Health	Prediction of undiagnosed Atrial Fibrillation (AF) using Neural Networks and Deep Learning	Abstract Background. Patients with undiagnosed cardiac arrhythmia problems such as Atrial Fibrillation (AF) can develop further complications, e.g. heart failure or stroke . Detection of such 'silent' AF prior to the first cerebrovascular event ('primary prevention') would be valuable for instituting adequate therapy, such as anticoagulation, and avoiding emergency admissions (1). Screening for AF could be of value in high-risk populations that can be identified using Artificial Intelligence (AI) techniques such as Principal Component Analysis (PCA) and Neural Networks (NN) (2). Objective. Identification of high risk patients without a known history of AF based on their past medical history. Method. NN-based scoring of AF risk forecast using PCA - using two steps. First, feature selection where medical records are analysed of patients with AF to identify the most relevant features, and secondly, feature training where Neural Networks learn about the existence of correlations between populations with and without diagnosis of AF. A data set of 32,514 patients, of which 17,924 have a diagnosis of AF and 14,590 have not, was used for PCA and training of various Backpropagation Neural Networks with different topologies. Result. The best performing Neural Networks had 344 inputs, including 265 diagnosis, 68 treatment and 11 age band codes, and were able to re-identify 90.1% of patients with AF and 12.9% of an unknown population that should be screened for undiagnosed AF. Using NN for preliminary diagnosis of AF can lead to much improved AF screening outcomes up from 1.4% (3) using a random population to 12% using targeted screening. [A1]Suggest a more "punchy start "People who have Atrial Fibrillation (AF) may be asymptomatic; their first presentation may be with acute heart failure or a stroke. Detection of such "silent" AF prior …."

Fiona	Needham	Leeds Beckett University	The effectiveness of an outreach approach to NHS health checks in identifying people at high risk of CVD in the 20-40% lSOAs in Suffolk	Abstract To increase the numbers of outreach health checks performed on residents from 20-40% LSOAs in Suffolk, a pop-up shop was opened in October 2017, for a seven-week period. NHS health checks were performed daily and during shopping centre opening hours. This location was specifically chosen for its footfall and potential demographic of the population walking through. Results 475 health checks were performed with 53% of clients living in the 20% and 20- 40% LSOAs of Ipswich . The Ethnic and gender split per LSOA was similar, with more women having a health check across all LSOAs. Analysis of the data from this population compared data for LSOA 20-40% with the most affluent 80% LSOA The number of clients with a Qrisk2 between 10 and 19.9 %, was 5% higher in the higher output population. The increase in the number of clients over 60 in this group may have contributed to this result. However, the percentage of clients with a greater than 20% Qrisk2 was marginally higher in the 20 and 40% LSOA population. Although differences in Qrisk2 were small, recordings of high blood pressure were significantly greater in the lower output areas compared to the 80% LSOA. The same was also true for obesity and smoking. This resulted in a higher number of GP referrals in the lower LSOAs and an increase number of lifestyle intervention referrals for weight management and smoking Discussion The data collected showed that outreach NHS health checks have the potential to identify people, from more deprived communities, with risk factors associated with cardiovascular disease. This was true of hypertension, smoking and obesity. Qrisk2 seemed to be less effective at identifying people who required intervention in the lower LSOAS .

Andy	Hutchinson	NICE	Supporting shared decision making in CVD prevention	Abstract Introduction Shared decision making is important to NICE. Every guideline's overview makes clear the need to make decisions in consultation with the person, taking into account their individual needs, preferences and values. NICE guidance on atrial fibrillation (CG180), lipid management (CG181) and type 2 diabetes (NG28) all specifically recommend shared decision making. Aim We sought to enhance and support shared decision making on cardiovascular disease (CVD) topics by producing patient decision aids that reflect our guidance. Methodology We produced decision aids on anticoagulant options for people with atrial fibrillation, statins for primary prevention of CVD, and control of blood glucose for people with type 2 diabetes. Each was produced with oversight from a project group of patient and clinician experts drawn from the guideline committees. These were among the first decision aids we produced, and we were assisted by decision aid experts. The interim process used for these decision aids has been finalised and is available at www.nice.org.uk/sdm. The decision aids will be updated with the guidelines. A decision aid on medicines for treating hypertension is planned. Results The decision aids are published on our website alongside other tools for the guidelines to which they relate. They have been downloaded many 1000s of times and feedback is positive. They are also included in dedicated resources for sustainability and transformation partnerships, aligned to the NHS RightCare and Public Health England CVD Prevention Pathway. The atrial fibrillation decision aid is recommended in all-Wales advice on oral anticoagulants. The statin decision aid is also the basis of a public-facing resource: http://indepth.nice.org.uk/are-statins-the-best-choice-for-me/index.html.ConclusionWe have produced decision aids to support shared decision making on CVD topics, which have been well received. We are continually working to develop our presentation of shared decision making support tools.

Aynsley	Cowie	BACPR	Third Edition of the BACPR Standards and Core Components for Cardiovascular Disease Prevention and Rehabilitation	Abstract In 2017, the British Association for Cardiovascular Prevention and Rehabilitation (BACPR) published the third edition of its standards and core components1. This revision has been designed to build upon the success of earlier publications and to refocus the attention of commissioners, healthcare professionals, politicians and the public upon the critical importance of robust quality markers of service structure and content in the provision of cardiac rehabilitation (CR) programmes. Previous editions described seven standards and core components, which have both been revised to six, with a greater focus on measurable clinical outcomes, audit and programme certification. The overarching aim of the document remains unchanged – to provide a blueprint upon which all effective cardiovascular prevention and rehabilitation programmes (CPRPs) are designed and a template through which variation in service quality can be assessed. Close collaboration between commissioners and CR providers could help to improve current services, which should be based upon the established, robust evidence base for CR. The principles within the updated document underpin the Department of Health (DoH) six-stage pathway of care for CR which encompasses patient presentation, identification for eligibility, referral, and assessment, through to long-term management. The DoH CR costing tool is advocated for use in financial planning of programmes, and it is specified that quality assurance of programmes can be obtained through local audit, and routine upload of individual-level data to the annual British Heart Foundation National Audit of Cardiac Rehabilitation. Application for national certification ensuring attainment of a minimum standard is encouraged. Although developed for the UK, these Standards and Core Components may apply equally to CPRPs in other countries. British Association for Cardiovascular Prevention and Rehabilitation. The BACPR standards and core components for cardiovascular disease prevention and rehabilitation 2017, 3rd edition. London: BACPR, 2017. External funding n/a

Francesco	Cappuccio	British and Irish Hypertensio n Society	May Measurement Month 2017: an analysis of blood pressure screening results in the United Kingdom and Ireland.	Abstract Introduction. Increased blood pressure (BP) is the biggest contributor to the global burden of mortality, disease and disability. Less than half of the population with hypertension is aware of it. May Measurement Month (MMM) was as a pragmatic temporary solution to the lack of screening programmes. It was carried out in more than 80 countries worldwide. Aim. To present the 2017 results from the United Kingdom and Ireland to raise awareness of the importance of BP. Methodology. Cross-sectional, opportunistic survey including volunteer >18 years who had not had their BP measured in the past year. BP was measured three times and a questionnaire collected demographic, lifestyle, and environmental details. The primary outcomes were number of people screened, and those who have untreated or inadequately treated hypertension (systolic BP >140 mmHg or diastolic BP >90 mmHg, or both, or receiving antihypertensive medication). Results. 7,714 individuals were screened during May 2017 (MMM), of whom 64.0% (n=4,935) were from the UK and 34.5% (n=2,661) from Ireland. They were 60.7% men, 71.9% white, 13.1% current smokers, 21.9% on regular anti-hypertensive medication, 5.1% known diabetics. Mean age was 49.8 (SD 16.8) years and BMI 26.5 (SD 5.1) kg/m2. Of the 6,065 individuals with all 3 readings available, the mean BP was 128.2/78.5 mmHg. After multiple imputation, 40.3% (3,099/7,695) had hypertension, 1,406 (23.4%) of the 6,003 individuals who were not receiving anti-hypertensive treatment were hypertensive, and 682 (40.5%) of the 1,683 individuals receiving treatment did not have controlled BP. Conclusions. Rapid screening of BP is achievable using volunteers and convenience sampling. Pending the set-up of systematic nationwide surveillance systems, these results suggest unmet needs in the British and Irish hypertensive population with 1 in 4 of those not on treatment found to have hypertension, and almost 1 in 2 on treatment not achieving BP targets.

Jane	Breen	Royal Brompton and Harefield NHS Foundation Trust	Increasing opportunities for primary prevention of Coronary Heart Disease, through genetic testing for Familial Hypercholesterolaemia.	Abstract Introduction Familial Hypercholesterolaemia (FH) is a genetic condition associated with impaired clearance of low-density lipoprotein cholesterol (LDL-C) from the circulation. If left untreated, there is an increased risk of premature coronary heart disease (CHD), 50% of men experiencing an event by age 50 and 30% of women by age 60. Affecting approximately 1:270, less than 5% are identified in the UK, leaving a large proportion of the population undiagnosed. Our service provides DNA testing for genetic variants known to cause FH enabling cascade screening of relatives once molecular diagnosis is confirmed. Our local communities have highly diverse, ethnic and socio-economic populations and whilst they have been successful in reducing early mortality rates from CHD, progress is significantly lower than the England average. Aim By improved identification, diagnosis and management of FH, we aimed, to address the unmet needs of local communities, reducing health inequalities and early mortality from CHD. Methodology A hub and spoke approach was used to expand the existing genetic testing service. FH genetic testing clinics were established in three GP practices and one DGH in Hillingdon and Slough CCG's, as well as an additional clinic in central London. Awareness and understanding of FH was also enhanced through education and support of primary care staff. Results FH genetic testing has increased from 164 patients in 2013-14 to 375 patients in 2017 - 2018.Known FH causing variants have been identified in 570 patients, 10 homozygotes and 560 heterozygotes. Conclusion We have worked closely with primary care providers and local physicians creating a network of referrers with increased knowledge of FH. Integrating specialist services into local communities has not only improved patient access, but increased diagnosis and treatment of FH in this diverse population, with the potential to reduce their risk of developing CHD.

Professor Harm	Van Marwijk	Brighton and Sussex Medical School	SPICES (Scaling up Packages of Interventions for the prevention of CVD in European and sub-Saharan settings: An implementation research project)	Abstract Introduction SPICES (Scaling up Packages of Interventions for the prevention of CVD in European and sub-Saharan settings: An implementation research project). An EU Horizon 2020 partnership between 5 global universities. Aim SPICES is an Implementation Research study using 'effectiveness-proven' interventions to reduce heart risk. Effects will be evaluated using a mix of qualitative and quantitative outcomes . Our aim is to deploy community based approaches engaging participants outside of formal health care settings, and volunteers trained to deliver the interventions amongst their communities and peers, to help people deal with heart risk. Methodology SPICES will sort participants into three risk categories and offer interventions only to those in the medium risk group. The high risk group is referred to care. To achieve our target of 300 participants in the intervention arm, 1800 participants must be engaged (1800/3 risk groups, 600/2 control and intervention arms). In the UK, SPICES will engage with civil society organisations to reach the communities and neighbourhoods they serve. This allows us to 'task-shift' primary prevention activities and to engage participants on a one-to-many basis rather than one-to-one, following with a 'multiplier model' whereby each participant is tasked with recruiting 5 more from family and friends. High -risk participants will be referred for NHS Health Check or equivalent, allowing us to test the proposition that community based profiling can reduce the bottleneck in GP surgeries which some claim is an unwelcome outcome of the existing programme. Results Will be measured using mixed methods. Implementation outcomes recorded through CFIR and RE:AIM domain based frameworks, Conclusion SPICES is an opportunity to test community based approaches to primary prevention at scale, and its impact on take-up of the NHS Health Check. External funding European Commission Horizon 2020Research & Innovation Actions (Health, Demographic Change, and Wellbeing).

Joseph	Mills	Liverpool Heart and Chest Hospital	Cholesterol Management in patients across Cheshire and Merseyside, Are we doing Enough?	Abstract Introduction: Under 75 CHD mortality rates in Cheshire and Merseyside are some of the highest in the country. Data from NHS Rightcare suggests significant reductions in morbidity and mortality could be achieved if patients at risk of CVD were better identified and their modifiable risk factors better managed. This project investigated current patterns of cholesterol management in at risk patients from a representative sample in the STP. Methodology: A baseline audit was undertaken in 10 practices across the STP. Data on the level of cholesterol management was collected on patients who fitted one of 9 patient profiles to describe their cholesterol treatment, the proportion of patients on statins, the intensity of statin used and levels of exemption reporting. Results: The study reviewed 95,732 patients of which 24,076 fitted one of 9 profiles. The inclusion criteria were any patient who had a recorded diagnosis of IHD, MI, TII diabetes, CKD>=stage3, stroke/TIA, PAD, QRISK2 > 10%, FH and Tc>7.5mmol/l. Use of statins ranged from 22% in patients whose TC>7.5mmol/l to 90% in post MI patients. The prevalence of IHD was 3.75% in the 10 practices (compared to a national prevalence of 3.2%), equating to 18,275 in the STP. 51% patients were on a high intensity statin, 43% on medium intensity statin and 6% on a low intensity statin. Across sites, statin treatment rates ranged from 50% to 64% and exemption reporting rates ranged from 6% to 39%. These results represent an initial cut of the data. A fuller picture will be described in the coming weeks as all data cuts are reviewed and interpreted. Conclusion: Results indicate that levels of statin prescribing vary greatly across different patient profiles. A focus on improving the number of patients on statina could significantly impact on the outcomes of patients in the STP. External funding The project was undertaken through a joint working agreement with the North West Coast AHSN, the Cheshire and Merseyside STP and Amgen Ltd. Financial support was provided by Amgen Ltd to support a wider project; that of the creation of a clinical and commissioning lipid management pathway created in parallel to running the audit as part of the overall work. Creation of the pathway which is not included here was developed with a large cross functional group of stakeholders from across the STP and is due for completion end of October 2018.

James	Jagroo	NICE	NICE Making Every Contact Count (MECC) resource for sustainability and transformation partnerships (STPs)/integrated care systems (ICSs)	Abstract Title: NICE Making Every Contact Count (MECC) resource for sustainability and transformation partnerships (STPs)/integrated care systems (ICSs).Introduction: NICE is committed to supporting the delivery of the 5 year forward view (5YFV) and the triple aim of improved population health, quality of care and financial sustainability. Prevention is key to achieving the aspirations of 5YFV and expected to be highlighted as essential to the delivery of the NHS long term plan. NICE offers practical support to STPs/ICSs at a regional and local level. Feedback from STPs/ICSs, identified that people would find it useful to be able to easily access evidence based recommendations from NICE that would support the delivery of MECC, in their areas. MECC seeks to support individuals in making positive changes to their physical and mental health and wellbeing. Methods: NICE responded to this request for greater access to evidence based recommendations to support MECC by undertaking a review of current resources and consulting external stakeholders to identify what NICE could offer. A reference group was convened to guide development of an online MECC resource for people working in STPs/ICSs. Results & discussion: The review and consultations highlighted an absence of evidence based resources regarding the delivery of 'brief advice' for the five key MECC lifestyle areas. In response NICE developed a MECC resource for STPs/ICSs. The resource provides an overview of: What NICE products there are in the five key lifestyle areas What NICE outlines regarding advice within the five key lifestyle areas Where to find key NICE resources What additional tools and resources are available Conclusion: The resource has been positively received by stakeholders. It was launched at the NICE annual conference and can be accessed on the NICE website. The resource features on Health Education England MECC website and in PHE's MECC implementation guide.

Beverley	Oliver	PHE	The North East and North Cumbria approach to partnership working for CVD prevention	Abstract Introduction The North East and North Cumbria CVD prevention programme is bringing stakeholders and partners together in a systematic way to deliver ambitions at local level. Aim Identify and map stakeholders, their contributions and expertise Establish local networks and shared governance with partners Provide leadership and support for local areas to act on CVD prevention Develop plans for local action. Methodology Successful partnerships have several elements in common including clear goals and purpose and awareness of partners' roles and responsibilities. (Hunter et al, 2012)Public Health England (PHE), NHS RightCare (NHS RC) and the Northern England Clinical Networks (NECN) with British Heart Foundation (BHF), Academic Health Science Network (AHSN) and National Institute for Health and Clinical Excellence (NICE) have collaborated in an incremental way around the topic of CVD prevention. There have been several stages to the infrastructure development: Partnership foundations - Preliminary raising of topic profile and agreement to act together. Partnership roles - PHE, NHS RC and NECN involved in recruitment process of CVD prevention managers.Pre-planning and mapping session - An informal 'drop-in' held to capture stakeholders and activities by locality. Stakeholder event - Delegates from across North East and North Cumbria collaborated in locality teams on the CVD prevention agenda. Advisory Group – consists of PHE, NHS RC, NECN, AHSN, BHF, NICE and NHSE leads. CVD Prevention Network Board – stakeholder event delegates have formed a North East and North Cumbria network for CVD. Results An emerging infrastructure for the local planning and management of CVD prevention in the North East and North Cumbria. Conclusion Investment in establishing local relationships is helping working partnerships to begin, develop and flourish! The shared partner buy-in is resulting in opportunities for shared thinking, planning and communication which assists with the tripartite delivery and sustainability of work on CVD prevention.

Ruth	Pell-Ilderton	East Cheshire NHS Trust	Community Services working together to support patients with Heart Failure	Abstract In Bollington, Disley and Poynton (BDP) East Cheshire one fifth of patients with Heart Failure (HF) admitted to hospital had at least one readmission within a year, August 17-August 18. This statistic was discovered during an initiative to upskill our Community Nurses in case management ahead of changes to the community nursing roles. Aim: Does upskilling the BDP Community Nursing team with knowledge of Heart Failure lead to earlier intervention for patients? BDP has a population of 33,392, of which 310 patients are coded with HF in Primary Care. The Community Nurses have a caseload of 280 patients, 22 patients are coded as HF. The following actions taken September-October 18:1 x bespoke training session for Community Nursing team led by Heart Failure Specialist Nurses4 x 1:1 teaching sessions Community Matron to Band 5 Nurses6 x joint patient visit with Community Matron and Band 5 + 6 Nurses As a result of the above actions:3 x patients have had a holistic assessment and escalation plan is in place Community Nurses report an increase in confidence in treating patients with HF. Our first PDSA cycle has focused on training and building relationships within the Care Community. By the end of the year we are aiming for 75% of patients on the Community Nursing caseload to have an escalation plan in place. Our next PDSA cycle will develop a standard protocol for reviewing patients with HF following admission to hospital with shared responsibility across Specialist Nursing, Community Nursing and Community Pharmacy. In the future we hope to share the responsibility for managing patients with HF across the community and in turn our vision is that any professional visiting a patient with HF would be able to recognise changes in a patient’s presentation and confidently signpost to prevent hospital admission.

Susan	Mitchell	Alzheimer's Research UK	Delivering dementia risk reduction messaging to all ages in the NHS Health Check	Abstract Aim The NHS Health Check is an ideal opportunity to highlight dementia risk reduction messaging, given the overlap with cardiovascular risk factors. Methodology When the dementia component on the NHS Health Check was introduced in 2013, it was only aimed at 65-74 year olds. Following a successful pilot project in 2016/17, there has recently been Ministerial approval for dementia risk reduction messaging to be offered to everyone attending an NHS Health Check. NHS Health Check Practitioner skills and knowledge are crucial to both the likelihood of dementia being mentioned within the Health Check and the quality of the information shared. However we know from feedback and evaluation during the pilot project, and from wider research around dementia training (What Works research project led by Leeds Beckett University, 2017) that practitioners do not always feel confident about including dementia as part of the NHS Health Check. Results In order to support the implementation of dementia risk reduction messaging for all NHS Health Check appointments, PHE, Alzheimer's Research UK and Alzheimer's Society have developed a range of training resources specifically for the NHS Health Check. These can be used by both trainers and individual practitioners to ensure they can deliver high quality dementia risk reduction messaging. Conclusion This session will demonstrate the resources and offer interactive opportunities to develop skills and knowledge in talking about dementia risk reduction messaging.

Hayley	Martin	East Sussex County Council	Increasing uptake of NHS Health Checks across the health and social care workforce	Abstract Introduction - East Sussex County Council (ESCC) aligned their NHS Health Check (NHSHC) programme with the Five Year Forward View priorities to improve the Health and Wellbeing (HWb) of the Health and Social Care (HSC) workforce.Aim – To increase uptake of NHSHCs in HSC workers and improve the HWb of the HSC workforce. Methodology – Public Health awarded grants to 3 organisations (acute/community NHS trust, mental health trust & county council) to offer NHSHCs to their eligible employees. All 3 organisations committed to releasing staff in worktime to attend the check and increase uptake. One NHS trust recruited wellbeing workers to their Occupational Health team to provide NHSHCs in-house. The other two organisations, procured an NHSHC provider, with the support of the NHSHC commissioner, to deliver their NHSHCs. ESCC worked together with NHS England to share learning on implementing NHSHCs in health workplaces, as NHSE were also piloting NHSHCs in 11 NHS trusts. Results – To date 35% of eligible employees (n=2111) have had an NHSHC across the 3 organisations (range 30-37%), over 12-18 months, higher than the 11% uptake reported by the NHSE pilots in 2016. Employees valued accessing the check at work and some made lifestyle changes. Conclusion – Working together with large HSC employers to provide NHSHCs to their eligible workforce, can help increase uptake in this group, support employees improve their HWb and improve employee satisfaction. Supporting factors include; organisational commitment e.g. worktime to attend; dedicated HWb lead in the organisation; working closely with the NHSHC commissioner to align with best practice and local NHSHC pathway; allowing developmental time for service start-up; using multiple methods of promotion/invitation; investing time in ‘walking the floor’, talking to teams/managers to increase awareness/uptake; utilising NHSHC software for consistency & GP data transfer; and flexible delivery at multiple sites and times to encourage access

Paul	Stokes	Southwark Council	Creating and testing an online digital health check tool, to increase uptake and engagement with the NHS Health Check programme in Southwark	Abstract Introduction: The NHS Health Check is usually delivered with a “one size fits all” approach. We are trying to create a more bespoke service, better optimized to patient preferences and clinical need. Here we report on our first stage of our programme. Aims: To talk to typical non-responders and test our ideas with them. To develop an online health check that approximates the face-to-face check from user entered data. To offer this to non-responder residents and monitor their engagement. Methodology: The Design Council provided guidance. We worked with our IT partner (who manages our routine invitations) to develop our new website. This was modelled on “Heart Age”, but uses QRISK2, and with a shorter list of locally-relevant recommendations. Results: Interviews suggested that residents aged 40-55 are willing to click on SMS web links, while residents aged 55-74 may require other routes (e.g. phone calls, under development). On average, for every 100 people invited, 50 people complete the face-to-face health check. Of these 50 non-responders, 25 have valid mobile phones on their GP record. After we sent these residents two SMS’s, asking them to visit www.southwark.gov.uk/DigitalHealthCheck, 7 people chose to try the online health check. If we attain similar results using non-SMS routes, then we expect to increase the overall engagement from 50 to 64 (i.e. 28% increase). Future stages of work will risk-stratify residents using electronic healthcare data, and evaluate the new service against the traditional service, using a randomized design. Conclusion: Digital health checks can increase engagement among residents who have traditionally declined the face-to-face offer. More work is needed to monitor how well these residents adhere to the recommended actions (such as recommendation to attend for a face-to-face check). External funding Taavi Tillmann was supported by NIHR Academic Clinical Lectureship. Design Council support was funded by the Local Government Association.

Julia	Reynolds	Innovation Agency, North West Coast AHSN	The North West Coast Atrial Fibrillation (AF) Collaborative: Preventing possible strokes through the diagnosis and improved management	Abstract Introduction The AF Collaborative supported the delivery of innovation and best practice to identify and better manage people with AF in primary care. Five CCGs who had low anti-coagulation rates participated with 6,497 (QOF, 16/17) people with undiagnosed AF, plus 4,721 patients with AF who were not adequately anticoagulated (QOF 16/17), giving a projected number of preventable strokes of approximately 449 per year. Aim We aimed to improve outcomes for people with AF and prevent possible AF-related strokes by (1) case finding people with AF (2) improving the management of those who are identified to be at a high stroke risk (CHA2DS2-Vasc >1) through appropriate anticoagulation treatment. Methodology The 106 practices enrolled were offered a tailored package of support including: the distribution of Kardia AliveCor mobile ECG devices; clinical AF training; case finding support; Quality Improvement (QI) training support to develop an AF improvement plan; GRASP-AF training. Observed vs expected prevalence in AF was used to set a QI targets to a) decrease their prevalence gap by 50%; and b)≥80% of their high risk AF patients receiving appropriate anticoagulation. Practices used a driver diagram to generate change ideas which were tested and implemented over the 9 month project. Qualitative data was collected from practice managers and GPs. Results Variation was seen against the QI targets set. 50 (85%) of practices achieved more than one of their two QI targets; 760 patients added to AF registers; 1032 high risk AF patients on anticoagulation therapy. Reduction of 41 strokes per year. Qualitative data showed that participating in the AF Collaborative led to sustainable changes in the management of AF that improved patient care. Conclusion The success of the QI programme varied greatly and was dependent on practice context as well as the wider landscape of CCGs and their priorities in this area. External funding The project was funded as part of a Joint working agreement between Bayer and the Innovation Agency. Additional funding was sought for some elements of the programme such as case-finding from Pfizer and Diiachi Sankyo.

Melanie	Roche	Cheshire and Merseyside Public Health Collaborative Service	Development of the Cheshire and Merseyside Quality Improvement Support Package for High Blood Pressure in General Practice (the 'BPQI' package)	Abstract Introduction Due to unwarranted variation in BP care and control, quality improvement in general practice high blood pressure (BP) care is a Cheshire and Merseyside (C&M) STP Prevention priority. Practices and commissioners are largely unaware of their performance against NICE guidelines, and workload pressures make quality improvement initiatives challenging. Aim To reduce CVD burden by improving high BP care and control in general practice. Methodology Building on insights from a NICE-led workshop with Wirral practices, British Heart Foundation Clinical Development Coordinators co-developed and piloted a high BP quality improvement package with Sefton CCGs and practice staff. A Health Education England bid secured public health consultant leadership for around a year. Ten practices across C&M became early adopters of the primarily nurse-focused BPQI package, which includes: EMIS-embedded dashboard/ audit tool (aligned to NICE QS business rule set)EMIS-embedded consultation templates (new and existing patients)Practice protocols Printable patient information leaflet Training support The C&M General Practice Nursing Collaborative helped secure NHS England funding for dashboard refinements and insight with early adopting practices. The dashboard enabled comparison of practice-level performance at baseline with performance at 14 weeks (average). Semi-structured interviews and an email survey were used to collect views of practice nurses, health care assistants, practice managers and GPs from 3 practices. Results Practice-level performance against indicators for care and control improved between approximately 3% and 15% at 14 weeks. Feedback was positive with staff describing the package as intuitive, time-saving, and effective. Conclusion The C&M BPQI package shows great potential as an acceptable and effective way to improve practice-level BP care and control. Development was a voluntary sector, health, public health and arms-length body collaboration. Wider adoption is needed for impact at scale, and future inclusion of other CVD risk factors, e.g. cholesterol / atrial fibrillation, could improve sustainability and impact. External funding Health Education England competitive bid funding (awarded 2015) for development of a C&M High BP education and training programme enabled a period of protected Public Health Consultant time to lead the BPQI initiative. NHS England funding (accessed via the C&M General Practice Nursing Collaborative) enabled IT refinements to the BPQI dashboard and insight work with the early adopting practices. Most investment in the initiative has been 'in kind' partnership working, e.g. British Heart Foundation, NICE, Health partners in primary care, public health time.

Dianne	Clarke	LiveWire (Warrington) CIC t/a LiveWire	LiveWire Liverpool Health Trainers	Abstract Unhealthy lifestyle is associated with cardio vascular disease. In Liverpool, LiveWire Health Trainers work to address this issue for those who live and work across the city. People often want to make lifestyle changes, may not know where to start or what programmes are available to support them. Against this backdrop, LiveWire Liverpool Health Trainers deliver a robust programme, pivotal to the prevention of cardio vascular disease. The programme, which addresses a wide range of lifestyle issues, utilises several behaviour change models. Offering both one-to-one and group support the focus is on working with individuals to adopt the most suitable approach inspiring them to make positive choices, motivating autonomy to ensure sustainability. Individuals are assisted in setting personal, achievable goals; maintaining a 12-week health plan, receiving ongoing encouragement, support to identify and overcome barriers. Clients are monitored for 12 months (clients with complex needs can continue to receive support beyond this period) enabling the impact of the programme on behaviour change to be evaluated and evidenced, e.g. A client who regularly played computer games was concerned about being overweight and having a sedentary lifestyle and wanted to build confidence in preparation of starting college. on his journey he has lost weight, become more active and is looking forward to achieving his goal. A client who is registered deaf and blind sought help at one of our community sessions. By supporting him to make positive changes in activity levels and eating habits, the client is two stone lighter. Confidence has increased he has embraced a healthy lifestyle and no longer needs our support The key to success is that LiveWire Liverpool Health Trainers engage a person next-door approach; friendly, understanding and supportive they continue to guide, empower individuals to achieve and maintain a healthier lifestyle.

Nayab	Nasir	PHE	Evaluating the National Five Year Forward View Cardiovascular Disease Prevention Programme	Abstract Introduction: The national Cardiovascular Disease (CVD) prevention programme is designed to implement PHE's CVD commitments on Next Steps on the NHS Five Year Forward View (5YFV). The focus is on decreasing prevalence of three high risk conditions: hypertension, atrial fibrillation and hyperlipidaemia, and closing the gap in health inequalities. The lifespan of the programme is April 2018 to end of March 2019 and is implemented across England. Aim: The evaluation of the programme aims at: supporting the generation of new evidence, as well as synthesise evidence gathered, to strengthen the case for local implementation of identified CVD prevention interventions. Developing a framework for the short/medium/long term monitoring of the programme, to aid in the future decision making across the health sector to optimise diagnosis and treatment. Methodology: A variety of data sources are being used to inform the formative and process evaluation e.g. high level monthly programme reporting, structured network meetings, project plans and programme activities. The process evaluation will additionally make use of semi-structured interviews with the 9 PHE centre leads, surveys and case studies. Additionally, the use of a Strategic Health Asset Planning and Evaluation (SHAPE) tool will allow triangulating the information from the formative, process and outcome evaluation with other indicators such as deprivation. Results: Some PHE centres have committed to trial or scale-up interventions, while others are in the planning process. 68% of STPs have currently prioritised at least one of the three high risk conditions, an increase of 29% from the baseline. Conclusion: There is good progress on the CVD prevention programme. It is highly likely that the programme will meet its target of engaging at least 80% of STPs to have a formal commitment to action on high risk conditions for CVD, by March 2019.

Caroline	Cupit	University of Leicester	Key points from a sociological study of CVD prevention in general practice	Abstract Introduction The sociological study of healthcare enables a different view to that captured using other approaches. The key points presented here are based on a sociological study of CVD in general practice which investigated how different aspects of CVD prevention fit together in frontline practice, and the challenges which arise for patients and healthcare professionals (HCPs).Aim To provide a view of CVD prevention from the perspective of patients. To highlight what actually happens as part of CVD prevention delivered through general practice, and present key points for the consideration of policymakers and managers. Methodology Data collection included interviews with patients, HCPs and local managers, observations in general practice, and policy analysis — focusing particularly on delivery of the NHS Health Check. Institutional ethnography was the overall study approach. Results I highlight key points relating to the following themes: The concept of prevention and what the problems are – differences between patients and policymakers Prevention as a low-cost, low skilled intervention or a complex problem requiring expert support? Evidence based interventions with short term 'outcomes' and the fragmentation of lifestyle support Targets and variation modelling demonstrate 'improvement', but how do they impact on HCPs' work, and on patients' experience of prevention? Medications, 'lifestyle' or both? Adapting prevention to individual patients — does 'shared decision-making' happen in practice?Conclusion This study points to, and brings together, key issues which may be overlooked by other types of study. These key points are designed to spur discussion about how CVD prevention practices could work better for patients, and how models of delivery may be improved. External funding Funded by the Health Foundation.

Cathy	Lines	Solutions for Public Health	International CVD prevention case studies: what works?	Abstract Solutions for Public Health (SPH) was commissioned by the British Heart Foundation (BHF) and Public Health England (PHE) to describe ten cardiovascular disease prevention programmes (in the form of case studies) successfully implemented in other countries that may be applicable and effective within the UK[1].PHE identified 116 current and historic programmes from across the world and SPH undertook a hand search which identified a further two CVD prevention programmes. Two initial exclusion criteria were applied to the programmes; those with no publications reporting outcomes in the English language and programmes implemented with final follow up prior to 2007. A set of factors were applied to the resulting 55 programmes to aid selection of a mix of prevention approaches that were successful in promoting lifestyle change and/or optimisation of medical management of CVD risk factors. Eight programmes were selected and an additional two programmes of particular interest to PHE and BHF were also included. The dynamic health systems framework was used to organise relevant information to develop the case studies. All ten case studies were multifaceted in that they targeted a range of modifiable CVD risk factors. Successful approaches included community initiatives in schools, workplaces, community centres, pharmacies, or peoples own homes in additional to primary and secondary care programmes. The programmes that developed a tried and tested sustainable approach that successfully engaged relevant stakeholders that could be readily transferred to other communities whilst reducing CVD risk had the best outcomes. Other factors of success included going to where the people are, empowering individuals and the wider community with information and an understanding of CVD risk that people can monitor themselves. Programmes often had a broad remit, targeting other non-communicable diseases such as diabetes and dementia in addition to CVD. [1] https://www.bhf.org.uk/for-professionals/healthcare-professionals/commissioning-and-services/service-innovation/international-cardiovascular-disease-prevention-case-studies

Ross	Boseley	East Sussex County Council	East Sussex NHS Health Check Patient Journey Evaluation	Abstract Introduction East Sussex County Council commissioned an evaluation of the NHS Health Check (NHSHC) programme delivered within General Practice, designed to understand the patient journey and experience from invitation through to any behaviour change or clinical intervention. Method Mixed-methods included qualitative in-depth interviews with stake holders and 90 NHSHC patients, case studies of patient journeys and secondary data analysis of 1527 patient surveys.Results97% participants reported being fairly or very satisfied with their NHSHC, higher than national studies, 58% (n=52) self-reported life style behaviour change. Positive findings indicated the NHSHC acts as; a prompt to facilitate lifestyle change, particularly diet modification; increases patient awareness of lifestyle choices; engages some people who don't frequently visit their GP; can have a broader positive impact on health e.g. cancer awareness. However participants reported in-consistent follow-up particularly those at increased risk, and of those that did see their GP, sometimes this was for other reasons not as a result of their HC. The study also highlighted confusion of understanding CVD risk and poor risk communication by practitioners. Of those 'referred' whilst many are 'signposted' to a lifestyle service via their HC, only a small number accessed services. Reasons stated included; not interested in using the lifestyle service, felt they did not need the service or were confident to make lifestyle changes on their own. Conclusion Our evaluation demonstrated high levels of satisfaction with the local NHSHC programme and that it appears to have supported a good proportion of people to make lifestyle changes. However areas to be improved include the communication of risk to patients & follow up; the quality of advice offered for both lifestyle & clinical risk factors and the quality of the data. Learning and outcomes from the evaluation are informing a programme of improvement for the local NHSHC programme.

Katherine	Bell	Medway Council	Integrating an outreach NHS Health Check Programme into a Lifestyle Interventions Hub	Abstract Introduction Cardiovascular disease (CVD) is the second leading cause of premature mortality within Medway, with premature deaths from CVD higher in Medway (79.2 per 100,000), than in England (73.5 per 100,000) (1). Within Medway; Central Chatham has one of the lowest life expectancies (2).In November 2017, an NHS Health Checks (NHSHC) outreach programme was implemented in the Smoke free Advice Centre (SAC) - a centralised public health 'hub' offering a number of lifestyle interventions in Chatham Central, one of the most deprived wards in Medway. Public Health staff were trained to deliver several interventions, whereby referrals into other services are to be reviewed at six and 12 months. Aim To establish and integrate a new NHSHC outreach programme into the delivery of health improvement services in a centralised SAC in Chatham. Methodology Quantitative data was collected (Health Options®) from individuals attending the outreach NHSHC program - over a 6 month period. Results Amongst delivered HCs (n= 534) 71 were smokers (13.4%), and 120 had a BMI 30+ (22.4%). Among smokers, 21 were referred into Medway Stop Smoking Service (29.5%), and amongst individuals with a BMI 30+ (120), 34 were referred on to either the local Diabetes Prevention Programme (DPP) or Tier 2 Weight Management Programme (T2WM) (28.3%), with a further 38 being referred into Exercise Referral (31.6%).Conclusion When comparing national programme data (3) to local referral levels; smoking cessation (5% & 29.5%), and DPP & T2WM (25% & 28.3%) - referrals from the outreach programme exceed what is being done nationally. With standing such comparison, further research is required to investigate why referral rates from NHSHC to health improvement service rates exceed national levels in the SAC, so to better inform practice and future implementation of the programme.

Kimberley	Lloyd	KCHFT	Engaging a Floating Workforce	Abstract INTRODUCTION: Kent Community Health NHS Foundation Trust (KCHFT) is commissioned by Kent County Council to deliver the NHS Health Check Programme across Kent. Whilst the majority of Health Checks are completed within Primary Care, our core team of Health Check Advisors also deliver at a variety of community venues, workplaces and events. The team continually explores additional ways of working to meet the needs of the eligible population, who are not able to and/or do not wish to engage with Primary care .AIM: To provide a Health Check/MOT opportunity for a workforce, who by nature of their occupation, have limited access to this provision within Primary Care. METHODOLOGY: initial contact and liaison with P & O ferries to discuss the best way to offer Health Checks and MOT's to the workforce Consider logistics of KCHFT Health Check Advisors and working on board P & O ships and organise rota for ships and different 'watches' RESULTS: Health Checks/MOT's were offered for staff working on board P & O ferry crossings from Dover to Calais. Around (tbc) Health Checks were completed and (tbc)MOT's. Onward referrals to GP's and other organisations, including One You services were made as a result of the interventions. P & O decided to overhaul their canteen menus in line with a more 'healthy eating' approach. KCHFT One You services were invited to support staff further as a result of the Health Check project. CONCLUSION: This project highlighted the need for other ways of working with communities where extreme lifestyle patterns are evident due to working hours and environment. Some of those working alternate weeks on ship/on shore found it difficult to follow consistently healthy patterns of behaviour. Also, in order to successfully engage with some of our communities, we need to 'meet them where they are'

Kimberley	Lloyd	KCHFT	Engaging a Floating Workforce	Abstract INTRODUCTION: Kent Community Health NHS Foundation Trust (KCHFT) is commissioned by Kent County Council to deliver the NHS Health Check Programme across Kent. Whilst the majority of Health Checks are completed within Primary Care, our core team of Health Check Advisors also deliver at a variety of community venues, workplaces and events. The team continually explores additional ways of working to meet the needs of the eligible population, who are not able to and/or do not wish to engage with Primary care. AIM: To provide a Health Check/MOT opportunity for a workforce, who by nature of their occupation, have limited access to this provision within Primary Care. METHODOLOGY: initial contact and liaison with P & O ferries to discuss the best way to offer Health Checks and MOT's to the workforce Consider logistics of KCHFT Health Check Advisors and working on board P & O ships and organise rota for ships and different 'watches' RESULTS: Health Checks/MOT's were offered for staff working on board P & O ferry crossings from Dover to Calais. Around (tbc) Health Checks were completed and (tbc)MOT's. Onward referrals to GP's and other organisations, including One You services were made as a result of the interventions. P & O decided to overhaul their canteen menus in line with a more 'healthy eating' approach. KCHFT One You services were invited to support staff further as a result of the Health Check project. CONCLUSION: This project highlighted the need for other ways of working with communities where extreme lifestyle patterns are evident due to working hours and environment. Some of those working alternate weeks on ship/on shore found it difficult to follow consistently healthy patterns of behaviour. Also, in order to successfully engage with some of our communities, we need to 'meet them where they are'

Jo	Whitmore	British Heart Foundation	FH - How genomics and cascade testing (CT) can affect lifetime course of disease by providing opportunities for early intervention and lives saved.	Abstract Familial Hypercholesterolaemia (FH) – How genomics and cascade testing (CT) can affect lifetime course of disease by providing opportunities for early intervention and lives saved. Whitmore J1, Haralambos K1, Humphries SE2 Background: FH is a common monogenic genetic condition occurring in ~1:250 people, meaning that there are ~260,000 people affected in the UK, 56,000 being children. High cholesterol concentration in the blood from birth leads to an increased risk of premature coronary heart disease (CHD), however this can be effectively managed with lipid-lowering therapy. Early detection of FH is important. If one parent has FH, there is a 50% chance of their children, also having the condition. Mutation testing of index cases and DNA-based CT allows children to be diagnosed at a young age, reducing their lifetime risk. Methods: In England and Wales, a computer system (PASS-clinical) is used to register patients and coordinate the testing process. We have utilised data on PASS, to examine the number and age distribution of FH mutation positive diagnoses over recent years. Results: Since inception (2000), the UK CT programme has performed DNA testing in 16941 index cases (mean age 48yrs) with 22% having an FH-causing mutation. 8359 relatives have been tested with 51% being mutation positive (mean age 35yrs), for a UK total of 7932 monogenic FH patients. Over the last 3 years the median age of diagnosis of relatives has fallen from 21-30yrs in 2015, to 11-20yrs in 2016 and 0-10 in 2017.Conclusion: Improved access and increased uptake of genetic testing for FH, along with increased numbers of CT means that more patients are being diagnosed and at an earlier age. Earlier diagnosis means that treatment can be started sooner, therefore reducing lifetime risk of developing early onset CHD. This work was funded by the British Heart Foundation

Samia	Arshad	Thrive Tribe	Reducing CVD risk through a cardiovascular disease prevention programme: 'Healthy Hearts'	Abstract Title: Reducing cardiovascular disease (CVD) risk through a CVD prevention programme: 'Healthy Hearts' Introduction Healthy Hearts delivers an evidenced based, accessible, cardiovascular disease prevention programme, operating in Hammersmith & Fulham, Westminster and The Royal Borough of Kensington & Chelsea. The aim is to reduce: CVD risk factor contributions to health inequalities – overall mortality attributable to CVD especially amongst people living in more deprived areas and their families Mortality from CVD in people under 75 years old – increase the number of years lived without disability attributable to CVD and/or CVD risk factors. Achievement of outcomes are measurements against the key performance indicators. Methodology Borough residents access a range of lifestyle programs following an assessment at a community based clinic; clinically recognised tools are used to determine clients that are likely to be at more than 15% risk of developing CVD in the next 10 years. Referrals are accepted for borough residents who are 18 or over. A pathway is in place to support patients at high risk, with co-morbidities, those with long term health conditions associated with CVD, as well as medically stable residents that have had a cardiovascular event 5 years ago or more. Bespoke sessions were delivered to meet diverse needs. Results The project data for 2017/2018 illustrates a number of encouraging outcomes:70% of service users came from the most deprived quintiles across all boroughs76% reduced their BMI72% completing the program reduced at least one risk factor50% of residents came from black, minority and ethnic groups. Conclusion The findings show that the program was exceptionally successful. The targets set for residents to start the program were exceeded. KPIs highlighted significant results achieved and encouraging health outcomes. Valuable lessons to adapt and tailor interventions in order to meet geographical and service user needs were learnt.

Alex	Lang	Health Innovation Network	Podiatrists providing opportunistic testing for atrial fibrillation (AF) using mobile ECG devices	Abstract Introduction1 in 5 strokes in the UK are caused by AF and are associated with greater disability and mortality than non-AF strokes (SSNAP, 2017). Early detection of AF can reduce stroke due to timely initiation and optimization of treatment, yet it is estimated that 500,000 people in the UK have undiagnosed AF (PHE, 2015). The number of people needed to test for unknown AF is approximately 1 in 71 people aged >65 (1.45%) (Lowres et al., 2013). With the advent of mobile ECG devices, it is increasingly possible to provide opportunistic testing for AF in novel settings. Aim To determine whether podiatry is a setting where opportunistic testing for AF is worthwhile. Method Through a national Academic Health Science Network (AHSN) project to increase detection of AF, the podiatry team at Guy's & St Thomas' NHSFT submitted an expression of interest to Health Innovation Network to trial mobile ECG devices for opportunistic testing for AF within their clinical practice. Seven Kardia (Alivecor) mobile ECG devices were allocated for use in community clinics, domiciliary visits and AF awareness events. Device usage was reported monthly by Alivecor through the national AHSN Network project. Results Between April – August 2018, 290 pulse rhythm checks using Kardia were performed by the podiatry team, detecting 12 people with possible AF, who were referred to their GP for further investigation. Possible AF detection was 4.1%, or 1 in every 24 people tested. Conclusion Podiatrists are well placed to detect undiagnosed AF using mobile ECG devices. The possible detection rate observed may be due to patients being older and often with existing cardiovascular risk factors. Clear communication of positive findings to those tested is key to reduce anxiety. Referral to GPs to ensure timely investigation, diagnosis and treatment is paramount.

Alex	Lang	Health Innovation Network	Using mobile ECG devices in mental health settings for opportunistic testing for atrial fibrillation (AF) and monitoring for ECG changes due to medication	Abstract Introduction People with a serious mental illness have a life expectancy 10-15 years less than the general population, predominantly due to increased rates of cardiovascular disease (CVD) (Laursen et al., 2014). Detection of AF can reduce stroke due to timely initiation of treatment, yet approximately 500,000 people in the UK have undiagnosed AF (PHE, 2015). Some psychotropic drugs cause ECG changes and are linked to ventricular arrhythmias and sudden cardiac death. ECG monitoring is therefore recommended but not always performed. Aim To determine whether mental health settings are appropriate for opportunistic testing for AF. Method Through a national Academic Health Science Network (AHSN) project to increase AF detection, Oxleas NHS Trust submitted an expression of interest to Health Innovation Network to trial mobile ECG devices for opportunistic testing for AF within their clinical practice in south London, and for monitoring ECG changes linked to medication. Eleven Kardia (Alivecor) mobile ECG devices were allocated for use in clinics, domiciliary visits and awareness events. Device usage was reported monthly by Alivecor through the national AHSN Network project. Results Between January – August 2018, 531 pulse rhythm checks were performed on patients and staff, detecting 17 people with possible AF, who were referred for further investigation. Possible AF detection was 3.2%, or 1 in every 31 people tested, compared to 1 in 100 of the general population (Lowres et al., 2013). A high number of unclassified results were observed due to HR >100bpm.ConclusionMental health teams are well placed to detect undiagnosed AF using mobile ECG devices in a population at increased risk of death from CVD. Benefits of monitoring ECG changes due to medication is described by those using the devices, and favourable to service users who would otherwise not receive an ECG.

Helen	Williams	Southwark CCG	Pharmacist Led Virtual Clinics to Improve Rates of Anticoagulation for Atrial Fibrillation in General Practice	Abstract Introduction: Failure to anticoagulate patients with atrial fibrillation (AF) is associated with increased risk of stroke. In 2013/14 in four London Clinical Commissioning Groups (CCGs), less than 65% of patients with AF at risk of stroke were anticoagulated. Aim: To ensure all AF patients at risk of stroke are offered anticoagulant therapy in line with national guidance. Design and setting: This was a longitudinal study across four CCGs delivered from Oct 2015 to March 2018 in the general practice setting. Methods: A standardised search was set up to identify the cohort of patients on the AF registers not currently receiving anticoagulation. Resources in the form of an audit tool and prescribing guidance were provided. Local specialist anticoagulant pharmacists delivered virtual clinics in which stroke and bleeding risk was assessed and patients suitable for anticoagulant therapy were identified. A management plan was agreed for each patient which the GP practice implemented. Results: Over 3,000 AF patients at risk of stroke were reviewed across 162 GP practices and more than 2000 patients were initiated on anticoagulant therapy, resulting in an increase in the anticoagulation rate to 79% across the 4 CCGs. A 23% reduction in stroke in people with known AF was observed over the following two years (compared to a 3.19% reduction nationally). Discussion: This project, which offered support to GP practices in the form of a standardised search, audit tool, prescribing guidance and virtual clinics run by specialist anticoagulant pharmacists, has improved the uptake of anticoagulant therapy in patients with AF and resulted in a reduction in stroke in people with known AF. External funding The project received funding from Bayer, BMS/Pfizer and Boehringer Ingelheim for implementation in Lambeth and Southwark CCGs. Further rollout was funded by Kingston and Lewisham CCGs, with support from the Health Innovation Network.

Mohit	Sharma	Public Health England	Implementation lessons from a compare and contrast of two STPs	Abstract Introduction PHE South East selected two Sustainability and Transformation Partnerships (STPs) for more focused support for CVD Prevention implementation. A comparison of the context and approaches in Hampshire and Isle of Wight (HIOW) and Kent and Medway (K&M) STPs is presented. Table 1: Comparison of STPs K&MHIOWCCGs87PriorityAFCholesterolPreexisting STP priority No No Ongoing action Led by the AHSN but not linked to the STPNo Clinical enthusiasm Yes Yes, with some reservations Data availability· Good, but conflicting data · Mapping of device deployment and relevant population groups· Limited data · Potential for local data Clinical leadership Leaders from LAs, primary care, secondary care, community providers, NHSE, AHSN Leaders from primary care, secondary care, academia and NHSE Contrasting approaches to the CVD Prevention presented in Table 2.Table 2: Contrasting approaches K&MHIOWEngagementLAs, AHSN, NHS RightCare, community providers Partnership across ALBs, RightCare, NICE, AHSN and BHF Leadership Community trust, CCGs, LAs via STP Prevention Workstream Local Authorities and CCGs via STP Prevention Board Data· data and mapping for device deployment· Using CVD data packs for agreement on further actions Outlining scale of the problem using national prevalence estimates System levers Ongoing work, established benefits Local data, clinical, academic and national leadership PHESE approach Influencing local leadership and implementation priorities Influencing establishment of local leadership Sustainability Shared vision, driven locally Establishing sustainability of local delivery Comparative lessons learnt: Absence of established actions makes cholesterol more challenging Greater time and energy required Local leadership is crucial Data and a financial case are critical Iterative quality improvement is applicable to both Conclusions It is possible to galvanise the system from a standing start to achieve change at scale but this is easier for an issue with an existing narrative and data.

Helen	Williams	Southwark CCG	An evaluation of a targeted approach to blood pressure control in poorly controlled hypertensive patients in an inner London borough	Abstract Background: Hypertension is one of the most important preventable causes of premature morbidity and mortality. Raised blood pressure (BP) is associated with an increased risk of stroke, myocardial infarction, heart failure, chronic kidney disease, cognitive decline and premature death. Purpose: The aim of this study was to evaluate the impact of targeted interventions on the BP control of a high risk cohort of hypertensive patients. Methods: This was a longitudinal study undertaken from April 2014 to March 2015. Patients with a systolic blood pressure (SBP) ≥160mmHg and/or a diastolic blood pressure (DBP) ≥100mmHg were identified. Patients were assessed with a baseline BP reading at initial review and a repeat reading following recommended changes to their hypertension management. Interventions to aid management were distribution of local hypertension guidelines, review at a virtual clinic with specialist cardiovascular disease pharmacists, the ability to refer to a community hypertension service or a secondary care hypertension service. Results: Patients with a baseline SBP ≥160mmHg (n=1231) demonstrated a mean reduction in SBP of 25mmHg (95% confidence interval 23.9 to 26.2 mmHg; p<0.0001). Patients with a baseline DBP ≥100mmHg (n=648) demonstrated a mean reduction in DBP of 16.7mmHg (95% confidence interval 15.7 to 17.6 mmHg; p<0.0001). Conclusion: In this high risk patient cohort, specific targeted interventions were able to significantly improve BP control, greatly reducing cardiovascular risk. Potential avenues for further evaluation include a cost-effectiveness analysis of this model of care, as well as developing methods to target patients who are not engaging with existing services. External funding No external funding was received for this project

Anne	Pridgeon	Public Health England	Taking a PHE Regional Approach to Cardiovascular Disease Prevention	Abstract Introduction: The PHE regions play an important strategic role in cardiovascular (CVD) disease prevention working with NHS England regional offices and implementing projects across large geographic footprints. Aim: This poster/ presentation will provide an overview of the work being delivered across the South, Midlands & East (M&E) and North Regions comparing and contrasting their approaches and how this work is complementing the work being delivered by both the national CVD prevention team and the PHE Centres. Methods: An overview of the characteristics of the three regions will be described, the approaches around CVD prevention that have been taken and details of the different bespoke pieces of work that have been developed and implemented. These pieces of work include: Behavioural insight work on CVD messaging NHS Smoke free status Heart age enhancement to maximise uptake in disadvantaged communities Joint communication to Sustainability and Transformation Leads providing current mapping of activity outlining the “size of the CVD prize”. Region wide focus on evidence-based, at-scale CVD prevention and continuation of a pan-North programme after the NHS England/NHS Improvement merger and formation of new regions. Region wide CVD engagement work facilitated by PHE and lead by the CVD STP leaders with a workshop to identify CVD priorities and the development of a pan North region CVD framework for STPs .Results: Working with colleagues in NHS England/ NHS Improvement slightly different approaches to CVD prevention are being taken by each Region. The impact and outcomes of these are being measured on an ongoing basis and will be presented. Conclusion: A number of innovative approaches have been taken by the PHE South, M&E and North Regions to embed cardiovascular disease prevention within the systems that they are working with.

Gabriele	Price	Public Health England	How Cardiovascular Disease Prevention (CVD) Can Help to Address Health Inequalities in People with Severe Mental Illness (SMI)	Abstract Introduction People with SMI die on average 15-20 years earlier than the general population. The leading cause of death is CVD (3.3 times higher rate than in the general population) and is associated with modifiable risk factors including smoking, obesity, diabetes and hypertension. Despite the high risk of physical ill-health, people with SMI are not always offered appropriate and timely physical health assessments and follow up support. Aims To present findings from an analysis of GP data examining the level of inequalities in CVD morbidities in people with SMI compared to the general population. To highlight key actions from the Right Care CVD Prevention in SMI Pathway for local areas to improve physical health and address the reported inequality. Methodology Using GP registered patients (aged 15-74) in England, prevalence was examined in the SMI and all patients for atrial fibrillation, CHD, diabetes, heart failure, hypertension, obesity and stroke by age, gender and deprivation. RightCare CVD Prevention in SMI Pathway was developed in collaboration with NHS RightCare, Public Health England, NHS England, third sector, academia and other key stakeholders. Results SMI patients have a high level of CVD morbidities with greatest inequality seen among younger people. Compared to all patients, SMI patients aged 15–34 years are more likely to have: three or more physical health conditions (5 times)diabetes (3.7 times)hypertension (3.2 times) obesity (3 times) This RightCare Pathway aims to support local commissioners and providers to take a systematic approach to reducing CVD risk in people with SMI. It includes: high impact interventions for optimal physical healthcare (e.g. targeted case finding, smoking cessation, workforce training)local implementation examples Conclusion Our findings highlight the importance of early recognition of CVD risk factors and timely and appropriate follow up support for this vulnerable group to reduce premature mortality. External funding NHS England co-funded

James	Hollinshead	Public Health England	CVD prevention data packs and their usage	Abstract Introduction Public Health England's cardiovascular disease (CVD) prevention programme began in April 2018. It concentrates on three risk factors for CVD: hypertension, atrial fibrillation (AF) and dyslipidaemia. National ambitions have been developed for these conditions. Existing National Cardiovascular Intelligence Network (NCVIN) resources provide relevant information but none relate specifically to the PHE ambitions: this information was requested by centre CVD leads. Aim To develop a 'do once for all' data pack highlighting variation in identification and treatment of risk factors to support the Centre CVD leads in their quality improvement work with STPs and CCGs .Methodology NCVIN were aware of existing work in the south east and used this as a template for a national pack. This template was adapted after discussion with Centre CVD leads and further feedback from the east midlands (EM) CVD prevention team. The final products were produced and automated by the PHE Local Knowledge and Intelligence Service (LKIS) and NCVIN. The packs were provided to the Centre CVD prevention leads via the internal SharePoint with supporting webinars. A technical webinar was held for LKIS colleagues to enable them to provide ongoing support to local teams. Results Centre CVD prevention leads disseminated the packs. In the EM they were sent to the CVD Prevention and Health Checks regional groups and Local Authority public health teams. They have been used in hypertension workshops run by the EM CVD prevention lead and the Regional Clinical Network is considering using them in their infographics. NCVIN are inviting feedback to guide future updates. Conclusion The packs are a successful example of collaborative working within CVD prevention. Their development, production and refinement involved partners from different teams within PHE and externally on a 'do once for all' basis. They have been well received and are being used to inform conversations locally.

Amanda	Walsh	Individual	Highlighting CVD Risk to factory workers with a visual cholesterol tool	Abstract Activity: In October 2017 I distributed a cholesterol health promotion tool to employees as a trial at an automobile company in West Berkshire where NHS Health checks were taking place. Aim: To deliver information regarding reduction of CVD risk to manual workers in their workplaces with the aid of a visual tool. Approximately 50 individuals were seen over 3/4 days. All individuals were given a cholesterol tool with a breakdown of results and specific ways to improve diet and life style. Implications for practice - follow up I worked on the NHS CVD health check programme from its inception in 2010 and saw first-hand the effects of inequality in relation to health care knowledge, motivation and expectation. This highlighted to me the need to give high quality standardised information at the point of the NHS Health Check by a trusted professional. It has also been documented that information given regarding cholesterol levels is inconsistent. The tool therefore acts as a prompt to staff and also visual aid to consolidate information given to individuals. I have met with a health promotion company who have advised on the next phase of development. Know your numbers - Cholesterol Tool The idea is simple - the heart shapes would be folded in half so that the only visible bit showing is the "Do you know your numbers" question on the front. It would then open up to show "Know your numbers" to the right of you and clinical signs of Familial Hypercholesterolaemia (FH) to the left. On the back would be the Six foods to help lower your cholesterol. It is designed as an aid for any one discussing cholesterol levels with their patients in primary care particularly pharmacies. All information compatible with current NICE guidelines. External funding Nominated in first round of RCN centenary project. No funding.

Shaun	Rowark	National Institute for Health and Care Excellence	NICE impact: cardiovascular disease prevention	Abstract Background and Introduction NICE impact reports review how NICE recommendations for evidence-based and cost-effective care are being used in priority areas of the health and care system. Around 7 million people in the UK are affected by cardiovascular disease (CVD) and 26% of all deaths in the UK are caused by CVD. Objectives Highlighting progress made by the healthcare system in implementing NICE guidance on CVD prevention. Methods Data were routinely collected from national audits, reports, surveys and indicator frameworks to review the uptake of NICE recommendations in relation to CVD prevention. A topic based reporting structure was developed, focused on areas which align with system priorities. The report is visually appealing and includes examples of partnership working, patient quotes and outcome data, alongside uptake data to give a view of impact. Results Routinely collected data were presented with a focus on: Changing behaviour to reduce risk Diagnosing and managing 6 high-risk conditions Severe mental illness (SMI).Discussion The report highlighted key points: More could be done on preventing smoking in schools and secondary care. There is regional variation in levels of overweight and obesity. Low levels of activity among adults across England. People under 80 are increasingly achieving blood pressure targets. NICE's recommendation for statin use was associated with a change in prescribing practice. More people with atrial fibrillation receive anticoagulation as recommended. Most adults with diabetes are referred for structured education but attendance may be poor. Most people with SMI had blood pressure recorded. Physical health assessments require more focus, as those with SMI are at risk of dying 15-20 years earlier.Conclusion CVD remains one of the largest causes of premature death, ill health and health inequalities. NICE guidance is central to tackling this. A system-wide approach is needed to continue to drive uptake of guidance.

Lirije	Hyseni	University of Liverpool	Engaging with Stakeholders to Inform the Development of a Computer Model for the NHS Health Check Programme: a qualitative study	Abstract Introduction: The NHS Health Check Programme (NHSHCP) is a multifactorial 'risk-reduction' programme offered to all healthy adults in England aged 40-74. Previous studies suggest that the NHSHCP may be further improved by including additional conditions and by facilitating local commissioning. This project is therefore engaging with stakeholders via a series of workshops to co-produce a modelling tool for local commissioners to quantify effectiveness, cost-effectiveness and equity of the NHSHCP. Aim: To 1) facilitate engagement with stakeholders, 2) develop a shared understanding of current implementation of NHSHCP, 3) identify what is working well, less well and future hopes, and 4) explore features and specifications to include in the modelling tool. Methodology. This qualitative study identified key stakeholders across the UK via networking and snowball techniques. The stakeholders spanned local (NHS commissioners, GPs, academics), third sector organisations and national organisations (including PHE and NICE). We used the validated Hovmand "group model building" approach to engage stakeholders in a series of pre-piloted, structured, small group exercises. Results: Fifteen stakeholders participated in workshop 1. There is continued financial and political support for the NHSHCP. However, many stakeholders highlighted issues concerning lack of data on processes and outcomes, variable quality of delivery, and suboptimal public engagement. Stakeholders' hopes included maximising coverage, uptake and referrals, and producing additional evidence on population health, equity and economic impacts. Key model suggestions focused on developing good-practice template scenarios, analysis of broader prevention activities at local level, alternatives when data not available, broader economic perspectives and fit-for-purpose outputs. Conclusion. A shared understanding of the current implementations of the NHSHCP was developed. Stakeholders demonstrated their commitment to NHSHCP whilst highlighting the perceived requirements for enhancing the service and discussed how the modelling tool would be instrumental in this process. These suggestions for improvement are informing upcoming workHORSE workshops and model development. External funding This project was funded by the NIHR HTA project 16/165/-1 workH.O.R.S.E. The views expressed are those of the authors and not necessarily those of the NHS, NIHR, or Department of Health and Social Care.

Vittoria	Polito	NHS England	NHS RightCare Physical Ill-Health And Cardiovascular Disease Prevention In People With Severe Mental Illness Pathway	Abstract Introduction NHS RightCare developed this pathway in close collaboration with Public Health England which addresses priorities in the next steps NHS FYFV and the MH 5YFV. The SMI population faces severe inequalities including a 15-20 year lower life expectancy compared to the general population and increased risks of developing heart disease, diabetes and obesity. There is considerable unwarranted variation in the uptake of the annual physical health check to identify these conditions. The pathway identifies the key components of an optimal physical healthcare system for people with SMI. Aims To identify the core components of an optimal health care system for people with SMI To create a national framework that identifies the key services and higher value interventions that every health economy should have in place To provide a complete resource package including NICE guidance and case studies to support local health economies with service redesign. Methodology Consensus workshops were undertaken with national clinical experts and wider stakeholders including PHE, NICE, academia and third sector to identify the national challenges facing people with SMI. Through this process we were able to identify the key evidence based interventions and initiatives that should be offered and in place for every SMI patient and gathered the most up-to-date best practice guidelines and case studies to support service transformation. Results A national system wide pathway was produced which local health economies can use to benchmark their current service provision against. The pathway identifies core elements of a health care system including; early detection and consistent long-term management of modifiable CVD risk factors, personalised care and support planning and workforce training and education. Conclusion The pathway provides local systems with a systematic framework with key interventions to be in place to reduce CVD risk, improve physical health and reduce premature mortality in people with SMI.
Sara	Harris	NWAS NHS Trust	30 Minutes to Save a life - Can a 30 minute training intervention improve bystander confidence in basic life support?	Abstract A timed 30 minute training intervention was developed covering the basic concepts of the chain of survival, recognition of a cardiac arrest, CPR, how to use and locate a public access defibrillator. This was delivered to both adults and children over 10 in a relaxed training environment . Those attending the training were then given the opportunity to get hands on with training equipment and practise for a further 30 minutes. A questionnaire was given to attendees with 5 questions around knowledge and confidence before and after the training and the results were then analysed. External funding None

Georgios	Xydopoulos	University of East Anglia	ATRIAL FIBRILLATION EVALUATION MODELLING SOLUTION FOR NHS	Abstract Atrial fibrillation (AF) affects over 1 million people in the UK. Prevalence increases with age from 0.7% in people aged 55-59 years to 18% in those older than 85. Approximately every fifth stroke is due to AF and costs the UK National Health Service between $12,000 and $17,500 per stroke. Anticoagulation reduces stroke risk by 2/3rds but only 55% of patient requiring anticoagulation actually receive it. Community pharmacists currently provide free of charge medicines use reviews and are ideally situated to facilitate the diagnosis and treatment of AF. OBJECTIVES: The aim of this study was to undertake a retrospective health economic analysis of the cost-effectiveness and implications related to opportunistic AF screening in primary care and the detection of previously undiagnosed AF cases in patients, and create a novel modelling solution that can empower individual users and organisations in England, Wales and Northern Ireland in their decision making, technology assessment, comparison of various anticoagulation drug groups cost effectiveness decisions. METHODS: A model was built on Microsoft Excel suite and it combined advance Excel Functions Data with Visual Basic Macros with assumptions based on a feasibility study and a new patient pathway. Apart from CE Return of investment of the new pathway was also calculated. Finally, the model was tested using through a cost assessment scenario utilizing input data from various well-established sources: Background research into the NHS and NICE guideline content, current clinical practice, published information and available data. Gathering expert opinion. Testing the model, including the assumptions and outcomes. Developing the template based on the costing model. RESULTS: Initial implementation tests suggest that the model presents quick and accurate results without sacrificing customisation options empowering users with the flexibility to adopt the model to their own variables findings and organisation. External funding This model was commissioned by community pharmacists in London

Natalie	Gold	Public Health England	Service evaluation comparing the effect of a behaviourally enhanced One You vs NHS branded leaflet on uptake of NHS Health Checks	Abstract Background The NHS Health Check (NHS HC) is a cardiovascular disease risk assessment, which aims to lower the incidence of cardiovascular events. However, national uptake is lower than aspired to. This service evaluation assessed the impact of different leaflets on uptake for 23 practices in Plymouth. Methods Practices were randomised to send out one of two short (2-sided) behaviourally informed leaflets, alongside their usual letter invitations, using either NHS branding or One You branding (consistent with a marketing campaign that took place in Plymouth at the same time). In addition, data was collected from 20 practices in Southampton, a neighbouring area with similar demographics that had no marketing campaign and continued to use the standard 4-sided NHS-branded national leaflet. A follow-up survey was sent to 3000 patients in Plymouth and Southampton. Results We could not draw any conclusions about the relative effectiveness of the leaflets from the uptake data. We received 292 survey responses. Self-reported uptake of the NHS HC was lower for those who received the NHS leaflet in Plymouth (53%) than for those who received the OneYou leaflet in Plymouth (73%) and for those in Southampton (70%), $\chi2(2, N = 250) = 6.5$, $p = .039$. However, the average age of patients in the Plymouth NHS sample was lower (mean = 50.15) than in Plymouth OneYou sample (mean = 56.5) and in Southampton (mean = 55.09), $\chi2(2) = 17.397$, $p < .001$. Age was the only predictor of uptake ($\beta=.044$, $p = .024$). ConclusionsWe did not find any differences in effectiveness between a 2-sided NHS-branded leaflet and a 2-sided OneYou-branded leaflet used beside a OneYou-branded marketing campaign in Plymouth, or a 4-sided NHS-branded leaflet without a marketing campaign used in Southampton. Consistent with previous literature, older patients were more likely to attend an NHS HC.

Vicki	Gould	Oldham Borough Council	Mental Health is Central to Good Health	Abstract Monies were awarded to Oldham CCG to develop and deliver Connect 5 and Mental Health Literacy training programmes across the borough. Project managed by the Public Health team at Oldham Council the aim of the programme is to ensure that a comprehensive health and wellbeing offer is available to Oldham residents. The Connect 5 training will build capacity in the health and allied health workforce (i.e. social care, CVS, criminal justice sector, housing, welfare & benefits and sports & leisure), equipping them with the knowledge and skills of how to support people and when to appropriately refer them to specialist services. The mental health literacy training will be offered to those at increased risk of low level mental ill and/or those needing support to focus on their wellbeing. Cohorts of patients/service users will be targeted for referral onto the programme, for example from health, i.e. Primary Care and Long Term Condition management clinics/services and the criminal justice sector i.e. police support services (including victim support) and probation/CRC services. Referrals inbound and also outbound to/from the programme will be targeted, with the aims following training being social connectivity, reduction in isolation, increased activity/participation and better health and wellbeing. Both training schemes will incorporate a train the trainer element to embed learning and build sustainability of the programmes within the workforce. Within the programmes, low level mechanisms will be inbuilt to the training programme to detect early warning signs to identify suicide risks, self-harm and poor mental wellbeing. Community based mental health literacy courses will support resilience and condition management. This in turn will prevent the escalation of conditions that present in primary and secondary care, including cardiovascular disease. External funding GM Transformation funding

Angela	Fletton	Norfolk County Council	Workplace NHS Health Checks 5 years on	Abstract Introduction: Norfolk County Council's Health, Safety and Wellbeing team have been delivering NHS Health Checks to their staff since 2010, with over 2,000 checks completed so far. Forty employees have now had a second NHS Health Check allowing for a longitudinal analysis of data. Method: Measurements of cardiovascular disease risk score, blood pressure, cholesterol ratio, BMI, and physical activity status, were collected from 40 (76% female) individuals at 2 time points over 5 years. Data were analysed using paired-sample t-tests. Results: Results showed reductions in most of the clinical measures, e.g. average (mean±SD) 10 year % CVD risk at 5 year recall was 3.6±3.0 compared to 3.8±2.9 at baseline. Analysis considered the typical change that might be expected within individuals following an age increase of 5 years. The majority of individuals either maintained (14) or increased (17) their levels of physical activity. Discussion: These results indicate general health improvements among this particular cohort of employees. It is difficult to generalise these results however, given the variability of delivery among providers. Behaviour change has been demonstrated by an increase in physical activity, which could explain some of the clinical improvements. Conclusions: Workplaces are an ideal place to deliver NHS Health Checks. The outcomes for this cohort showed overall health improvement. Next steps will include more detailed analysis within this dataset and gaining qualitative data from this cohort of employees, which will ascertain their experience of the NHS Health Checks and the role they may have played in any behaviour change.

Victoria	Price	Oxford University Hospitals NHS Foundation Trust	A collaborative project to optimise anticoagulation in primary care utilising specialist pharmacists	Abstract Introduction Oxford University Hospitals NHS Foundation Trust (OUHFT) provides a centralised warfarin service. Analysis in 2016, showed that whilst this service benchmarks well (mean time in therapeutic range, TTR, 74%), 2125 patients had a TTR less than 65% (1500 with atrial fibrillation, AF). Oxfordshire GPs are responsible for review of anticoagulation control and DOAC initiation. A questionnaire sent to Oxfordshire GP practices showed that many did not feel confident in assessing warfarin control or in prescribing DOACs. This encouraged collaboration between OUHFT, Oxford AHSN and Oxford CCG to optimise anticoagulation. Aim To upskill anticoagulation competency of GPs resulting in fewer patients poorly controlled on warfarin. Methodology A one year project was funded by educational grants from Pfizer and Daiichi Sankyo. One specialist pharmacist, with support from a consultant haematologist, provided: an email and telephone support service; and outreach support of educational sessions and option of reviewing patient notes alongside GPs. Results Fifty-two practices (74%) requested an educational session and 25 requested a session to review patient notes. Following the educational session, the percentage of GPs who felt confident to assess warfarin control using TTR increased from 54% to 96%, confidence in knowledge of DOACS from 34% to 93% and in prescribing of DOACs from 41% to 91%. Twelve practices supplied data on patient reviews. Of 312 patients reviewed in these practices, 198 remained on warfarin and 86 were switched to a DOAC (28 outcome of review unknown). During the 12 months of the project and the subsequent 6 months, the number of patients poorly controlled on warfarin reduced from 1772 (1189 AF) to 1328 (802 AF); with a prediction that 15 strokes secondary to AF were averted. Conclusion This project demonstrates the effectiveness of collaboration between organisations. A business case for the commissioning of this service has been submitted. External funding our project was supported by a Medical Educational Goods Services grants from Pfizer and Daiichi Sankyo.

Natalie	Gold	Public Health England	Designing a one-side behaviourally informed NHS Health Checks results card that encourages behaviour change	Abstract The NHS Health Check programme aims to reduce the incidence of major cardiovascular disease events. The NHS Health Check identifies individuals at risk of heart disease, stroke, kidney disease, diabetes and certain types of dementia, and offers advice and treatment related to the lifestyle factors that contribute to these conditions, such as obesity, smoking and alcohol consumption. The Local Authority of Sutton commissioned Public Health England Behavioural Insights (PHEBI) to design a one-sided results template for EMIS, which would maximise the impact of the health check results letter improve patient participation in the lifestyle programme, accessed via the Sutton OneYou website. We explain how behavioural insights were used in risk communication and the design of the results card, including: ordering effects, chunking, salience, visual attention, traffic-light labelling, behavioural instruction, endowed progress, friction costs, goal setting, loss aversion, personalization, messenger effects, feedback, prompts, and commitments. These behavioural insights were used to address barriers and facilitators to behaviour change, and to address negative perceptions of the NHS Health Check.

Trudie	Lobban	Arrhythmia Alliance & AF Association	Identifying the undiagnosed AF patient through 'Know Your Pulse' Community Pharmacy campaign across 10 countries during Heart Rhythm Week	Abstract Introduction AF is the most common cardiac arrhythmia, frequently asymptomatic with a third of people with AF currently undiagnosed. A manual pulse rhythm check can help improve detection rates and use of mobile ECG technology can help in its diagnosis. Previous studies have shown the value of Community Pharmacy to opportunistically screen for people with diabetes and hypertension. Arrhythmia Alliance(A-A) hosts World Heart Rhythm Week and the campaign theme was 'identifying the undiagnosed person with arrhythmia'. A-A partnered with The International Pharmacist for Anticoagulation Care Taskforce to host pulse awareness events ('Know Your Pulse') across ten countries including the UK. Aims• Raise awareness of pulse rhythm and connection to AF• Demonstrate effectiveness of opportunistic AF screening in Community Pharmacy setting, using manual pulse check and single lead mobile ECG technology Method An e-learning platform was developed to support education and dissemination materials for display in pharmacies. Resources for public use in the participating countries were produced by A-A, translated into local language. Pharmacists were instructed to take the pulse manually, assess symptoms and risk factors. When an abnormal heart rate or rhythm was detected, patient was referred to a physician with a referral letter containing additional information. Manual pulse check was supplemented by use of a mobile single lead ECG.Results2,573 people were screened. Risk factors identified included hypertension, diabetes and peripheral heart disease. Bradycardia was detected in 107 people, tachycardia in 14 people. An irregular pulse was detected in 212 patients (8.3%). AF confirmed in 35 people, 1.4%.ConclusionOpportunistic screening for AF in people over 65 years is recommended in AF management guidelines. Results suggest community pharmacies are good location for identifying undiagnosed AF. The results reflective of meta-analysis data which suggests 1.4% of people with undiagnosed AF in the general population. External funding None

Hazel	Nyamajiyah	Public Health England	The PHE CVD prevention project: Scaling up secondary prevention across the system	Abstract BACKGROUND The ‘Next steps on the NHS five year forward view' report was published in March 2017. It outlined PHE's commitment to ‘work with sustainability and transformation partnerships (STPs) and NHS England, including the RightCare programme, to support the implementation of identified preventative interventions at scale.” This resulted in the formation of a secondary prevention project, focusing on atrial fibrillation, hypertension and hypercholesterolemia. OBJECTIVE At least 80% of STPs to have formally committed to action on high risk conditions for cardiovascular disease, including one or more of hypertension, atrial fibrillation and hyperlipidaemia by March 2019.METHODS PHE made the case for establishing the programme and secured funding. The fundamentals for the programme included:1. Developing aims and objectives.2. Creation of a national logic model.3. Establishing evaluation and recruitment requirements. The programme moved into the implementation stage focusing on:1. Creation of a project network that convenes monthly.2. Stakeholder engagement events - programme orientation and midpoint event.3. Reporting established and utilised for reporting monthly STP commitments.4. Using the project as a key influencer for policy direction and system wide commitments, for instance: a. establishment of the CVD System Leadership Forum, which developed and agreed ambitions for the three high risk factors, and b. successfully influenced the NHS Long Term Plan RESULTS At this stage of the project (September 2018) 75 % of STPs have now committed to action on at least one of the identified high risk conditions. The expectation is that the objective of 80% of STPs committing to at least one risk factor will be met and surpassed CONCLUSION The project has proven to be successful in delivering on its objectives. Early evaluation results will be available by February 2019. This will provide valuable insights for future complex, large scale projects.

Rina	Dabhi	Positive Steps	Doing Things Differently - Delivery of Health Checks in Oldham by Positive Steps	Abstract Introduction: Positive Steps are a local voluntary sector organisation with charitable status. Since 2015 we have integrated delivery of Health Checks in Oldham within our all age Early Help service to engage the hardest-to-reach in our communities. The Early Help Health Check complements GP's Health Checks by taking a targeted approach - working to successfully engage key groups in the community. All Age Early Help takes a holistic approach to wellbeing. The service's aim is to reduce demand on specialist services by supporting people to manage a range of issues eg mental and physical health, housing, relationships, debt and finance. Method: Positive Steps, supported by Hope Citadel CIC and a number of local voluntary sector partners, have trained a team of 30 Early Help Engagement Workers to not only complete NHS Health Checks, but also deliver support to stop smoking, increase physical activity and promote weight loss. This is in addition to providing support around emotional wellbeing, housing, substance misuse, relationships. Significantly, the majority of this team while being skilled in engagement, do not have a clinical background. Results: Early Help have delivered nearly 3000 Health Checks in more than 50 community venues Innovative community engagement strategies eg engaging taxi drivers and using community venues eg community centres, libraries, mosques, factories and the home. Numbers of checks is highest in Oldham's target Wards46% of checks with BME community in 2017-18Checks with men increasing – 33.4% in 2017-18Increased detection rate of health issues since new approach has been adopted Conclusions: By shifting the focus from clinical skills to positive engagement and conversations about wellbeing, Early Help is seeing improved levels of engagement with Health Checks in key communities, thereby creating a healthier, fairer society. External funding The service is funded by Oldham MBC, including Public Health funding.

Simon	Alford	University of Central Lancashire	Health checks delivered by a community leisure service provider	Abstract Introduction Public health is under pressure with increasing health inequalities and overstretched services despite a range of policy initiatives. Given 50% of the eligible population have yet to engage with the NHS Health Check programme, it has been suggested innovative approaches to delivery may be beneficial. Aim Train leisure staff to meet NHS health check delivery standards. Facilitate leisure providers delivering additional services. Foster links between the NHS and leisure industry. Methodology Leisure staff will complete five-day health check training with a focus upon motivational interviewing techniques and behaviour change. Once trained, it proposed for leisure staff to provide health checks in conjunction with an offer (12 week leisure pass) aimed at promoting health and wellbeing through lifestyle modification, including signposting to relevant community groups. Results It is proposed to complete a cohort study exploring the feasibility of conducting health checks in a novel, non-clinical environment. A mixed methods early phase study will include two GP surgeries from differing neighbourhoods, as defined by socioeconomic status, within relative proximity to a leisure provider. Equal number of health check invitations (approximately 150 per practice) will be sent to individuals due to be offered a health check, allowing comparison with known uptake rates to be explored along with evaluation of service user experience and short/medium term impact (subject to funding). Conclusion A collaborative approach between leisure providers, local authorities/GPs has the potential to create a positive experience in a non-clinical environment for many hard to reach groups, including those facing barriers to mainstream healthcare services. This would be enhanced by services offering extended hours, seven days a week. Such an approach appears desirable given many local authorities/GP services have no direct pathway to wellbeing or exercise referral schemes. Ultimately it could reduce demands on general practice and wider health and social care budgets.

Stan	Thompson	Solutions 4 Health	Integrated Cardiac Disease Prevention Programme	Abstract Target Audience: Commissioners Background: Cardiovascular disease in Slough varies in comparison to the nation average. 65.5% of the Slough's adult population fall on the obesity spectrum, 8.9% of the population were diagnosed with diabetes; the mortality rate for under 75 CHD is 63.1 per 100,000. Significantly higher than the national average. Aim:. Implement an integrated cardiac disease prevention programme to provide a Single Point of Access to triage and refer users to evidence based behaviour change programmes; increase the uptake of health checks in R&M and men; reduce modifiable risk factors per year. Bring digital transformation. Method: Designed and implemented Cardiowellness4Slough. An integrated service model which takes into account cultural diversity to address the local needs of the population. A focus on MECC, partnership working, outreach has aided the success of this project over the 2 years. Results: Two years on and the results continue to be encouraging. Data is January 2018 - September 2018 Health checks: 717 Behaviour Triaged: 1,315 Behaviour change referrals: 1,265 E4H Referrals: 490Conclusion:The programme was designed to provide and coordinate early help for residents through better and faster access to information, advice and guidance, using health risks assessments and onward referral to appropriate services. It is our experience that integrating lifestyle services is fundamental in improving health and wellbeing. Expected Learning Outcomes: We expect the following: Provide evidence of the effectiveness of integrated lifestyle services Develop local programmes based on an evidence based model Raise awareness of effective tailored services to service users External funding The service is funded by Slough Borough Council

Rose	Wyatt	Public Health, Haringey Local Authority	Service evaluation of an innovative exercise referral scheme in Haringey, North London	Abstract Background: Haringey, one of the most diverse and deprived areas in London, has high prevalence of diabetes (9.5%), hypertension (26.8%) and coronary heart disease (5.3%). Increasing levels of obesity and physical inactivity puts Haringey at risk of worsening health outcomes. 'GP Gym' is a not-for-profit exercise referral scheme (ERS), operating in four Haringey community centres, all of which are within walking distance of associated GP practices. The intervention aims to improve health and social interaction through physical activity. The one-hour classes incorporate cardiovascular, strength and balance exercises which can be can be adapted to the participants' abilities. Appropriate participants are referred by GPs, and GP staff help out at sessions. An informal approach means there is no limit on the number of classes that participants can attend or miss. Costs are low as classes use minimal equipment, and participants contribute a small fee. Aim: To evaluate the effectiveness of 'GP Gym'. Method: Quantitative and qualitative data was collected from participants before and after using 'GP Gym' for three to six months. A survey collected GP views on 'GP Gym'. Results: Demographic analysis showed participation from a wide variety of ethnicities, ages and socioeconomic status. From the available participant data, paired t test demonstrated a statistically significant mean reduction in total cholesterol levels (n=133, mean=-0.28mmol/L, 95% CI -0.14 to -0.42, $p<0.05$) and reduction in systolic blood pressure (n=164, mean=-6.3mmHg, 95% CI -4.0 to -8.6, $p<0.05$). Participant HbA1c and weight had a non-statistically significant mean reduction. Case studies also illustrated improvements in participants' mobility and mental wellbeing. Other qualitative data from participants and GPs are currently being analysed. Conclusion: 'GP Gym' provides an exciting alternative ERS for Haringey, with promising health benefits including improved blood pressure and cholesterol levels. Close links with GP practices help with its popularity in the community.

Ashvir	Basra	Imperial College Healthcare Trust	Using service-user feedback to improve delivery of NHS Health Checks	Abstract Introduction: The West Sussex Public Health five year plan includes the two key aims of reducing premature death from Cardiovascular Disease (CVD) and reducing the number of people living with a long term condition as a result of CVD. The mandated Health Check Programme is a key element to achieving this. West Sussex County Council (WSCC) proactively engages with service users to seek their views of the NHS Health Check in order to determine how users deem the service and identify areas for improvement. Aim: To understand service user experience of their health check and their thoughts as to how this could be improved. Methodology: All those who accessed the NHS Health Check were invited to complete a questionnaire probing various components of their health check. Forms completed from April 2017 to March 2018 and returned to WSCC were analysed by the Public Health team. Results: 301 forms were returned to WSCC during this period. The overwhelming majority were satisfied with their health check. Thirty percent of the returned forms (92) commented on what we could do to improve this service. Comments were extracted from the data spreadsheet and thematically analysed. The theme that recurred most often was related to the need to improve the advertising and promotion of the service, there were also a number of comments about the need for the practitioner to have more knowledge about risk factors and how to address them. Conclusion: Service users have a unique view of the service delivered and can provide useful insight that can be used to improve service delivery. As a result of the feedback received in West Sussex we have developed a marketing plan for NHS Health Checks, and tailored training forums to update practitioners on key information related to service delivery.

Andrea	Hewins	Public Health England	The power of user-centricity and behavioural science in combination with digital technologies to redesign CVD prevention nationally.	Abstract Introduction PHE are undertaking a digital exemplar project which will demonstrate the power of user-centricity and behavioural science in combination with digital technologies to redesign CVD prevention nationally. The project is still in the early phase of “discovery” where the users’ needs are identified and analysed from which high level concepts to meet those needs are ideated, refined and prioritised. Aim To understand the needs and behavioural barriers and facilitators of the NHS Health Checks service users and identify intervention concepts, both digital and non-digital, that will support the delivery of an improved service for all parties involved. Methodology The project is being run using agile project management and the methodology is combining user centred service design with behavioural science principles. The steps in the discovery are: Identify service users (both public and business users)Identify the behaviours associated with the uptake and follow up of the NHS Health Check Identify their needs for a service using methods such as semi-structured interviews and diaries informed by the COM-B model of behaviour Map identified barriers and drivers to the target behaviours and identify opportunities for interventions Work with stakeholders and users to conceptualise new service designs which could meet their needs Prioritise the concepts and plan which will be taken into the Alpha phase As a digital exemplar, this project is also developing our organisational approach to combine the expertise and methodologies of service designers and behavioural scientists. Results The work is still underway and full results would be presented at the conference. Our users have been identified as The public Local authority commissioners Providers of the NHS Health Check Providers of healthy lifestyle services Conclusion We will present the ideas moving into the Alpha phase at the conference and our learnings on combining service design with behavioural insights.

Lee	Girvan	PHE NW	Af detection in community settings	Abstract Collaborative approach to improving the identification and management of Atrial Fibrillation in an Integrated Care Community Background AF is one of the commonest arrhythmias which is often asymptomatic and is associated with a significant increased risk of cardio-embolic stroke. There are currently no national screening programmes but strategies have been promoted to increase case finding. Mobile devices are now available which are not only sensitive and specific but are affordable and easily used in clinical practice. The GPs in one of North Cumbria's ICCs have explored avenues for using these within their practices and within the local community. Methods The 10 Eden GP surgeries used a protected learning time event in January to consider ways in which they could improve case finding of AF using mobile devices in their surgeries and the local community. They chose to use Alive-Cor within their practices with the devices being supplied and training provided through AHSN. They also engaged with the local Fire and Rescue Service to explore the idea of incorporating AF screening during the Safe and Well home visits to frail and elderly patients. Results At a further PLT event in June all practices attended a small group learning event for clinicians at which practice prevalence and anticoagulation rates were compared and discussed. This included input from a community cardiologist via weblink. During the same PLT event non-clinical staff received training in the use of Alive-cor devices. All Eden ICC practices are now activity involved in screening using these devices and neighbouring ICCs are considering implementing similar schemes in partnership with AHSN .The Local F+RS is now including AF screening using MyDiagnostick devices which have been supplied by the ICC with positively screened patients being signposted to their GP with 8 new cases of AF identified using this approach since June

Chryssa	Stefanidou	Public Health England	A systematic literature review and behavioural analysis to understand the barriers and facilitators in the engagement with the NHS Health Check Care pathway.	Abstract Introduction The NHS Health Check programme plays a crucial role in the prevention, early detection and management of non-communicable diseases (specifically CVD). This work will use expertise in behavioural science to produce a review of evidence and behavioural analysis across the NHS Health Check Care pathway to understand the current barriers and motivators faced by the 40-74 year old population and service providers (primary care, community) to engage with the NHS Health Check. Aim The literature review and behavioural analysis will identify key barriers and facilitators for whether people initially take up an NHS Health Check and then continue to engage, including identification of evidence on general health checks in the population and CVD prevention. The results will support improvements in the implementation, delivery and impact of the NHS Health Check programme in primary, community and social care settings in England. Methodology The methodology will consist of several methods including: Systematic literature reviews (both peer reviewed and grey) to identify behaviours associated with the uptake and follow up of the NHS Health Check, Stakeholder consultations, Mapping of behavioural and decisional pathway, Behavioural analyses of the identified evidence using theoretical frameworks such as the Theoretical Domains Framework and COM-B model of behaviour to identify the key barriers to, and facilitators of, these behaviours. Results The work is currently underway and full results would be presented at the conference. Conclusion The review and behavioural analysis of the evidence will provide important insights into factors that determine whether people initially take up an NHS Health Check and then continue to engage with it. The key barriers and facilitators related to the uptake and follow up of the NHS Health Check as well as intervention opportunities that could support delivery of the Health Check service will be presented at the conference.

Wong	Claire	NECS	A collaborative approach to the detection, management and medical optimisation of patients with AF	Abstract Introduction Following the identification of variation across Primary Care in the Hartlepool and Stockton-On-Tees locality, a programme of work was developed to detect, manage and medically optimise individuals identified as having Atrial Fibrillation (AF). Aim Improve detection, management and medical optimisation of those with AF, preventing subsequent Cardiac events and stroke. Methodology A combination of health intelligence and the implementation of evidence based schemes within Primary and Community Care were used. Firstly, the overall AF population was identified using an existing primary care based risk stratification tool. The 4 key areas of focus agreed were; untreated AF patients, potentially undiagnosed AF patients, treatment types (NOACs vs Warfarin) and overall risk of stroke within the following 12 months. This provided a baseline report for commissioning managers, leading to a programme of schemes to tackle this. Education sessions were held across Primary and Community care to raise awareness of AF and subsequent management. Social media (Facebook / Twitter) were used to raise awareness of AF. This promoted patient ownership, educating the public to check their own pulse. Myth busting videos regarding NOACs were also used to improve patient compliance. Each GP received practice level data, and conversations were held between CCG GP leads and Primary Care. The potential 'undetected patients' were analysed; along with ideas as to how this could be improved. In doing so, some practices identified 'ineffective coding' which was also resolved. Podiatry - patients who underwent Doppler testing, were referred back to their GP using a simple proforma when AF was identified. AliveCor – collaborative work with AHSN in promoting AF detection across; Primary, Community, Pharmacies, by both clinical/non-clinical staff. Following the implementation of the schemes, the same metrics were again downloaded using the risk stratification tool in order to measure the impact of the schemes. Results Conclusion

Emma	Barron	Public Health England	Healthier You: NHS Diabetes Prevention Programme; update on progress, retention and outcomes	Abstract Introduction The Healthier You: NHS Diabetes Prevention Programme (DPP) commenced in 2016 and aims to support those at risk of Type 2 diabetes and provide a behavioural intervention developed to prevent or delay its onset. Earlier this year, the programme became the first in the world to achieve country-wide coverage at scale and the largest globally in terms of people finishing a DPP. Aims To describe progress of the Healthier You: DPP and examine outcomes (completion, weight and Hba1c) for those who have finished the programme to date and to describe Programme evolution to improve reach through a new digital service option to be incorporated from 2019. The session will also provide an update on the re-procurement of the programme and changes to be introduced to further address health inequalities. Methods These analyses examine the data for referrals received between June 2016 and August 2018. Results There have been 275,947 referrals made in to the programme by the end of August 2018 and of those referred, 120,394 attended an Initial assessment and 74,707 attended an intervention session. There have been 17,303 participants who have finished the programme to date and of those, 53% attended at least 8 sessions or more (out of 13), with a mean weight change of -3.6kg (95% CI -3.8kg to -3.4kg) for overweight and obese participants. For participants who had a valid Hba1c recorded at Initial Assessment by the provider and end of the programme, the mean Hba1c change was -2.2mmol/mol. Conclusion The Healthier You: DPP is the largest in size and scale identified in the current literature. Completion rates were similar to those observed in the US DPP and the mean weight change was higher than expected when compared to Public Health England’s meta-analysis of 36 diabetes prevention programmes.

Gillian	Fiumicelli	London Borough of Bromley	Utilising results of an NHS Health Checks health equity audit to guide improvements	Abstract Introduction Findings from a rapid evidence synthesis from the University of Cambridge suggested that the NHS Health Checks programme did attract those with greatest need and did not widen health inequalities. To provide assurance that this was also the case with our local NHS Health Checks programme and to provide information of where changes were required, a health equity audit was completed. Aim To use a health equity audit to assess the equity of provision of the NHS Health Checks programme Methodology Using the national NHS Health Check health equity audit tool as a guide, questions to be answered by the health equity audit were identified as follows:1. Are GP Practices able to correctly identify their eligible population?2. Do GP Practices invite all their eligible population?3. Is the NHS Health Check programme provided to all who are eligible? GP Practice data on the eligible population was extracted on 31st March 2018; therefore anyone meeting those criteria on that date will have been included in the dataset for this equity audit. The data extract included detail of any invitation type, including declined, and NHS Health check completed from 2010 -2018. The data was analysed to assess any difference between age, sex, Lower Super Output Area, ethnicity, effect of GP Practice. Results The results for each of the variables will be presented. The variable which had the largest effect on invitation and take up of the NHS Health Check is the GP Practice. There are some limitations of the dataset used in the health equity audit which will be explored. Conclusion The health equity audit results are visually very powerful in demonstrating differences in equity of access which are being used to improve our local programme.

Manjari	Engelhard	Great Yarmouth and Waveney CCG	Transforming Outcomes for Atrial Fibrillation Patients in Norfolk & Waveney through the innovative use of clinical data.	Abstract Introduction Public Health England have highlighted that nearly half a million patients have undiagnosed atrial fibrillation (AF). Achieving optimal treatment for these patients has the potential to avert up to 14,220 strokes and saving £241 million. Between regions there is significant variation in AF diagnosis rates and appropriate rates of anticoagulation. Here we discuss measures recently put in place as part of a programme to improve AF detection and treatment in Norfolk & Waveney. Aim We propose to make innovative use of current information system “Eclipse Live” and provide live data on prevalence of AF to treating clinicians. The aim is to optimise and reduce the variability in the diagnosis rates of AF and appropriate anticoagulation utilisation across Norfolk & Waveney. Methods We have utilised the NHS Digital assured Eclipse Live system to provide real-time reporting, have introduced 131 portable ECG recorders across primary care to assist in AF diagnosis, and generated monthly reports for our practices on anticoagulation compliance. Results In the next six months we aim to achieve a 10% improvement in the prevalence of AF diagnosis, reaching a level of 28 patients per 1000 population. We also aim to increase our anticoagulation rates for eligible patients by 15%, enabling our region to have one of the country's highest rates of appropriate anticoagulation. Further we will monitor patient outcomes to see the impact of our programme on A&E attendance rates, admission rates and overall medical cost. Conclusion This project will demonstrate how patients at risk from AF can be effectively diagnosed and treated with minimal impact on workload through effective utilisation of data. By the end of March 2019 we will be formally collating the outcomes to see the impact our project has had on overall patient outcomes. External funding Eastern Academic Health Sciences Network funded 131 AF Kardia devices.

Filiz	Altinoluk-Davis	Public Health England	Cardiac rehabilitation in South West England	Abstract Introduction Cardiac rehabilitation (CR) is an evidence-based and NICE-recommended service that should be routinely offered to most patients in the following priority groups: myocardial infarction, percutaneous coronary intervention, coronary artery bypass graft, and to patients with heart failure. Aim The BHF National Audit of Cardiac Rehabilitation (NACR) shows that uptake in England is 51% with considerable variation in service delivery between regions. A PHE South West and NACR collaboration explored the degree of variation in CR services in the South West, including gaps in care and opportunities for quality improvement. Methodology The analysis included a range of indicators grouped thematically according to unmet need, gaps in care and opportunities. Data are for CR provider level activity between 1 April 2016 and 31 March 2017, analysed by programme and CCG. Results The data show that uptake in the South West is half that of the England average at 25%. Further to this, the analysis found variation in all aspects of service delivery with only two of the 20 CR programmes in the South West achieving all seven of the national clinical standards for certification, and five failing altogether. In particular, variation is seen in early and timely referrals with a quarter not referred early and half not referred in a timely manner. Median programme duration of 56 days was not achieved in five of the programmes reporting data. Patient outcomes post-CR were only recorded for 58% of those starting CR .Conclusion The findings highlight the extent of the variation in CR services across the South West based on the data that has been uploaded to NACR. Further work to quantify true population need, identify root causes and agree meaningful actions to address the variation, which is known to negatively influence patient outcomes, is required.

Zoe	Jayne	The Royal Free Hospital	> 50% INCREASE IN UPTAKE OF INEDX AND CASCADE TESTING THROUGH THE USE OF ONE-STOP-SHOP AND POSTAL SWABS	Abstract Background: National Institute of Clinical Excellence (NICE 2008) estimates that around 15% of familial Hypercholesterolaemia (FH) patients have been identified, and the clinical guidelines (CG71) recommend the use of cascade screening and DNA testing to improve detection rates. In 2014 the Royal Free employed two additional FH nurses, with the help of BHF funding, with an aim to increasing the identification of FH by 50%.Method: Following review of the current service in August 2015 a one-stop shop was set up in the lipid clinic. The FH nurses triaged the lipid clinic list, identifying those patients that potentially needed genetic testing or their families cascading, and targeted these patients for assessment. The patients were given the option of the one stop shop or separate appointment, as pre usual care. In April 2016 a telephone counseling service with postal swabs for cascade testing was set up. Again relatives were offered the option of the virtual service or an appointment at the hospital, as per usual care. Results: The number of index tested through the one-stop shop increased from 44 in 2014 to 133 in 2015, this level has been sustained despite the loss of one FH nurse. The percentage of positive index cases has remained constant at around 35%, which is slightly above national level. The implementation of telephone counseling and postal swabs increased the uptake from 21 in 2014 to 144 in 2016.Conclusion: The use of specialist FH nurses implementing a one-stop shop in the lipid clinic increased the genetic testing of FH index cases by >50% . The one stop shop and virtual cascade service decreased the number of visits required and time off work, travel and inconvenience for the patients. Both service innovations led to enhanced patient engagement and identification of FH.

Chris	Richmond	NHS England	Communicating CVD risk via the use of a website	Abstract NHS RIghtcare Communicating CVD risk through the use of a website Introduction NHS RightCare have worked with systems to scale a website concept for the communication of CVD risk. The initiative is based on one developed by a CCG in the North of England. At present the concept has been rolled out in a single CCG and across a whole STP footprint. The website content is developed by the area publishing the website which they can amend the messages to help as part of an evolving campaign. Aims To work with systems to help them communicate their system goals around CVD prevention. To increase the knowledge of CVD risks in a geography and identify ways in which they can be managed. To provide a resource that is owned by a system with input from all partners who assist in the management of CVD. Methodology Systems are engaged where they feel that having a website as part of the CVD communications plan would assist the pace and scale of the programme. Once the system has agreed that this is an approach that would be beneficial a meeting is held with all key partners to discuss how the local content can be developed. The system are then given access to a web publishing wizard that they can complete with all of their content. At this point they can also select the URL for their site. The website style follows a consistent design, but an area can include their own videos, and choose from a palate of graphics to personalise their site. The process of populating the wizard, once they have the content is not onerous, and requires no specialist website development skills. Once published an area has access to a content management system that allows then to update and amend the content to match their campaign. Results The roll-out in the CCG and STP is going to be evaluated looking at the impact of the website on; Public awareness of CVD via the use of an embedded questionnaire The impact of an areas project plans for communication of their CVD message. Conclusion This approach allows an area to access a resource that can be quickly and easily implemented at scale with the aim of improving public awareness of CVD.