East Midlands
Academic Health Science Network

Igniting **Innovation**

Transforming Long Term Conditions through innovation – 24 January 2017

Summary of innovative solutions available from companies in attendance

Introduction

The East Midlands Academic Health Science Network (EMAHSN) has joined forces with all 19 East Midlands Clinical Commissioning Groups (CCGs) to improve collaboration and partnership working between CCGs and industry suppliers.

Our event today is focused around commissioners and key NHS provider organisations and the priorities and challenges they have identified as part of their 5 year plans and the innovative solutions available from industry which could address some of these needs.

Key priorities and challenges to address

- *Diabetes*
- *Respiratory diseases*
- *Cardiovascular diseases*
- *Falls amongst older people living with frailty*

We want to:

- *Reduce or eliminate "wasteful" and unnecessary acute based outpatient appointments*
- *Increase efficiency in primary care for these LTCs (particularly related to GP activity)*
- *Reduce instances of escalation and emergency acute admissions*

This document provides a summary of some of the proven innovative solutions available from the companies attending today's event (24 January 2017).

The list is alphabetical.

Company overviews

3M

3M specialises in the analysis and development of health policy as it relates to funding and measurements of care outcomes.

3M solutions enable targeted care management interventions for patients with long term conditions. The patient populations of the 5 East Midlands STPs can be risk stratified and segmented using 3M Clinical Risk Groups. A series of preventable incident algorithms can then be run on each group (preventable initial admissions, preventable inpatient readmissions, preventable A&E visits, preventable use of ancillary services) to support focused intervention to meet all 3 of the stated target outcomes for this project.

A recent case study from a state-wide initiative in the US highlighted the following impacts:-

1. 15-20% reduction in hospital readmissions
2. 25% reduction in high cost imaging services
3. 22% reduction in hospital admissions for patients with COPD

Addresses priorities:

- Respiratory – diabetes – cardiovascular; prevention - self-management - diagnostics and earlier diagnosis - treatment

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Acute Technology Ltd

Acute Technology specialises in remote patient monitoring and particularly remote monitoring of medication adherence.

We've developed affordable technology that remotely monitors when patients take their medication, in real-time. Appropriate targeted messages sent to the patient, family members, carers and healthcare professionals has been shown to be the most effective intervention for improving medication adherence.

Medication is the common element of all LTCs, with costs increasing. As only 50% of medication is taken as prescribed, improving adherence promises improved patient outcomes and experiences as well as slower costs.

1. There is good evidence that electronic monitoring of medication adherence coupled with patient feedback improves adherence and patient outcomes through better self-management. Good results are specifically reported for diabetes medication and inhaler use
2. Our work includes involving family members and carers in the monitoring and that this can both improve the self-management environment and reduce burden on HCPs
3. It is technologically feasible to provide accurate adherence data to HCPs during reviews - this opens the prospect for a radical change in prescribing practice based on evidence of patients' actual use of the medication
4. With an NHS drug budget of >£15bn and non-adherence rates of around 50%, any opportunity to detect non-adherence must bring cost savings

Addresses priorities:

- Respiratory – diabetes – cardiovascular – falls; prevention – self-management - treatment

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AliveCor

We are dedicated to helping people take control of their heart health through the use of innovative mobile health solutions.

Kardia Mobile by AliveCor is NICE reviewed, evidence based electrocardiogram (ECG) for use with smartphones. This CE class IIa approved medical device allows individuals and clinicians to take in an instant, a documented, single lead ECG for heart rhythm status. Previously only available at the surgery, hospital or bulky equipment, this capability on a smartphone, with instant auto-analysis offers new ways of configuring services to improve outcomes at much lower cost.

1. Early Detection of AF for reduction of strokes
2. Symptom + rhythm capture allows remote diagnosis of palpitations
3. Empowers self-care for chronic condition management
4. Reduces need for outpatient visits by instant, patient facing results

Addresses priorities:

- Cardiovascular; prevention - diagnosis - self-management

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Appdragon

Appdragon is digital health company providing remote management and care of chronic patients using smartphone technology.

SmartMed is a digital health platform for monitoring patients including those with co-morbid conditions. It provides patients with an opportunity not only to save time (appointment and journey), but also provides them with a service where they can manage themselves with the support of their local GP. The GP has the ability to increase efficiency of the surgery both in terms of unnecessary visits and escalations and at the same time reduce acute appointments.

1. Reduction in both Primary and Acute based appointments
2. Money saved across the NHS (both primary and secondary care)
3. Increase efficiency of GP practices
4. Reduction in Escalation and Emergency admissions

Addresses priorities:

- Cardiovascular – diabetes – respiratory; prevention - self-management - treatment

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Appello

Appello is the UK's largest provider of Technology Enabled Care Services (TECS), offering a range of telecare and digital health. Solutions.

Appello deliver proactive insight led care services supporting the health and care system in areas such as:- supported discharge, increasing capacity and reablement. This is achieved through integrating Technology Enabled Care Services (TECS) into the care pathway. The Appello IP CareNet platform provides flexibility, scale and speed for integrating new products and services. Appello's innovation supports the NHS by reducing Delayed Transfer of Care (DTOC) through supported discharge, admission avoidance and building capacity in reablement/domicillary care.

1. Lives saved
2. Reduction in instances of escalation and emergency acute admissions
3. Reduction in journey times to access care
4. Money saved to the NHS

Addresses priorities:

- Falls; prevention and self-management

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Ascensia Diabetes Care

Ascensia Diabetes Care (ADC) is dedicated to improving the health and lives of people with diabetes; we are committed to adding more innovative and life-changing products to our CONTOUR® portfolio.

The Contour Next One® system; combines a remarkably accurate meter with an associated smartphone app which guides patients towards making better decisions, allowing more efficient consultations with their HCP.

This technology enables patterns and trends to be revealed that can help people understand their diabetes including smartLIGHT™ technology giving immediate feedback on blood glucose readings and remotely sharing their reports. Supported by continual education for patients and HCPs, this can help increase efficiency and reduce avoidable events due to poor management.

1. Accurate results with new innovative smartLIGHTS™ technology, giving patients immediate feedback, helping them understand how everyday activities impact their blood glucose levels and become better self-managers.

2. Digital HCP reporting allows remote consultations, improving efficiency, freeing up consultation times which can lead to reductions in waiting times
3. Tailored structured testing plans (smartTESTING™) used with smartALERTS™ ensure meaningful and appropriate testing is carried out to provide an accurate contextualised log book. This can help increase patient engagement as well as providing comprehensive data to allow the HCP to make more informed clinical decisions to better manage their patients
4. Second-Chance™ Sampling (ability to apply more blood to the test strip for up to 60 seconds after the initial application) helps patient satisfaction and compliance to their structured testing programme. In combination with a 24 month opened strip expiry this can help save the NHS money due to wasted strip usage

Addresses priorities:

- Diabetes; self-management – prevention - treatment

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Aseptika Limited (Activ8rlives)

Spirit Healthcare acquired Aseptika Ltd as subsidiary and now has broadest suite of digital healthcare solutions supporting long-term respiratory, diabetes and cardiovascular conditions. They cover low, rising and high risk patients and offer:

- Arm's length intervention (apps/monitors to promote education and lifestyle change - prevention) – Activ8rlives4 Wellness and Food Diary solution
- Bridging solutions with irregular but scheduled intervention (self-monitoring vital signs data sharing to delay rate of disease progression) – CliniTouch Vie or Activ8rlives Lung Health, according to IT skills
- High - Closely monitored (intensive clinical support monitoring at home) - CliniTouch Vie – most frail, intensive intervention to avoid frequent hospitalisation

Impacts include:

1. 67% reduction in unscheduled admissions amongst patient cohort - multiple regression analysis revealed that CliniTouch telemonitoring (Spirit Healthcare) was the only intervention that statistically significantly ($P<0.05$) reduced unscheduled admissions
2. Overall reduction of 9.1% in all COPD admissions (2013/2014) - easing winter and bed pressures
3. Effective in managing readmissions – number of admissions per head reduced from 3.13 to 1.02 per year ($p<0.001$)
4. Improved patients' experience of care – patient feedback demonstrated higher levels of confidence, knowledge about their condition and positive behavioural change. Patients benefited from close monitoring in their own home and learnt new skills to cope with their condition

Addresses priorities:

- Respiratory – diabetes – cardiovascular; self-management

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AstraZeneca

AstraZeneca is a global, innovation-driven biopharmaceutical business that focuses on the discovery, development and commercialisation of prescription medicines, primarily for the treatment of diseases in three main therapy areas - respiratory, inflammation, autoimmune disease (RIA), cardiovascular and metabolic disease (CVMD) and oncology – as well as infection and neuroscience diseases.

Turbu+

A digital health service to support patients with asthma or COPD to manage their medication and correlate medication use with symptoms and triggers to support self-management. Note this includes a Bluetooth enabled medical device designed specifically to passively monitor and ensure correct use of Turbuhaler.

1. Optimised medication use
2. Demonstrated improved QoL
3. Testing with 3rd parties have demonstrated reduction in OCS use in patients with asthma

Me&My Heart

A digital health service to support patients in the 12 months post MI. Includes modules which support medication management, healthy eating, exercise, cardiac rehab using a behavioural science engine to provide individualised support based on patient need.

1. Demonstrated impact on adherence and patient satisfaction in study in Sweden (presented ECS 2015)
2. 87% continuing to use post 6 months and 97.5% recommend to other patients
3. On-going clinical evaluation Germany

Balance
A digital health service to support patients with T2D to achieve guideline targets for HbA1c control, BP and cholesterol.
Includes on-line motivational interviewing, behavioural segmentation, medication management, symptom and goal tracking, exercise and diet support.

1. Impact not yet demonstrated – ongoing RCT in USA

Addresses priorities:
- Respiratory; self-management - treatment
- Cardiovascular; secondary prevention - self-management - treatment
- Diabetes; self-management - treatment

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Boots, Lloyds, Rowlands and Well

The Community Pharmacy Future programme is a collaboration between Boots, Lloyds, Rowlands, and Well providing improved care for patients and cost effective solutions for the NHS.

COPD Case Finding
Reducing the cost of care and increasing patient outcomes through early diagnosis. Community pharmacy counter assistants identify patients (>35yrs) who are: regular smokers, or purchasing cough mixture regularly, or on medicines for chest exacerbations. Patients could also self-refer. Risk assessment completed, micro-spirometry performed. Pharmacist evaluates risk and consults patient on their respiratory health. Patient either advised on self-care or referred to GP for confirmation of diagnosis.

1. £215m estimated national lifetime saving from smoking cessation
2. £157m national saving from identifying people early and the annual variance in cost of treating moderate and severe COPD
3. £107m estimated annual saving from reduced productivity losses

Four or More Medicines
A 6 month support service targeting patients >65 with polypharmacy, incorporating STOPP/START, a falls risk assessment and a pain assessment. Practical issues relating to medicine use, timings and management were typical of the interventions carried out by the pharmacists who offered support to those with long-term pain or medicines adherence issues. The value of the brief regular interventions meant that recommendations could be easily reviewed and developed over time.

1. £36m estimated annual saving from reduced prescribing costs and fewer hospital admissions from adverse drug incidents
2. £34m estimated annual saving from reduced hospital costs as a result of reducing falls associated with fractures
3. Findings published in the International Journal of Pharmacy Practice

COPD Support Service
Improving patient outcomes through support of self-care in long term conditions (COPD). Patients identified from pharmacy records. Assessed using validated tools (CAT, MRC) Morisky/EQ5D. Focus on improving inhaler technique and support for self-management through rescue packs. Referral letters to GPs designed with GP input. Encouragement of uptake of flu vaccinations. Lifestyle and behavioural support provided.

1. £139m annual saving in NHS resource usage
2. £86m potential lifetime savings from stopping smoking

Addresses priorities:
- Respiratory; diagnostic - earlier diagnosis – self-management
- Falls; prevention - self-management

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BT

BT is the UK's largest provider of IT and Telecommunications.

Increasing efficiency AND improving patient outcomes requires evidence-based sustainable care transformation. You benefit from predictive analytics across your health and social care economy to target patients, care pathways and processes based on history, cost and probability analysis. Built-in workflow helps initiate and manage improvements, fine-tuned by continually measuring effectiveness.

Includes clinical and patient access via a modular, extendible solution without replacing existing systems. Previous work includes, but is not limited to, diabetes, respiratory, cardiovascular, falls.

1. Sustainable care transformation across entire health and social care economy
2. Evidence-based cost and outcomes improvements
3. Not limited to specific conditions, care pathways or care setting (primary, secondary, social, community, mental)
4. Whole Systems Transformation support to enable you to focus and embed sustainable improvements

Addresses priorities:

- Respiratory – falls – diabetes - respiratory; diagnostics and earlier diagnosis – self-management - prevention - treatment

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smartMDS

Cairns Solutions

Technology company with a new medical product SmartMDS to help medicine adherence. Between 30-50% of all patients do not take their medication as prescribed SmartMDS reports on any breach of adherence so the extended care team care act on the information before is become a bigger problem.

1. Reduce the number of GP visits and non-elective hospital admissions
2. Help the self-care management of medication
3. Real time information on adherence so the extended care team can be proactive with the information
4. Reduce the annual NHS medical wastage cost

Addresses priorities:

- All LTCs that take oral medication: cardiovascular and diabetes; prevention - self-management

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care is

Care is

Private company based in Nottingham; Parent Company supplies clinical decision support solutions into 98% practices in New Zealand.

Valida Decision Support:

- Provides in-consultation clinical decision support from best practice clinical guidelines
- Facilitates patient engagement in decision making
- Produces and publishes individually customised self-management plans
- Provides a platform for integrated health and social care with patient engagement
- Applies standards to and acts as a conduit for communications between care providers
- Reduces inappropriate activity (referrals and admissions)
- Acts as a portal for other solutions integrating into primary care

1. Increased patient self-management
2. Improved quality of care
3. Reduced referrals and admissions
4. Reduced costs

Addresses priorities:

- Respiratory – falls – diabetes - respiratory; diagnostics and - earlier diagnosis – self-management - prevention - treatment

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Changing Health

Changing Health

Changing Health offers evidence-based education and decision support tools to improve clinical outcomes, patient satisfaction and use of health resources.

80% of spend on diabetes goes on avoidable complications; 2/3rds do not understand their diabetes; only 3% attend education. People spend 3 hours a year with a healthcare professional (HCP): 8,757 self-managing.

From Newcastle University, we offer supported self-management accessible 24/7: digital access to X-PERT (only Type 2 diabetes education proven to have clinical impact); evidence-based digital decision support tools; personalised telephone coaching applying proven evidence-based techniques and HCP online behavior change education accredited by the Royal College of General Practitioners.

1. X-PERT proven to reduce HbA1c by 1.4% or 15.3mmol/mol
2. 22.9% improvement in empowerment scores
3. 8.3% reduction in prescribing costs
4. The NIHR published that web tools + remote support, like those provided by Changing Health, generated a 50% greater weight loss than web tools alone

Addresses priorities:

- Diabetes – self-management, secondary prevention (primary prevention coming Q2 2017)

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Circassia

Circassia is a specialty biopharmaceutical company focused on respiratory disease and allergy.

The NIOX Vero® product is used by specialists globally to aid asthma diagnosis and management. Fractional Exhaled Nitric Oxide (FeNO) is an important quantifiable biomarker of allergic airway inflammation and an accurate predictor of inhaled corticosteroid response. Measuring FeNO in exhaled breath using NIOX Vero® allows a quick, non-invasive, simple, safe and quantitative measurement of Nitric Oxide in human breath at the point of patient care.

1. Supports patient care closer to home - increasing efficiency of care for long term conditions in primary care (particularly related to GP activity

2. Efficient Asthma diagnosis and treatment, patient monitoring and adherence to therapy - using FeNO in conjunction with existing tests was more cost-effective for the diagnosis of asthma than use of existing tests alone. Can help healthcare professionals substantially alter their asthma treatment recommendations (36% of cases)

3. Reducing the instances of wasteful and unnecessary acute based outpatient +/or emergency acute admissions - FeNO-guided treatment experience significantly reduced exacerbation rates up to 50%

4. Saves money for the NHS – in a US study the use of FeNO in addition to standard of care was estimated to save $629 per subject/year, nearly a 23% cost difference per year and the use of FeNO in conjunction with existing tests was more cost-effective for the diagnosis of asthma than use of existing tests alone

Addresses priorities:

- Respiratory; prevention – diagnostics and earlier diagnosis - treatment

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Clement Clarke

Clement Clarke International Limited undertakes Research developing Products addressing needs of Patients Asthma Management, Inhaler Training and Pulmonary Drug Delivery.

Flo-Tone MDI (Flo-Tone CR) uses a ‘Positive’ Whistle to help patients learn to inhale SLOWLY and STEADILY. Whistle Signal is a prompt for the canister to be pressed releasing medication and duration of the Whistle helps the professional to coach the patient towards correct use. Studies conducted with the Flo-Tone ensure that it delivers the full dose. The first study detailing the development of the improvement and performance was presented at BTS 2015 and DDL26.

1. Drug delivery improvement - Therapeutic Improvement
2. Less throat deposition – potentially less unwanted throat side-effects
3. Better control - less breakthrough – less SABA needed
4. Better control – less hospitalisation

Addresses priorities:

- Respiratory; prevention – self-management

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Connect Health Solutions

Connect Health Solutions is purely focused on transforming diabetes management to create simpler healthier diabetics using real time telemetry.

Providers of GSM based blood glucose monitoring devices and portal telemetry that provide real time results connecting healthcare professionals and patients to manage their condition.

We connect diabetics entire circle of care using the industries only cellular real time blood glucose meter matching sophisticated technology with a personalised approach.

Impacts:

1. 2-3 fold increase in adherence to treatment plans
2. 10% or greater reduction in A1c
3. Demonstrable reduction in average BG
4. Predictive modelling of high cost beneficiaries

- Diabetes; self-management

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Cupris

Cupris provides a secure communication platform (app and web-platform) associated with smartphone-connected medical devices for remote clinical examination.

Cupris can help better use expensive and limited expert opinions by having the patient assessment performed by health care assistants, nursing staff and paramedics, or patients and carers themselves.

It enables the secure exchange of confidential medical history, clinical images or videos and is especially relevant for the monitoring of long term chronic conditions, that could be done closer to home and more systematically. By improving healthcare communications, it prevents unnecessary appointments and speeds up patient consultations.

1. Reduction or elimination of wasteful and unnecessary acute based outpatient appointments: Cupris reduces face-to-face consultations by enabling remote consultations whenever possible, freeing up time and resources

2. Increasing efficiency of care for Long Term Conditions in primary care (particularly related to GP activity)

3. Makes consultations more efficient as a lot of information is provided prior to in-person appointments, in the patient's own time

4. Saves money and time for the NHS and patients

5. Patient empowerment and improved treatment compliance because the clinicians can better explain the conditions to their patients

Addresses priorities:

- Respiratory – diabetes - cardiovascular; diagnostics and earlier diagnosis - self-management

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DrDoctor

DrDoctor is a digital outpatient management tool. We provide patient centric scheduling and communication tools.

DrDoctor is a scheduling system which improves clinic utilisation, reduces admin and reduces unnecessary appointments in acute settings by using data, collected from patients, to inform scheduling. For example, rather than a time based follow-up, we help clinicians decide who to see next based on metrics collected directly from patients. Patients can automatically be triaged into rapid access, virtual or no follow-up streams and their recovery monitored remotely.

1. Significant reduction in follow-up appointments
2. 30% fewer DNAs
3. 10% better clinic utilisation
4. 25% reduction in administration costs

Addresses priorities:

- Diabetes – respiratory – cardiovascular; earlier intervention diagnosis and self-management

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Elastacloud

Elastacloud is a leading Data Science and Data architecture consultancy specialising in enabling, delivering and visualising our customers' data assets.

Elastacloud has migrating numerous workloads for The Royal Free Hospital over to a cloud based data architecture solution.

In addition to delivering cost savings data analytics can be performed at infinite scale for research.

1. An at-scale data analytics platform for research
2. Infinite scalability for workloads delivering high-performance compute
3. Significant cost reductions

Addresses priorities:

- Diabetes – respiratory – cardiovascular - falls; prevention and self-management

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Entech Health

Entec Health is a specialist healthcare technology business and an appointed distributor for the Silhouette® digital wound assessment system in the UK.

A new technology-enabled model of care for patients with diabetes foot ulceration, deploying the Silhouette digital wound assessment and information management system. The solution enables HCPs to objectively assess DFU healing progress and response to treatment. Data is available remotely and HCPs can confidently optimise treatment and timely referral to specialist MDT care.

Addresses key STP challenges:

- Evidence-based, outcomes-focused care
- Timely care, closer to home in community
- Reduction in outpatient appointments
- Avoidance of hospital admissions
- Improved service access for patients
- Reduction in cost of service delivery

A live demonstrator, supported by EMAHSN, has been established in partnership with Derby Teaching Hospitals NHS Foundation Trust, Derbyshire Community Health Services NHS Trust, Southern Derbyshire and Erewash CCGs. The impact of the innovation:

1. Moving 35% treatment sessions to community clinics forecast to reduce DFC service costs by 15-20%
2. Patient feedback is very positive – high convenience, supports concordance
3. Quality of treatment maintained with opportunities for improvements
4. Projected savings from deployment across East Midlands £0.9m-£1.8m per annum, for DF pathway
5. Additional opportunities for adoption of solution for Tissue Viability services

(Silhouette® is developed and manufactured by ARANZ Medical Limited)

Addresses priorities:

- Diabetes; prevention (of amputation due to DFU) - diagnostic and earlier diagnosis (DFU status) - treatment (DFU management)

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Evolve

A clinical services specialist with over 50 years combined experience delivering community healthcare services through private organisations and the NHS.

Service to support self-management of Asthma and COPD patients, improving the day-to-day control of their condition. Industry standard tools assess inhaler technique and control, clinicians provide education on technique, management and exacerbations. 2 week follow up assesses change. Conducted in pharmacy, at home and online. Research shows most patients don't use inhalers correctly and 75% of asthma hospital admissions are preventable. Improving condition control reduces exacerbations and improves patient outcomes.

1. Great patient feedback on better condition understanding and inhaler technique
2. Improved ACT and CAT scores on 2 week follow up
3. Better patient understanding of exacerbation red flags to reduce critical incidents and hospital admissionsIdentification of patients with poor prescribing and or inappropriate inhaler type

Addresses priorities:

- Respiratory; self-management

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Ferring

Reducing falls and fractures in over 65s is a priority target for reducing A&E and acute hospital admissions.

Routine screening for nocturnal polyuria in older people, living alone or in care settings, can identify those at additional risk of falls. Noqdirna, the first licensed therapy to treat nocturnal polyuria in over 65s has just been launched in the UK and is a cost effective treatment.

Implementing Medicines Optimisation in this patient group can identify additional benefit by reducing use of current off licensed medication.

1. Those over 65 years of age are most at risk of accidental falls, suffering both the highest mortality rate and the most severe injuries. There are 65,000 hip fractures each year leading to the occupation of over 4,000 inpatient beds at any one time across England, Wales and Northern Ireland
2. Nocturia is associated with an increased risk of falls and fractures and nocturnal polyuria is the underlying cause of 76 % of nocturia. Several studies in elderly people show a relationship between the number of voids per night and the risk of falling, which places a huge financial burden on the healthcare system and patients, comparable with the cost of managing dementia
3. In the Notts STP area alone, introduction of Noqdirna in the over 65s, has potential for savings of over £8m and the prevention of 66 falls/fractures each year

Addresses priorities:

- Falls; prevention - self-management - diagnostics and earlier diagnosis - treatment

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Fortrus

Fortrus provides solutions to enable organisations to embrace integrated digital health care. Our UX approach ensures usability and design is key.

David Walliker, Chief Information Officer at Liverpool Women's Hospital commented on a project at the trust:

"The driving force for LWH was not only to reduce the daily costs associated with managing our medical records, whilst ensuring compliance with regulatory guidelines, but also to enable the ability to view a record at any place or point removing the reliance on a single copy, as happens with paper. This formed part of the Doing IT RIGHT strategy (Record Management, Intelligent Working, Greener, Holistic, Technology Led), which the 'Unity' solution provided by Fortrus, enabled the Trust to achieve. The key criteria for the selection of the 'Unity' solution was the acceptance it gained, based upon the overall solution user experience, from the 53 clinicians that participated in the project."

Benefits to Liverpool Women's following the project:

1. Each new project builds towards a defined strategic outcome

2. Clinicians can use additional information to make better diagnosis
3. Comprehensive patient record assembled from fragmented systems
4. Improved patient outcomes and more informed clinical decisions
5. Clinical engagement in UX Design reduces training and adoption time

Addresses priorities:

- Falls – diabetes – respiratory - cardiovascular; prevention - diagnostics and earlier diagnosis - treatment

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Helicon Health Limited

Helicon StrokePrevent empowers people and their clinicians and families to collaborate more effectively to prevent stroke.

Helicon Health Ltd was spun out from University College London and NHS Whittington Health in 2012. It provides Helicon StrokePrevent® - clinical decision support, professional elearning, patient apps, elearning and devices for self-care. Helicon StrokePrevent covers atrial fibrillation, anticoagulation (inc DOACs), hypertension, activity. It's a cloud based solution from NHS N3 and Internet servers available on App stores. It can reduce stroke rate, activate patients, take load off acute and primary care services and save money.

In the East Midlands population of 4.6m people, Helicon's technology working with providers and patients can have an enormous impact:

1. Save 1,000 AF strokes a year (by increased detection, appropriate anticoagulation and self-testing)
2. Save medical costs of £23m a year
3. Reduce number of anticoagulation visits to hospital or GP clinics by 150,000 a year (by patient self-testing of INR)
4. Empower 20,000 patients to self-care, become activated and live healthier lives

Addresses priorities:

- Cardiovascular; prevention - self-management - diagnostic with CE Mark - treatment

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iHealth Labs

iHealth Labs concentrates on providing tele-monitoring and patient management system/solutions to improve healthcare service.

iHealth Labs is the company who invents the world first connected blood pressure monitor in 2009. We are dedicating to develop patient management system based on iHealth connected medical sensor, mobile/web application for improving the service on outpatient. iHealth just launched iHealth NEXT platform to provide hypertension management, diabetes management and population health which is using iHealth innovative algorithm and zero-delay technology for the vital data transformation and transmission. Assists:

1. Patient management
2. Readmission preventative
3. Zero-delay data transmission
4. Modular system

Addresses priorities

- Cardiovascular - diabetes; prevention - self-management – diagnostics and earlier diagnosis

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Ingeus

Ingeus delivers services that make a genuine difference to people's lives. We are a founding member of the B Corp community in the UK.

Ingeus Healthier You, evidence based, structured education program helps people reduce or postpone their risk of developing Type 2 Diabetes.

As a national framework provider of National Diabetes Prevention Programme, we work in partnership with Leicester Diabetes Centre delivering life changing courses in the UK.

Our digital Healthier You increases access via smart phones and tablets.

Ingeus work and health innovations address socio–economic issues of long term condition prevention and management, including mental illness.

1. Engages and activates the patient/person to 'own their health'
2. Reduces risk of developing Type 2 diabetes
3. Improves prevention and management of LTCs
4. Enables digital engagement/consultation

Addresses priorities:

- Cardiovascular – respiratory - diabetes; prevention – self-management - diagnostics and earlier intervention

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Johnson & Johnson

Johnson & Johnson dedicated team who focus on increasing engagement with Stop Smoking services.

- Reducing Smoking Prevalence has been shown to reduce unplanned hospital admissions
- Our case study shows reduced emergency admissions achieved with a robust approach to smoking cessation, including; mail shots to smokers, service advertised on internet and in practice
- Prescribing costs, and surgery appointments also decreased significantly. Hospital admissions costs reduced significantly (2013-14 £1.32million vs 2014-15 £0.68 million)

1. Audit data so show cost reduction to CCG
2. Audit data to show significant savings to GP practices
3. Significant savings in reduction of hospital admissions
4. Strategy has to ensure a 'Gold Standard' referral system with each GP practice

Addresses priorities:

- Respiratory; prevention

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Johnson & Johnson Diabetes Care Companies

Johnson & Johnson Diabetes Care Companies is a cross-company collaboration that has a shared vision of "creating a world without limits" for people with diabetes.

OneTouch VerioFlex and Coloursure technology:
Following interaction with the Colour Range Indicator (CRI), subjects significantly improved their ability to categorize BG results into low, in range, and high glycemic ranges by 27.9% (T2DM) and 27.2% (T1DM) (each P < .001).

OneTouch VerioFlex and OneTouch Reveal mobile app:
88% of Health-care professionals agreed this mobile app could help reinforce treatment recommendations with their patients and 91% agreed along with treatment recommendations, the meter and mobile app together would help patients stay engaged between doctor visits.

Addresses priorities:

- Diabetes; self-management

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NHS Leicestershire Health Informatics Service

NHS LHIS provides IT services and solutions nationwide including mobile apps and internally developed systems to support clinicians and patients.

PRISM
A recent testimonial: “As a GP, having access to PRISM has streamlined referrals. I know I’m sending the patient to the right service with the right information. As we put more resources onto PRISM, I am confident that this will make the life of the busy GP easier, and patient care will benefit as a result. The patient will be seen in the right clinic by the right clinician first time and everyone will benefit.

a. Reduction or elimination of wasteful and unnecessary acute based outpatient appointments
b. Increasing efficiency of care for Long Term Conditions in primary care (particularly related to GP activity)
c. Reduction in waiting times
d. Amount of time saved for clinicians

Young Onset Dementia
The Young Onset Dementia (YOD) information mobile app is presented at time of diagnosis so that in their own time, patients and family members use the guidance to help manage all aspects of their life, signposting them to an array of services and organisations that provide specialised support and information. The app was highly commended in the Innovation to Support Service Development category of Care Coordination Association’s 2016 awards and is **easily transferrable for LTC transformation.**

1. Increasing efficiency of care for Long Term Conditions
2. High level of engagement with an under-represented / unheard group
3. Awards achieved / recognition by nationally / internationally respected individuals or organisations
4. Patients and carers better informed of clinical condition including self-help, access to other services, drugs, side effects, treatments, other patient journeys and experiences and what to expect which enables more informed choices about their own well-being and care pathway

Electroconvulsive therapy
ECT is a controversial subject; the information mobile app allows patients to see how therapy is applied and how long they will spend in the recovery suite, covering side effects of treatment. The app represents significant steps in dispelling myths surrounding ECT, a treatment with high success rates but in decline due to common negative perceptions relating to treatments from the 1950s, supporting both diagnosis and treatment. **The app is easily transferrable for LTC transformation.**

1. Increasing efficiency of care for Long Term Conditions
2. High level of engagement with an under-represented / unheard group
3. Awards achieved / recognition by nationally / internationally respected individuals or organisations
4. Patients and carers better informed of clinical condition including self-help, access to other services, drugs, side effects, treatments, other patient journeys and experiences and what to expect which enables more informed choices about their own well-being and care pathway

Addresses priorities:
- ***PRISM:*** diabetes – respiratory – cardiovascular - falls; focus on diagnosis and early diagnosis – treatment
- ***Young Onset Dementia:*** The app content can be changed from YOD content to all other clinical areas very easily; diagnosis and early diagnosis – treatment – self-management
- **Electroconvulsive therapy:** The app content can be changed for all other clinical areas very easily; diagnosis and early diagnosis – treatment – self-management

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Levstone
Secure, technically advanced UK based mobile app software developer since 1996. All design and development undertaken in-house.

In 2016 Levstone launched on Google Play Store a series a technically advanced, secure, private group, multi-sensor real-time apps (in Nov 2016 we won a Government ‘Innovate UK’ competition). The apps are being used by several thousand families.

The www.trustedwellbeing.com app is designed to join families and health professionals together to help protect vulnerable family members and manage long term ill health.

1. Helps all family members to better care for their vulnerable loved ones. (Reduces the burden on health professionals)

2. Earlier identification of wellbeing concerns allows an intervention before problems escalate (hospital admissions)

3. Improves self-care and healthier lifestyle. Makes it easier for health professionals to give out information (websites, videos) to patients. One click for patients (and family carers) to access. The family and health professionals can see if and when this material is being viewed. Allows family members to encourage and participate in the patient’s management of exercises

4. Proven 24x7 real-time sensors detect activity and mobility. Measure daily movement in the home and outside the home. If family members detect reduced activity – they become more involved in supporting and encouraging mobility

Addresses priorities:
- Diabetes – respiratory – cardiovascular - falls; prevention diagnosis and early diagnosis – treatment

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Leicestershire and Rutland

Diabetes

In 2013, over 3.2 million adults were diagnosed with diabetes, with prevalence rates of 6% and 6.7% in England and Wales respectively. It is estimated that about 90% of adults currently diagnosed with diabetes have type 2 diabetes.

Necessary lifestyle changes, the complexities and possible side effects of therapy make patient education and self-management important aspects of diabetes care. Diabetes care is estimated to account for at least 5% of UK healthcare expenditure, and up to 10% of NHS expenditure.

Community Pharmacy (CP) can be utilised to support management of type 2 diabetes in adults, focusing on patient education, dietary advice, managing cardiovascular risk, managing blood glucose levels, and identifying and managing long term complications in light of the reduced capacity in other healthcare settings, accessibility of CP to follow up with patients and increased cost of managing diabetes and complications.

1. Provide dietary and lifestyle advice including physical activity and weight management

2. Medicines Optimisation to support adherence and understanding of the condition and regime

3. Monitor blood pressure every 1–2 months, and intensify therapy if the person is already on antihypertensive drug treatment, until the blood pressure is consistently below 140/80 mmHg (below 130/80 mmHg if there is kidney, eye or cerebrovascular damage working with GP practice who provide targets

4. Support to achieve the hba1c target and maintain it unless any resulting adverse effects (including hypoglycaemia), or their efforts to achieve their target, impair their quality of life working with GP practice to provide target

5. Support management of Dyslipidemia is a well-recognised and modifiable risk factor that should be identified early to institute aggressive cardiovascular preventive management working with GP practices to provide targets

Minor Ailments Scheme

Community Pharmacy Minor Ailment Scheme (MAS) is a viable NHS service to manage minor ailment conditions. With appropriate controls, it represents better value for money compared to other more expensive NHS environments, including General Practices, Walk-in Centres, Out-of-Hours (OOH) and Emergency Services. The positive contribution that community pharmacy MAS schemes can make to the current workload pressures across General Practice and urgent and emergency care has been recognised in a number of NHS England publications as well as in guidance published by the British Medical Association in January 2015 (Quality first: Managing workload to deliver safe patient care). Future arrangements should build on this 'strong' foundation.

Whilst there is a national service being discussed; the service is only a referral from NHS 111 and no clear guidelines have been set out at this time. A full operational MAS scheme available to patients via either, NHS 111, in-pharmacy or GP referral to increase capacity would support resilience and reduce the burden on urgent care and increase patient access to care.

1. Reduction in cost burden and freeing up capacity/resource in GP Practice, OOH and Urgent Care Services

2. Financial performance – delivery within budget and reduction in cost per consultation vs other settings in primary and secondary care and reduction in appointments in General Practice, OOH and Emergency Departments

3. Stakeholder satisfaction with the scheme – Community Pharmacy staff and Patient Satisfaction

4. Effectively utilise accessibility of Community Pharmacy - Patients may access the scheme across a range of days and times across the week, capitalising on the availability of 100 hour pharmacies in the CCG locality

Addresses priorities:

- Diabetes; self-management and prevention of complications
- Diabetes – respiratory – COPD; treatment and promotion of self-care

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LumiraDX

LumiraDx is a healthcare outcomes company delivering the world's leading solution for care coordination and population health management.

LumiraDx brings together healthcare data from across all venues of care and communicates this information across the systems to allow the right information to be available at the right place and the right time with intuitive applications for both patients and providers. With the addition of wirelessly connected diagnostic devices, patients can manage their conditions in their own home, with the supervision of their healthcare providers, while also using the application to track their progress.

1. Reduces unnecessary acute-based appointments by providing proactive healthcare in the patients' home, with the assistance of analytics to detect when and where clinical help is needed, in real time
2. Increases efficiency of care by connecting the healthcare data across all venues of care and delivering the information to healthcare providers in a clear, concise and longitudinal manner and providing the ability for effortless communication to other healthcare providers and to patients
3. Reduces instances of acute admissions by creating a system that allows for healthcare providers to receive alerts when a patient's metrics show that an early intervention may be needed
4. Allows patients to feel encouraged and comfortable in managing their healthcare; providing greater patient satisfaction and adherence to care plans, which helps to create sustainable behaviour change

Addresses priorities:

- Diabetes – cardiovascular – COPD; treatment – prevention – diagnostics and earlier diagnosis - self-management

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Medtronic - diabetes

The world's largest Medical Technology Company founded in 1949, committed to transforming diabetes care together for greater freedom and better health.

Continuous Glucose Monitoring (CGM) provides key information for people with diabetes to promote self -management and support independent living. Guardian Connect™ has alerts and alarms which protect from dangerous glucose excursions which often result in unwarranted hospital admissions. The user can choose to share their real time glucose data with up to 6 care partners. This can be family and friends for security and peace of mind. The system allows for remote review by HCP reducing the need for outpatient appointments.

1. **Better care closer to home** – promoting diabetes self-management by providing real-time glucose data for the patient to use to better manage their life with diabetes. These insights allow people to be in control of their own condition and have the information to make the right decisions at the right time for them
2. **Money saved to the NHS** – through reduction in hospital admissions, appointments, early discharge and prevention of long term diabetes complications by improving diabetes control
3. **Reduction or elimination of wasteful and unnecessary acute based outpatient appointments** – the HCP can provide remote, timely support and advice by accessing the patients real –time glucose data
4. **Reduction in instances of escalation and emergency acute admissions** - reduction in frequency and severity of hypoglycaemic events which is facilitated by real-time CGM (Guardian Connect™) which offers early alerts and alarms to the user

Addresses priority:

- Diabetes; self-management - treatment

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Medtronic Ltd

10 Therapy Areas, with over 50 conditions treated. 64 million lives impacted in 2016 = 2 people every second. Alleviate pain, restore health and extend life.

Medtronics innovation and service revolves around better patient pathway and utilisation of 2 Key devices. Reveal LINQ™ insertable cardiac monitor (ICM) for diagnosis of Syncope (falls) and Atrial Fibrillation. Optivol to help keep HF Patients out of hospital. The main innovation is Carelink™ which enables patients to be remote monitored from their own home, reducing the need for cardiac outpatient appointments and will alert healthcare professionals to early diagnosis of conditions or decompensation of their Heart Failure, reducing the chances of the patient becoming an emergency cardiology admission.

1. Significantly reduce unnecessary acute based outpatient appointments for Cardiology and time following up patients
2. Save NHS Money
3. Reduce emergency acute admissions
4. Management of the patient's cardiac condition from the comfort of their own home

Addresses priorities:

- Cardiovascular – falls; prevention – diagnostics and earlier diagnosis - treatment

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National Osteoporsis Society

The National Osteoporosis Society is the only UK-wide charity dedicated to improving the prevention and treatment of osteoporosis and fragility fractures.

The Fracture Liaison Service (FLS) model enables secondary fracture prevention by identifying fragility fractures using dedicated case-finding, with assessment and treatment of osteoporosis where appropriate. This model has been replicated across the UK with the support and expertise of the National Osteoporosis Society (NOS). Our team of specialist development managers with clinical and commissioning experience is currently working with over 150 sites (to date) to support new service development, or quality improvement of existing services.

To date, the 9 new FLS commissioned with NOS support (8 new services and one augmented service) represent:

1. FLS provision to an additional cumulative population of nearly three million people
2. More than 1000 hip fractures prevented over five years
3. Gross savings across health, social care, and community services of £17.3m (service costs typically run at less than 40% of the gross benefit)

Addresses priorities:

- Falls; prevention

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Nottingham Community Housing Association

The SMaRT Messenger service has been developed by social housing and care provider Nottingham Community Housing Association and its partners.

SMaRT Messenger is a unique TV based assisted living system, providing cost effective support at home via TV messaging. An internet connected set-top box allows care providers to send wellbeing checks, reminders and individually tailored health related messages direct to the user's TV; they respond using a simple remote control, and can request a support call 24/7. Family and friends can also message through the system. Technological barriers are negated by harnessing familiar, ubiquitous technology.

1. Efficient delivery of care and support in the home for the frail or those with long term conditions
2. Reduction in acute admissions - regular wellbeing checks prevent users reaching crisis point
3. Money saved to NHS through reduced GP appointments / missed appointments (system can be programmed with reminder messages)
4. Winner, 3rd Sector Care Awards 2016 Technology Award

Addresses priorities:

- Falls – diabetes; prevention – self-management

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Philips

Royal Philips is a leading health technology company focused on improving people's health and enabling better outcomes across the health continuum from healthy living and prevention, to diagnosis, treatment and home care.

Self-management

Supported Self-Care programmes using Philips Motiva technology empower patients to actively manage their disease and change their behaviour by providing appropriate coaching and education. A patient facing tablet delivers tailored management programmes. Furthermore, vital sign measurements are recorded through wireless peripherals and when linked to questionnaire responses, intervention rule-driven algorithms set alerts and steer patient management workflows through clinically led hubs. This continuous care approach is effective for patients with COPD, heart failure, diabetes and comorbidities.

1. Up to 32% reduction in emergency admissions and secondary care costs for higher risk patients
2. 55% patients self-report a decrease in healthcare utilisation
3. 90% patients self-report increased control, confidence and ability to cope
4. 79% patients self-report improved health or better health management

Falls
Philips Home Safe Monitoring service that allows monitoring of seniors at home creating a risk status of when seniors are likely to be at risk of hospital transport (A&E). This service has already had success in the USA. HomeSafe combines data from the patient and sensors to create the status so interventions can take place before seniors are admitted to hospital. This also includes 30days warning falls prevention service. Service can include Public Health intervention.

1. Reduced A&E admission – impact on long term health of patients
2. Reduced service utilisation (cost) Health and Social Care
3. Improve service to service users and move to self-management
4. Outcomes based contracting

Addresses priorities:
- Diabetes – respiratory – cardiovascular; self-management
- Falls; prevention – self-management – diagnostics and earlier diagnosis

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PRIMIS

PRIMIS is the leading organisation in extracting knowledge and value from primary care data through our unrivalled understanding of health informatics.

PRIMIS produce effective and practical solutions to help people access, understand and use patient data held on GP IT systems. PRIMIS achieves this through health informatics, clinical expertise plus trusted and established products, services, consultancy and training.

1. Our CHART quality improvement toolkits create highly visual dashboards, summary tables, graphs and patient-level data excel data sheets.
2. Help to optimise the management and care of patients and in case finding activity to establish a more accurate prevalence rate
3. Provides the ability for practices to benchmark themselves securely and anonymously against others both locally and nationally
4. Created on behalf of our NHS sponsors these tools are free for GP practices to use and include comprehensive guidance supported by a helpdesk

Addresses priorities:
- Diabetes – respiratory – cardiovascular; prevention - diagnostics and earlier diagnosis - treatment

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Prospect Diagnostics limited

Prospect Diagnostics Ltd is engaged in the promotion of innovative products that improve clinical outcomes at the ‘Point of Care’.

FebriDx is a rapid, point of care, laminar flow immunoassay that uses a capillary blood sample to identify a clinically significant immune response to viral and/or bacterial acute febrile respiratory infection. By measuring the body's immune response to an acute respiratory infection, FebriDx differentiates colonisation (carrier state) from true systemic infection at the point of care. FebriDx enables clinicians to make precise, personalised choices when considering antibiotic therapy, playing a critical role in moving antibiotic stewardship to the primary care setting.

The test detects elevated levels of two biomarkers; C-reactive protein (CRP), an acute-phase inflammatory protein that is elevated in the presence of bacterial infection; and Myxovirus resistance A (MxA), an intracellular protein that becomes elevated in the presence of acute viral infection. If the capillary blood sample contains elevated levels of MxA, low CRP, or high CRP, above their respective cut-off levels, the appropriate test line will appear in the result window.

FebriDx is intended for use in triaging patients (older than 2 years), presenting within 3 days of acute onset fever (exhibited or reported) and within 7 days of new onset respiratory symptoms consistent with a community-acquired upper respiratory infection.

The FebriDx test is easy to use, disposable, and requires no additional equipment to administer or interpret. The test procedure is performed in less than 2 minutes and results are available in as soon as 15 minutes, allowing the clinician to provide a timely and targeted treatment plan during the initial office visit.

1. Improves clinical management of URTI in Primary Care by differentiating viral from bacterial aetiology in URTI
2. 97% Negative Predictive value for bacterial infection
3. Several threads of cost savings
4. Reduces un necessary prescriptions of antibiotics

Addresses priorities:

- Respiratory (upper tract infections); accurate diagnosis

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Qardio Europe Ltd

Qardio is the award-winning healthcare company that combines a suite of elegant, clinically-validated devices with powerful data analytics, providing healthcare professionals with valuable insights into patient heart health.

Utilising connected wireless Blood pressure monitors within a vanguard site in Hartlepool and Stockton CCG, installation of our Qardio MD portal which uses a customisable library of algorithms running in the cloud, it continuously analysed the data generated by patients and automatically clustered and prioritisded them according to need. This allowed the doctor to quickly focus on those that required attention, 4 out of 30 patients were identified with irregular heartbeat previously undetected who were subsequently put on AF screening.

1. Increase in number of patients diagnosed with a condition
2. Amount of time saved for clinicians
3. High level of engagement with an under-represented / unheard group

Addresses priorities:

- Cardiovascular; diagnostics and earlier diagnosis - self management

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Sanandco Ltd

Sanandco has developed MonitorMe and with our partners Microlife and EMIS proposes to provide a transformational remote monitoring package.

MonitorMe will be provided to those with respiratory and/or cardiovascular disease. MonitorMe captures peripheral capillary oxygen saturation (SpO2), pulse rate, pulse transit time and temperature of a patient in the domestic environment. An automated call captures the data together with responses to a health questionnaire and directs the data to the patient's record. Remote trend analysis by care professional will identify any patients in need of a health intervention.

1. Reduce instances of escalations and emergency acute admissions
2. Increased efficiency in Primary Care
3. Reduced acute based outpatient appointments
4. Paid for by savings generated in the early recognition and treatment of Atrial Fibrillation alone. Reduced admissions saves £2000 per event

Addresses priorities:

- Cardiovascular – respiratory; prevention

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Self Help UK

Leading self-care charity promoting self-help groups and initiatives to change the way people are empowered to take control of their health and wellbeing.

TANDEM Project

Working in Derby to support people isolated due to their LTC including diabetes, heart disease, COPD etc., we have used our experience delivering asset based self-care support for people affected by cancer to develop TANDEM a project designed to support people to participate in local activities and services.

1. Patients feel more supported and use primary and secondary care services less frequently
2. People are less isolated
3. Reduce escalation of LTCs by increasing health literacy and appropriate medicine management and access to services
4. Increase in peer support and sustainable health outcomes

Black and Minority Ethnic communities
Working with BME communities in Nottingham we have successfully developed a Self Help Group approach to self-management programmes for LTCs including diabetes which engages hard to reach patients in diabetes self- management courses which transition into self-help groups. Patients are supported to maintain the healthy changes they have adopted during the course and specialist nurses are able to maintain contact to deliver 'top-up' sessions in a cost effective way.

1. Hard to reach high risk communities engaged in health education and prevention
2. Increased uptake of self-management courses
3. Development of ongoing self-help groups for Asian elders with diabetes provide support and ongoing access to health professionals in community setting
4. Improved health outcomes for at risk groups including improved health literacy and engagement with services

Addresses priorities:
- Cardiovascular - respiratory; prevention - self-management - treatment
- Diabetes; prevention - self-management - treatment - early diagnosis

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Smith and Nephew
A British healthcare company formed over 120 years ago, specialising in the following areas:

- Orthopaedic Reconstruction
- Advanced Wound Management
- Sports Medicine
- Trauma and Extremities

They have UK offices in Hull and Watford (Global office).

We have pioneered the use of Negative Pressure therapy to assist improved wound healing. Our mobile NPWT device is called PICO™ and has demonstrated a clinically significant improvement in healing stalled wounds, such as Diabetes Foot Ulcers (DFU's), Pressure Ulcers, and any surgical incision line within defined high risk patient populations. Our impact on healing DFU's has not only proven clinically effective, but also had a very positive impact on local health resources and healthcare budgets.

1. Improved healing time when used to treat Diabetic Foot Ulcers. The cost to the NHS of caring for chronic wounds is estimated to be in the region of £2–3bn per year (Posnett and Franks, 2007). Some estimates suggest that one in three chronic wounds has remained unhealed for longer than six months (Posnett and Franks, 2007)
2. Improved patient experience and quality of life as a direct result of healing stalled wounds. Research into the experience of patients using NPWT in the home setting has shown that patients generally had a positive response to the device and saw it as an active intervention that was associated with improved wound healing and control of symptoms. This had an impact on patient concordance and quality of life (Moffatt et al, 2011)
3. Reduced burden on local healthcare resources, (e.g. reduced need for district nurse visits, time, wound care dressing changes and GP/Hospital visits). A recent study has shown that using NPWT in the community can be cost-effective. With portable NPWT devices, patients can leave the hospital and receive treatment in the community at an estimated cost of £38.50 per day, compared with the daily cost of a hospital stay at £288. For an average NPWT treatment duration of 20 days, the estimated savings of community care is £4,814 per patient. This also leaves hospital beds free for those who need them (Dowsett et al, 2012)

Addresses priorities:
- Diabetes; prevention - self-management - treatment

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Stroke Association

Stroke Association – we support research into stroke prevention and treatment and provide support for people after stroke.

We have developed a website, My Stroke Guide, to support stroke survivors to achieve their best recovery possible.
People after stroke want information and advice – we provide this through 28 Essential Guides offering information and advice supported by over 200 videos. People feel isolated and alone and we help reduce this through our social pages and forums
We also have games and a goal setting tool.

1. Improved knowledge about stroke reducing the risk of secondary strokes
2. Reduced isolation through the social forums (these are monitored)
3. Practical tips and advice to help overcome challenges thrown up by stroke

Addresses priorities:

- Cardiovascular; self-management

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TBS GB Ltd

TBS GB is a Healthcare Technology Management Company who provide integrated services for Clinical Engineering in the whole field of Medical Technology.

Integrated Care devices were provided to patients at home. The devices included Blood Pressure Monitors and Saturated Percentage Oxygen monitors linked via the internet and GPS. Clinicians were able to observe patients and monitor their treatment plan. This greatly improved efficiency e.g. keeping up to date clinical records, and travel time etc.

1. Decompresses queues in clinical areas such as A&E
2. Constant clinical monitoring of vital signs parameters
3. Efficiency in reducing waste. E.g. avoidance in bed blocking
4. Increased Patient confidence and Patient is at home

Addresses priorities:

- Cardiovascular – respiratory; diagnostic

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Telefonica UK Limited

Telefonica UK Limited trading as O2 in the UK TickerFit and Pzizz. Digital life is life itself, and technology is an essential part of being human. We want to create, protect and boost connections in life so people can choose a world of unlimited possibilities

TickerFit

A unique cloud based application empowering health professionals. Providing personalised lifestyle interventions based on their current health status. Health professionals can prescribe and monitor lifestyle interventions using a web based application and passive monitoring via smartphone or wearable devices. Results are tracked in real-time. Outcomes can be measured and analysed. The benefits of lifestyle interventions are accepted and are easily delivered. TickerFit™ is a unique personalised programme delivered using un-intrusive mobile and web based technologies.

1. Passive Remote Monitoring
2. Early Diagnostics
3. Preventative intervention based on current status
4. Bespoke treatment programme

Pzizz

Poor sleep can be significantly detrimental to health. Three nights of inadequate sleep can dramatically elevate a person's risk of diabetes. Poor sleep is linked to a 58% increased chance of premature death, increased likelihood of Heart Disease, High Blood Pressure, Cancer, Depression and more.

Pzizz induces sleep through the medium of technology. By applying an intelligent combination of voiceover, sound effects, music and binaural beats, our patented algorithm is clinically proven to put people to sleep.

1. Relax
2. Sleep
3. Energise
4. Personalise

Addresses priorities:

- Cardiovascular; diagnostics and earlier diagnosis – prevention – self-management
- Diabetes - respiratory – cardiovascular; prevention – self-management - treatment

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Totally Health

We provide bespoke solutions to promote health and wellbeing by driving innovation and empowering individuals to self-care and reduce need for NHS resources.

The vision is to put individuals at the centre of the decision making about their own care, enabling them to have more control over their condition. The service is designed for individuals diagnosed with one or more long term conditions who are high users of healthcare resources. We implement telephone based health coaching service across primary care and upon discharge. It is delivered by experienced clinicians and designed to empower patients to pro-actively manage their diagnosed conditions.

The project has seen significant results especially in comparison with a control group that did not receive the health coaching:

1. 82% reduction in practice appointments; control group 250% increase
2. 42% reduction in non-primary care contacts; control group 118% increase
3. 57% improvement in patients managing their diabetes control (HbA1c test)
4. Return on Investment for each £1000 spent, up to £5000 was saved

Addresses priorities:

- Cardiovascular - diabetes - respiratory – cardiovascular; prevention – self-management

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TouchApp Limited

TouchApp Limited is a top grade mobile and web development company focus in the area of life science.

We combined credible medical research knowledge and cutting-edge mobile app technology to create a personalised platform (Sugar Wise) to help diabetes sufferers to safely manage their conditions and make their daily routines less time-consuming, frustrating and hazardous. Sugar Wise is here to help you make the best decisions tailored to individual circumstances directly on your smart phone and empowers diabetes sufferers to make smart choices anywhere, anytime, and reaps prolonged health benefits.

1. Improve the quality of life of diabetes sufferers
2. Reduction or elimination of wasteful and unnecessary acute based outpatient appointments
3. Reduce instances of escalation and emergency acute admissions
4. Money saved to the NHS

Addresses priorities:

- Diabetes; self-management - prevention

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Vision360

Vision360 develops, operates and manages telehealth and telecare services, including V360 Toolkit and V360 Connect, which address respiratory illness and frailty.

V360 Connect

A new Internet of Things (ioT) development led by Vision360 and Arqiva, a leading communication infrastructure provider in the UK, co-funded by government and the NHS through the national NHS Innovation Testbed scheme. The product enables low cost monitoring of daily living habits for those suffering from frailty and/or dementia in order to reduce fall risk and identify falls as quickly as possible.

1. Admission avoidance
2. Early discharge support
3. Improved quality of life for patients and informal carers
4. Operational cost savings

V360 Toolkit

A cloud-based, low-cost, telehealth platform, designed jointly with CLCH and co-funded by the DOH, that supports patients with long term conditions such as CHF and COPD and those at risk of developing such conditions. The service facilitates vital signs monitoring, symptoms feedback, video-based patient information/instruction (e.g. inhaler technique) and real-time clinician-patient live video consultation. The system can integrate with third party EHR systems using a variety of standards-based interfaces.

1. Admission avoidance
2. Early discharge support
3. Improved self-management and patient satisfaction
4. Operational cost savings

Addresses priorities:

- Falls; self-management – prevention
- Respiratory – cardiovascular; self-management – prevention

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Value Stream Experts

Value Stream Experts is a highly experienced, healthcare specialised, Lean Management team with unprecedented, sustainable results within the NHS.

What: Increased the efficiency of care via our innovative capacity management and optimisation programme. This involved using visual management and capacity usage optimisation via cross discipline root problem solving.
Who: Knowledge transfer took place with nursing, medical, and administrative staff to ensure sustainability.
Why: increasing demand for services combined with lower budgets resulting in increased patient waiting time and additional costs for extra clinics.
Where: West Middx Hospital and Dudley Group Hospitals based acute trust, outpatients departments

1. Reduction in waiting times for patients
2. Increase in number of patients accessing care
3. Money saved to the NHS (21% financial performance impact in both cases)
4. Amount of time saved for clinicians (10% time saving in both cases - reduction in additional clinics)

Addresses priorities:

- Falls – diabetes – cardiovascular - respiratory; treatment

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Igniting **Innovation**

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