Improving outcomes for patients with Learning Disabilities through better remote management of health and well-being.

SBRI Healthcare NHS England competition for development contracts

May 2014

Summary

A new national Small Business Research Initiative (SBRI) Healthcare competition is being launched by NHS England in partnership with the Academic Health Science Networks (AHSNs) to find innovative new products and services. The projects will be selected primarily on their potential value to the health service and on the improved outcomes delivered for patients with learning disabilities.

The competition is open to single companies or organisations from the private, public and third sectors who will ultimately be capable of supplying the NHS and its delivery partners with the resulting product or service on a commercial basis. The competition will run in two phases:

- Phase 1 is intended to show the technical feasibility of the proposed concept. The development contracts placed will be for a maximum of 6 months and up to £100,000 (inc. VAT) per project
- Phase 2 contracts are intended to develop and evaluate prototypes or demonstration units from the more promising technologies in Phase 1. Only those projects that have completed Phase 1 successfully will be eligible for Phase 2.

Developments will be 100% funded and suppliers for each project will be selected by an open competition process and retain the intellectual property rights (IPR) generated from the project, with certain rights of use retained by the NHS.

This competition theme focuses on the challenge of finding innovative new products and services that will help improve the physical and mental health outcomes of people with learning disabilities by providing remote care opportunities in a way that existing technology and services don't facilitate and is led by the Yorkshire & Humber Academic Health Science Network.

The competition opens on 19 May 2014. The deadline for applications is 1200hrs on 10 July 2014.

Background

Evidence and business cases exist for procurement of telehealth, telecoaching and telecare, particularly for COPD, CHF and type 2 Diabetes. Whilst the evidence based is mixed, being largely dependent upon the quality of implementation, there is no doubt that these technologies can reduce mortality, based on (but not exclusively) the Whole System Demonstrator Programme.

The evidence base and business cases for people outside these groups – e.g. those with learning disability (LD) – is, in contrast, relatively scant. This programme aims to address this challenge; to develop new technologies and service frameworks and build on the philosophy behind the Assisted Living Innovation Platform dallas programme, in that services and technology will require development of economies of scale, integrated services and interoperability.

It is estimated that in England 1,191,000 people have a learning disability. This includes 905,000 adults aged 18+ (530,000 men and 375,000 women)[1].

People with learning disabilities have a much greater propensity to develop health problems - both physical and mental. Between 25% and 40% of people with learning disabilities also suffer from mental health

[1] Source: People with Learning Disabilities in England 2011

problems[2]. This group is also at increased risk of premature death, less likely to receive regular health checks, and more likely to have undiagnosed long term conditions. People with LD and complex needs often find it difficult to describe symptoms, and as a result some conditions, often serious, (e.g. hypertension, diabetes, heart disease, cancer) can be undiagnosed or poorly managed[3]. There is also evidence to suggest that people with LD also have reduced access to generic preventative screening and health promotion procedures, such as breast or cervical screening. Improving diagnosis using communications aids technology is a recognised need both for the individuals concerned and their carers, and for clinicians.

In addition to difficulties in access to diagnosis, there is evidence to suggest that access to care is challenging for people with LD. Studies on health services utilized by people with learning disabilities have concluded that substantial sums are expended on caring for people with LD (over £2bn), but relatively miniscule amounts on adaptations and equipment (£7.1m) to facilitate independence of care access and use[4].

Good practise in the use of technology to improve outcomes for people with learning disability exists, for example, combined telecare and video support for 'virtual visiting' assisted with reduction of 24 hour support to enable service users to be alone and gain more confidence, whilst providing significant savings against budgets.

Anecdotal evidence also suggests people with learning disability are increasingly users of social media, whereas they may be socially excluded, they are digitally included. Integration of and interoperability with telecare, telehealth and social media could be explored as a means to improve wellness and lifestyle choices.

Challenges

Developments funded under this initiative should have at their core user centred design and the ability to be supported by those who will procure and use services. It should be noted that pilots, that are rarely sustainable, are not required; the requirement is for scalable services and technology that can be built up in a phased approach, utilising action learning. Applicants will accordingly need to consider working with commissioners on service re-design, returns on investment and describing the business model to be deployed.

Integrated services will require better interoperability at a system level and not just of telecare/telehealth and videoconferencing devices (which is already achievable, if not available commercially). Use of clients/carers own devices should be considered (bring your own device – BYOD).

Topics we would like to see investigated include:

1. Improved access to diagnosis and care

Flexible products and services that use technology to support individuals with learning disabilities and their carers to live both independently and safely by monitoring health and well-being status, providing advice

[2] http://www.learningdisabilities.org.uk/help-information/Learning-Disability-Statistics-/187705/?view=Standard
[3] Ouellette-Kuntz et al 2004;and "Confidential Inquiry into Premature Deaths of People with a Learning Disability" (CIPOLD) http://www.bris.ac.uk/cipold/
[4] Emmerson (2010) in Information collected by the Information Centre for Health and Social Care

on self-management and enabling health and care staff to provide appropriate and timely interventions. These products and services will improve the ability of people with learning disabilities, in collaboration with carers, where appropriate, to self-care and self-manage, reducing the disparity in health outcomes for those with learning disabilities and changing the need for traditional care packages and the direct costs associated with that.

- Screening tools and monitoring devices that enable more predictive and earlier diagnosis, and can identify a change in condition enabling early intervention;
- Educational tools that can help people associate changes in their health and well-being with associated behaviours;
- Technology developments including improved indoor location, seamless with outdoor location; body wearable devices and textiles;
- Personally held health records tailored to the LD population that are linked to an electronic health record via communication tools that enable information about health to be shared securely online, put people in touch with others in similar positions, or keep people in touch with healthcare professionals;
- Tools e.g. mobile apps that can make health and care services more accessible and offer a less stigmatising way of accessing support.

2. Tools that help people with learning disabilities fulfil their carer roles

Many older people with learning disabilities live with their families and are growing older together and face considerable challenges as their family member's age. Caring roles within the family can change as parents become frailer and the son or daughter with a learning disability takes on a greater caring role. This is often called mutual caring and highlights the interdependence of these families. It also highlights that more people with learning disabilities are becoming carers in their own right and need support in their caring role. These families need support to continue to care and we are interested in technologies and service solutions that support this[5].

This competition will support the goals and aspirations of NHS England's developing Technology Enabled Care Services (TECS) policy. TEC's ambition is about transforming how health and care is delivered, building services for people with, or at risk of, developing long term conditions, supported with appropriate technology. Applicants should be aware of, and build on the development of TECS.

Applicants should also be aware of the progress in interoperability and integration of health, care and lifestyles coming from the Delivering Assisted Living Lifestyles at Scale (dallas) initiative[6]. Dallas is premised on the notion that there have been too many pilots in the assisted living area, that there needed to be a broader approach than just looking at the statutory sector and those with chronic conditions; there needed to be a significant push around interoperability and that it needed to be person centred around lifestyles.

[5] http://www.bild.org.uk/information/ageingwell/olderfamilies/

[6] https://connect.innovateuk.org/en/web/dallas

Key policy documents

Whole System Demonstrator results:

- http://www.kingsfund.org.uk/events/third-annual-international-congress-telehealth-and-telecare?gclid=CJ2cq_P0n7kCFTPItAod434A3Q
- http://3millionlives.co.uk/bmj-whole-system-demonstrator-paper-2
- http://www.pulsetoday.co.uk/views/opinion/telehealth-gives-patients-the-chance-to-take-more-control-over-their-care/20002610.article

3millionlives:

- http://3millionlives.co.uk/about-3ml#3millionlives_enabling_change_to_benefit_individuals

Assisted living Innovation Platform, dallas and i-focus:

- https://connect.innovateuk.org/web/assisted-living-innovation-platform-alip/document-library
- https://connect.innovateuk.org/web/dallas/overview
- http://ifocus-dallas.com/pub/

Learning Disabilities:

- People with Learning Difficulties in England 2010. Emerson et al. More recently published as People with Learning Disabilities:
    - http://www.improvinghealthandlives.org.uk/publications/1185/People_with_Learning_Disabilities_in_England_2012
    - http://www.improvinghealthandlives.org.uk/publications/1223/Improving_the_health_and_wellbeing_of_people_with_learning_disabilities._Guidance_for_social_care_providers_and_commissioners_(to_support_the_implementation_of_the_health_charter)
    - http://www.improvinghealthandlives.org.uk/securefiles/140513_1109//RCGP%20LD%20Commissioning%20Guide%202013%20revised%20.pdf
    - http://www.improvinghealthandlives.org.uk/securefiles/140513_1107//RA-HealthchecksPHE-8%201%2014MDed%28a%29%20final-1.pdf
- A place I call home: Winterbourne View Joint Improvement Programme: http://www.local.gov.uk/place-i-call-home
- Confidential Inquiry into Premature Deaths of People with Learning Disability (CIPOLD) Final Report (2013): http://www.bris.ac.uk/cipold/
- Sandwell Borough Council Presentations at Kings Fund International Congress on Telecare and telehealth July 2013: http://kingsfund.chtah.com/a/hBR1q$-B7R$KDB8zuroDoZYpxt7/highlightsKyle

Application process

This competition is part of the Small Business Research Initiative (SBRI) programme which aims to bring novel solutions to Government departments' issues by engaging with innovative companies that would not be reached in other ways:

- It enables Government departments and public sector agencies to procure new technologies faster and with managed risk;
- It provides vital funding for a critical stage of technology development through demonstration and trial – especially for early-stage companies.

The SBRI scheme is particularly suited to small and medium-sized businesses, as the contracts are of relatively small value and operate on short timescales for Government departments.

It is an opportunity for new companies to engage a public sector customer pre-procurement. The intellectual property rights are retained by the company, with certain rights of use retained by the NHS and Department of Health.

The competition is designed to show the technical feasibility of the proposed concept, and the Phase 1 feasibility contracts placed will be for a maximum of 6 months and up to £100,000 (incl. VAT) per project. It is envisaged that a competition for Phase 2 Development contracts will be run during 2015.

The application process is managed by the Yorkshire & Humber Academic Health Science. All applications should be made using the application forms which can be accessed through the website www.sbrihealthcare.co.uk.

Briefing events for businesses interested in finding out more about the competition will be held on 03 (Birmingham) and 09 June (Daresbury, Cheshire) 2014. Please check the website for confirmation of venues and to register attendance.

Please complete your forms using the online application process and submit them by 1200hrs on 10 July 2014.

Key dates

Competition launch	14 May 2014
Briefing events	03 and 09 June 2014
Deadline for applications	Noon 10 July 2014
Assessment	August – September 2014
Contracts awarded	October 2014

More information

For more information on this competition, visit:
www.sbrihealthcare.co.uk

For any enquiries,e-mail:
sbrienquiries@hee.co.uk

For more information about the SBRI programme, visit:
www.innovateuk.org/SBRI

The SBRI Healthcare programme is directed by the Eastern Academic Health Science Network on behalf of NHS England and managed by Health Enterprise East.