



Better outcomes for people with Diabetes

SBRI Healthcare NHS England competition for development contracts

September 2013



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 (AHSN's) 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.

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 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.

Successful management of diabetes requires an interactive and on-going approach to health care that could easily be facilitated by additional technological resource. The focus of this competition is on technological approaches that can impact positively on diabetes care. Of interest and importance to this theme is the recognition and consideration of co-morbidities associated with diagnosis of a long term condition, in conjunction with supporting personalised care planning for treating not only directly but also non-directly related conditions affecting those patients.

The competition opens on 16th September 2013. The deadline for applications is 1200hrs on 31st October 2013.

Background

The Diabetes UK State of the Nation¹ 2012 report notes that diabetes is a major public health problem accounting for 10% of NHS spending. The number of people diagnosed with diabetes in England increased by 25% to 2.5 million between 2006 and 2011. During this period the number of people who have developed complications as a result of their diabetes has also increased. Diabetes is now the biggest single cause of amputation, stroke, blindness, and end stage kidney failure in the population and causes an estimated 24,000 excess deaths per year, half of which are due to cardiovascular disease. The report also estimates that a further 850,000 people have diabetes without realising it, and are therefore not receiving care or treatment for their illness.

Diabetes is a complex and heterogeneous disorder, affecting many of the body systems. There are several subtypes of diabetes- the most prevalent being Type 1 Diabetes (T1D), Type 2 Diabetes (T2D) and Gestational Diabetes. Type 1 Diabetes is caused by autoimmune destruction of the insulin secreting cells in the pancreas, resulting in absolute insulin deficiency. This is treated with insulin administration and adapting the insulin treatment to fit with the individuals lifestyle. Type 2 Diabetes is a progressive

¹Diabetes UK (2012). *State of the Nation 2012* [online] Available from: <http://www.diabetes.org.uk/Documents/Reports/State-of-the-Nation-2012.pdf> (accessed 15th August 2013)

condition brought about by a combination of insulin resistance and insulin deficiency. It is closely associated with obesity and hence management is underpinned by behavioural and lifestyle changes. Pharmacological treatment is initially with oral agents, but this is likely to progress to injectable therapies including insulin. Annual screening for diabetes-related health problems may detect other associated conditions requiring intervention such as diabetic eye and kidney disease.

It is known that there is huge variation in on-going care for people who have diabetes. The National Diabetes Audit² shows that the number of people who received all nine of their recommended annual health checks in 2011 ranged from 15.9% to 71.2%. This variability is often a consequence of poor utilisation of resources, and can have a negative effect on the clinical outcomes, putting people with diabetes at greater risk of developing complications as well as lowering their quality of life and increasing requirement for expensive specialist care. Effective integrated care is recognised to be a key challenge in overcoming these problems³.

Current situation

As with any long term condition, successful diabetes management requires engagement from both skilled and knowledgeable health care professionals (HCPs) and the individual with diabetes. Whilst primary and community teams provide care to the majority of people with diabetes, specialist teams are usually required to provide care in pregnancy, advanced kidney impairment, T1D, young adult patients, those with foot problems and inpatient care. Other services complement these, including diabetes eye screening programmes and community podiatry services. Teams providing care to people with diabetes should be seamlessly integrated and able to communicate with one another effectively. The effective multidisciplinary team of HCPs is responsible for:

- Developing effective and long-term relationships with people with diabetes and ensuring they remain motivated in the long term
- Engaging with people with diabetes and providing an initial structured education programme for people newly diagnosed with diabetes
- Provide on-going education to empower people with diabetes
- Encouraging people with diabetes to undergo a full annual health check and follow up on any diabetes related health problems
- Collaborative care planning through personalised interpretation of results and development of goals with people with diabetes
- Providing advice on lifestyle and behaviour changes as well as optimisation of medication
- Screening for and management of complications of diabetes
- Avoiding emergency diabetes related admissions
- Ensuring a safe discharge/ transfer of care from a hospital admission to primary care

² National Diabetes Audit (2011). *National Diabetes Audit 2010-2011 Report 1: care processes and treatment targets* [online] Available from: <https://catalogue.ic.nhs.uk/publications/clinical/diabetes/nati-diab-audi-10-11/nati-diab-audi-10-11-care-proc-rep-V4.pdf>

³ NHS Diabetes (2013). *Best practice for Commissioning Diabetes Services – An Integrated Care Framework* [online] Available from: <https://www.diabetes.org.uk/Documents/Position%20statements/best-practice-commissioning-diabetes-services-integrated-framework-0313.pdf>

- Ensuring continued professional education

People with diabetes will only be in contact with a HCP for a limited period of time in a given year, and are required to self-manage effectively at other times with recourse to a HCP when necessary. Effective and timely access to HCPs may be promoted through a variety of means including e-consultations and other technologies.

Effective self-management requires people with diabetes to have knowledge and understanding of their own condition, which may include giving them better access to their test results. Self-management strategies also need to facilitate the opportunity for developing a more equal relationship between the person with diabetes and the HCPs if true self management and empowerment is to be developed. This can be achieved through collaborative care planning⁴, a process whereby people with diabetes set their own goals supported by an informed and engaged HCP.

Challenge

The focus of this competition is on technological approaches that can impact positively on the following areas in diabetes care:

1. Lifestyle and condition management

Solutions to facilitate lifestyle management, enhance self-management, empowerment and improved condition management for people with diabetes

2. Reducing routine HCP contact

Solutions that reduce the need for routine direct contact with health care professionals without adversely affecting quality of care

3. Information transfer

Applications and communications tools designed to facilitate planning, implementation and transfer of information between people with diabetes and providers of care

4. Early detection

Solutions to support the early detection and prevention of complications in people with diabetes

⁴ Clinical Innovation and Research Centre (Royal College of General Practitioners) (2011). Care Planning; Improving the Lives Of People With Long Term Conditions [online] Available from: <http://www.rcgp.org.uk/clinical-and-research/clinical-resources/~media/Files/CIRC/Cancer/Improving%20the%20Lives%20of%20people%20with%20LTC%20-%202012%2005%2009.ashx>

Key policy documents

Report	Type	Date of Publication
State of the Nation	Diabetes UK	2012
Diabetes in pregnancy: management of diabetes and its complications from pre-conception to the postnatal period	NICE, CG63	March 2008
Diabetes in adults	NICE, QS6	March 2011
Type 1 diabetes	NICE, CG15	July 2004
Diabetic foot problems – inpatient management	NICE, CG119	March 2011
Diabetes – insulin pump therapy	NICE, TA151	July 2008
Type 2 diabetes: the management of type 2 diabetes	NICE, CG66, partially updated by CG87	May 2008
Antenatal care	NICE, CG62	March 2008
Diabetes (type 1 and 2) – patient education models	NICE, TA60	
BMI and waist circumference – black, Asian and minority ethnic groups	NICE, PH46	July 2013
Preventing type 2 diabetes – risk identification and interventions for individuals at high risk	NICE, PH38	July 2012
Preventing type 2 diabetes – population and community interventions	NICE, PH35	May 2011

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 in 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 (inc. VAT) per project. It is envisaged that a competition for Phase 2 Development contracts will be run during 2014.

The application process is managed on behalf of NHS England by the Eastern Academic Health Science Network through its delivery agent Health Enterprise East. 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 the 24th September (Nottingham), the 30th of September (London) and the 2nd of October (North West). 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 the 31st October 2013.

Key dates

Competition launch	16 th September 2013
Briefing events	24 th & 30 th Sept, 2 nd Oct 2013
Deadline for applications	1200hrs 31 st October 2013
Assessment	November 2013
Contracts awarded	February 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



www.sbrihealthcare.co.uk



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