

**Information produced in support of the issuing of a Prior
Information Notice for the supply of a Remote Telemonitoring
Service to Northern Ireland Health & Social Care Services**

1. Introduction

- 1.1 Health & social care services in Northern Ireland are going through a substantial period of service reform and modernization and organizational re-structuring.
- 1.2 Underpinning this change process is a desire to improve the health and well-being of the population, to make services more responsive to the needs of patients and to ensure that services are delivered at optimum efficiency.
- 1.3 The Department of Health, Social Services and Public Safety wish to exploit the potential of new technologies in achieving these aims.

2. About the European Centre for Connected Health

- 2.1 The European Centre for Connected Health (ECCH/the Centre), launched by the Minister for Health, Michael McGimpsey in January 2008, has been established to promote improvements in patient care through the use of technology in health & social care and to fast track and promote the scale application of new products and innovative processes in the delivery of health & social services..
- 2.2 The primary purpose of the Centre is to improve the patient and client experience, providing for better quality and more effective care. By supporting the more efficient delivery of health and care services, it will also enable the care system to better respond to the future needs of the population.

- 2.3 The introduction of healthcare technology to effectively manage issues associated with the changing demographic profile such as increasing chronic disease and an increasing need for social care, has the potential to greatly improve the quality, sustainability and cost efficiency of service provision.
- 2.4 The first priority for the Centre is therefore to secure the implementation of a remote telemonitoring service for people with severe chronic disease- congestive heart failure, diabetes, and COPD.

3. Strategic context for the development of Case Management & Remote Monitoring in Northern Ireland

- 3.1 The demographics of Western Europe show an almost exponential predicted increase in the elderly population in the next 20 years. Increasing longevity will lead to a significant increase in chronic diseases which in turn will place additional pressures on health and social care systems across Europe. In light of this increased demand, existing approaches to care are unlikely to meet public expectations about the quality and accessibility of services. New ways of working will be required. Northern Ireland's predicted population increase of the over 75's and 85s is steeper than that predicted for the rest of the UK, adding to cost pressures as it is unlikely that the health budget will be adjusted accordingly. This means that to provide high quality care in a sustainable way in an environment of significantly increasing demand and constrained resource, a new system must be devised to monitor chronic illnesses, providing better care to patients and reducing both hospital and nursing home admission.
- 3.2 Remote monitoring (Telemonitoring) is a clinical practice that involves remotely monitoring patients who are not at the same location as the health care provider. In general, a patient will have a number of monitoring devices at home, and these

devices will transmit information on people's vital signs via telephone or wirelessly to the remote monitoring service provider and if necessary to their health care provider. Telemonitoring is therefore a convenient way for patients to avoid travel and to perform some of the more basic work of healthcare for themselves and for health care professionals to look after vulnerable people without the need for frequent face to face consultations unless the need for these is clinically demonstrated.

3.3 In developing its approach to the delivery of remote monitoring the Centre has paid particular attention to a number of important factors which has influenced its plans. These factors are explained below

- The failure of health and social care systems across Europe to adopt these new approaches to any degree of scale has not to do with the capability of the underpinning technology, but rather the readiness and capacity of health and social care systems to embrace the deployment of the technologies.
- Although the implementation of small scale pilots can be achieved reasonably easily, the implementation of a scale application necessitates a much more complex, whole systems approach which must be supported by appropriate, robust governance systems which are fully integrated into the operational processes and protocols used by the existing service in delivering care.

3.4 The introduction of new approaches to care, given that individual clinicians will be taking personal responsibility for the care provided to patients, must have the full support and commitment of the clinical professions. To that end the European Centre has been engaged in a detailed consultation exercise with local care professionals and managers over the last few months about the detailed operation of the remote monitoring service. There is considerable commitment and

enthusiasm for the adoption of the new approaches across the NI health and social care economy. The Centre is fully committed to delivering Northern Ireland's remote monitoring service by working in close collaboration and partnership with all relevant organisations.

4. Overview of the service to be procured

- 4.1 The aim is to put in place a system of remote monitoring which is universally available throughout the region for those patients with complex long term conditions where they live. The service will be subject to regionally agreed parameters, but will afford flexibility in its detail so that it is appropriately integrated into local systems of care. One or more providers may be involved in delivering the service
- 4.2 To a large extent the remote monitoring service will exist to support the case management of patients with chronic disease. It will initially focus on heart failure, COPD, and diabetes and the target is to secure access for some 5000 patients with these conditions by 2011. A large number of the selected patients will suffer from more than one condition; a significant proportion will suffer from heart failure. Clinical need will determine the length of time for which individuals will need to be placed on the remote monitoring service
- 4.3 Whilst the immediate procurement priority is to introduce a remote monitoring service for heart failure, COPD and diabetes, it is anticipated that over time the concept will be further applied to patients with other conditions such as stroke, palliative care, cancer treatment and other neurological diseases. The centre would wish to ensure that the overall approach adopted to remote monitoring in Northern Ireland can be successfully adapted to meet such emerging needs.
- 4.4 Patients and clients accessing the service will be identified by a variety of methodologies appropriate to each disease area. Such methodologies will identify patients:

- Who are frequent users of hospital based services and whose care will benefit from home monitoring
- Whose condition is deteriorating and whose risk of hospital admission may be reduced by intensive time-limited home monitoring
- Whose care worker identifies that their health and well being may be improved by a period of intensive home monitoring, or
- Whose discharge from hospital could be facilitated by access to the service

4.5 At this stage we envisage that the service provider(s) will be responsible for:

- the provision, installation and maintenance of the necessary equipment in (and removal from) the patient's home
- training of individuals and carers in its use
- training of HSC staff
- the collection, retention, analysis (including the triggering of alerts concerning the condition of individual patients) and forwarding of the information on vital signs to the local HSC system
- the transmission of data on patients being remotely monitored to the health and social care data warehouse administered by the DHSSPS Directorate of Information Systems
- ensuring systems meet patient confidentiality requirements

All data collected through the remote monitoring service will be the property of the NI health and social care system.

4.6 Regional parameters will be established for each disease area, and within those norms, specific tolerances will be set for

individuals by their clinicians according to their needs. The system should provide for those patients whose clinical readings lie outside their specified parameters to be identified on a daily basis (in the morning), thus enabling contact to be made with the individual by a health professional who will discuss their readings and offer appropriate advice. Whether a triage service should form part of the service to be procured is under consideration.

4.7 The parameters that the remote monitoring service would be expected to monitor and measure have not yet been finalised but could include:

- Heart failure – daily monitoring of weight, blood pressure, O2 levels measured by pulse oximetry
- COPD – O2 levels, symptoms and inhaler use.
- Diabetes – serial measurements of blood sugar and change of insulin dosage can be monitored.

It is also expected that these measurements would be supported by qualitative responses to a series of validated questions. In addition to the daily information being available it is anticipated that the service would be capable of producing a range of reports over time

4.8 Where clinically indicated, contact with the patients health and social care provider will be made for further intervention as necessary.

4.9 The overriding aim of the system will be to improve the quality of care to patients and through that to improve the quality of their lives. Specifically the initiative aims to:

- Improve quality of care by making services more responsive and accessible, without the need to travel;
- Empowering patients making them more active in managing their own condition;
- Provide health professionals with better more timely information to enable them to look after vulnerable individuals in the most appropriate way.

It will therefore be patient centred rather than technology driven with an emphasis on user friendly operation.

5. Approach to procurement

- 5.1 The Centre will lead the procurement process on behalf of and in partnership with the five Health & Social Care Trusts and four Health and Social Services Boards in Northern Ireland.
- 5.2 At this stage it is envisaged that the procurement approach adopted will be one of competitive dialogue with potential providers being invited to respond and engage with the Centre on how they would propose to meet the requirements of the service which will be specified in an Output Based Specification (OBS).
- 5.3 In developing the OBS, the Centre wishes to have the opportunity to take into account views from the industry. To facilitate this, potential providers are invited to respond to the issuing of this Prior Information Notice by completing and submitting the online [provider response form](#).
- 5.4 Subject to the number of providers registering an interest, the Centre will convene a supplier briefing day(s). Providers interested in attending a supplier briefing day are requested to submit a response via the online form by Friday 13 June 2008.
- 5.5 In broad terms, it is anticipated that the formal procurement process will commence during the summer of 2008 and that award of contract(s) will be made later in the current financial year, enabling service commencement early in 2009.