

Telecare Factsheet: Telehealth 24 June 2008

INTRODUCTION

This fact sheet is based upon presentations and discussions that took place at a National Telecare Programme workshop entitled "Telehealth". This was held at the Dementia Services Development Centre at the University of Stirling on 24 June 2008. The fact sheet is based on notes taken by the writer during the workshop and does not represent directly the views of the presenters or individual participants.

The workshop is the fifth in a series of events sponsored by the Joint Improvement Team and the Chartered Institute of Housing in Scotland, which aim to support partnerships in the implementation of their local telecare programmes.

BACKGROUND

Up until very recently, telehealth and telecare developments have been taken forward within different professional environments and have focused on different parts of the wider health and social care system. However, there is growing recognition of the benefits of linking these together more effectively.

This workshop aimed to brief practitioners involved in mainly local telecare applications of what is happening around telehealth developments and promote opportunities for closer working and joining up of these important strategic agendas.

TELEHEALTH DEVELOPMENTS IN ENGLAND

The Telecare Learning Network was delighted to welcome Dr Simon Brownsell from CSIP and Sheffield University who provided an overview of how some telehealth initiatives are progressing in England, including the recently launched "Whole System Demonstrators" (simon.brownsell@dh.gsi.gov.uk).

Simon acknowledged from the outset that there are several different definitions around, and recommended not to get hung up on this. Generally developments are occurring across four broad areas:

- Assistive Technology.
- Telehealth.
- Telecare.
- e-Health.

Simon's focus today would be on 'improvements in health delivery using information and communication technologies'. He advised of the opportunities which exist for technology-enabled service redesign, reflected by current high activity levels, making reference to the multitude of reports from mainly overseas studies. These provide eye-catching headlines around the benefits of Telehealth and have consequently caught the imagination of many and promoted lots of interest. Potential benefits have been identified for users in terms of quality of life and maximising health outcomes, and benefits for the wider system in reducing overall health costs.

Policy

Similar to the situation in Scotland, Simon summarised the growing policy framework in England supporting the use of technology in the delivery of services. Telecare is appearing as a common reference in key documents and there is evidence of a huge momentum shift of policy to support innovation (*Ref. 1*). Some elements of this are:

- The growing focus on preventative services with earlier intervention, promoting the transfer of finance from acute care to community ('Our Health, Our Care, Our Say' – Jan 2006).
- The need for person centred services, with more choice and influence from users/carers.
- The recognition of the important role telecare can play in service redesign (Putting People First – Dec 2007 – "telecare integral not marginal").

Examples from England

Simon then gave an absorbing overview of the progress being made in England. He advised that the Commission for Social Care Inspection (CSCI) monitors the level of activity around telecare facilitated by the £80m Preventative Technology Grant (PTG).

- The 2006/7 figures identified 83,742 'new users' of telecare, with further increased coverage anticipated for 2008.
- In April 2008, NHS PASA identified that £45m in sales had been undertaken to date through the national telecare framework.

Recently, five events have been held across England to present on the lessons learnt and share knowledge from the PTG – 'Outcomes from Telecare and Advance Assistive Technology'. Simon recommended viewing the CSIP website to see the presentations from these events, as this provides a more detailed summary of the current situation (*Ref. 2*). Local authority profiles for telecare services are also on the website, showing who is doing what and helping people to move towards benchmarking (*Ref. 3*).

He also advised that a number of innovative approaches are being pursued. For example, London authorities are involved in a poster campaign, advertising one phone number to access appropriate area based advice on telecare services. They have also negotiated free advertising to get the message out.

Moving specifically on to telehealth, there are around 30 areas in England actively involved in progressing developments. For example:

- A video is available showing a Heart Patient PDA system being used in Barnsley for around 40 people, with this being increased by a further 100 units. This highlights the benefits of closer relationships between patients and providers and gives a strong message about patient empowerment.

- Birmingham Own Health is a telephone-based support service for people with long-term conditions involving 2 PCTs, and NHS direct. They are aiming to move from 2,000 people supported up to 27,000 (Ref. 4).
- In Bradford, around 5,000 people with COPD receive automated phone messages advising of poor weather forecasts from the Met Office.

There is a lot going on, with a number of funding streams being used to support developments in addition to the PTG and Whole System Demonstrator Funding, including:

- Section 64 grants from DoH to the third sector to build capacity from another direction.
- Research council grants for LTC & Public Health, and research covering the integration of telehealth into the system. For example Glasgow University is looking at the implications and barriers around doing this on a large scale.
- A major NHS initiative to build technical capacity.

The Telecare Strategy Board (TSB) supports links across the whole agenda, and is investing in research and development to prepare for the next challenges – e.g. better technology to improve efficiencies, learning from the current experiences from the Whole System Demonstrator programme.

Whole System Demonstrator

Launched in May 2008, this £31m programme aims to:

- Promote individuals' long-term independence.
- Improve individuals' and their carers' quality of life.
- Improve the working lives of staff.
- Be more cost effective.
- Be more clinically effective.
- Address diversity and equality issues.

There will be 6,000 participants (telecare and telehealth), which is probably the largest participant-based telehealth study. The Whole System Demonstrator programme arguably leads the world in building the evidence base for testing out how good these systems are in real life and the impacts on the wider system.

Participants involved in the demonstrators are:

- People of any age who are at risk of current or future hospital admission due to at least one of the following long-term conditions: Heart Failure; Diabetes; and COPD (i.e. telehealth eligible).
- Individuals with social care needs (telecare eligible) who are at risk of current or future hospital admission, who have complex health and social care needs (they may have one or more of the above conditions).
- Individuals who have both health and social care needs as defined above.

The Demonstrators are based in three areas which have a deliberately different mix of population characteristics – Cornwall, Kent and Newham. A rigorous evaluation has been put in place for a minimum of 2 years with a number of universities involved analysing qualitative and quantitative factors. In addition,

a new national learning network is being established by CSIP and the Kings Fund to share the lessons learnt along the way (Ref. 5).

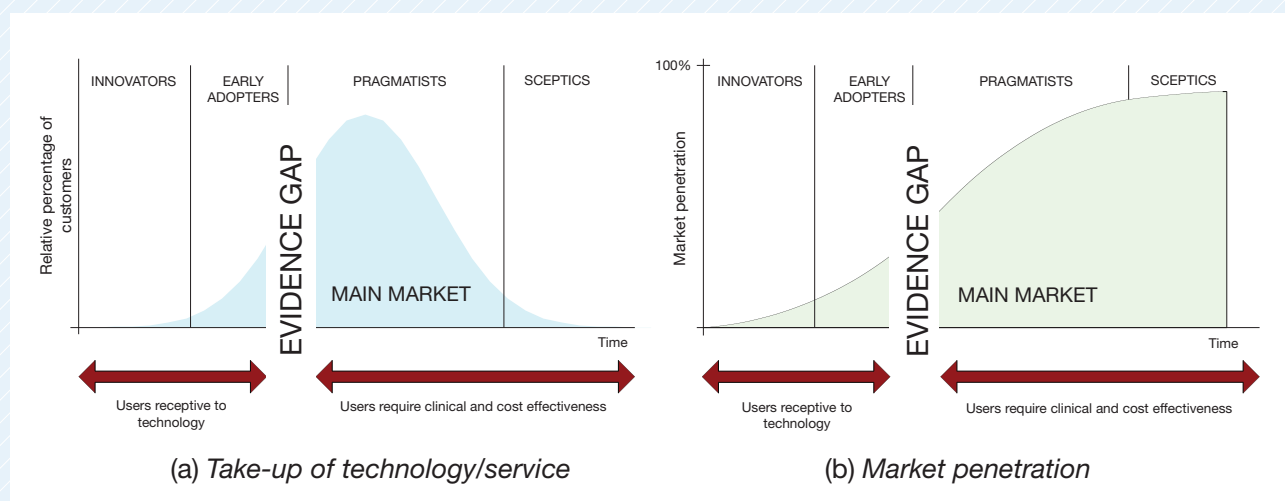
Challenges

Simon summarised his view of the key challenges that have been experienced to date and also directed workshop participants to the CSIP website where a summary of challenges has been published (Ref. 6).

- **What level of integration is required?** Are telehealth and telecare the same thing, how can links be developed between them? For example can the information be linked in a more effective way? What happens when the telehealth system advises that a person hasn't completed their daily telehealth download as agreed. Could telecare be used to advise if they have been admitted to hospital because of a fall, or if they are on holiday? It could certainly be known with telecare that the person is not in the house.
- **Reliable academic research information is mixed.** From academic information, we know that half of the telehealth approaches work, and half don't. Why is this? There are clearly other factors that influence success.
- **Should you wait around for Demonstrator results?** There are challenges either way. There may be missed opportunities – some feel strongly that in delaying action, it may be too late to address the demographic issues. The flip side is that we may do the wrong thing. However, if an area is keen to innovate, then two main factors should be considered. There should be a good reason to adopt the approach (from limited pilots or other evidence), and there should be good feedback mechanisms in place which inform and shape the development as it proceeds.

To reach a standard adoption of the use of technology to support healthcare and move on from the current situation as detailed in figure 1, there is a need to fill the evidence (information/confidence) gap quickly, and support organisations to move forward.

Figure 1: Adoption of telehealth



Simon concluded by stating that it is absolutely clear that the current situation is unsustainable in the medium to long term. In England there are 15m people with LTCs, and this is expected to increase by 25% in the next 25 years. However, there exists an opportunity using technology-enabled service redesign to move ahead, and although many are progressing along this line, there is lots more to do. Huge challenges lie ahead, particularly around the effective management of workforce issues/technology development/organisational change, and these will take time, commitment and resources to overcome.

TELEHEALTH DEVELOPMENTS IN SCOTLAND

Iain Hunter, General Manager for the Scottish Centre for Telehealth (SCT) (iain.hunter@nhs.net) then provided an overview of Telehealth developments in Scotland and reinforced that exactly the same challenges exist north of the border. He recommended looking at the SCT's website to give full details of current activity, as he would only be touching on a few examples of this within his presentation (*Ref. 7*).

Iain advised that despite the ongoing debates around definitions, a very broad interpretation of the term 'telehealth' identifies that it has actually been around for quite some time as we are already accustomed to using the telephone as a means of accessing health and social care and exchanging information. But telehealth is also about recognising that image/data transfer and video conferencing are important, be that in real-time or 'store and forward'. Telehealth is all about providing care differently and safely, and moving the information as opposed to the patient or clinician.

Iain advised that SCT is not a funding body, and their remit is to try and persuade/cajole Health Boards that by using technology they can improve services and effectively address national performance targets. SCT are involved in 'selling concepts', which is a very different approach to that adopted in England and within the Scottish Telecare Development Programme. He mused that it will be interesting to see which approach is the more effective over time.

SCT have been running for 2 years, but they acknowledge that to date there has generally been a scattergun approach, supporting a wide range of different projects to 'get off the ground'. Although this approach reflected the needs of Health Boards at that time, SCT are currently moving away from this to focus on getting nationally-based projects in place.

Iain then provided some examples of current projects progressing:

- **ENT project:** Aberdeen clinician providing consultancy service to Shetland and Orkney. The patient doesn't have to travel, and there is better use of the consultant's time. The project uses video conferencing equipment, with a nurse providing assistance at the patient end. Raigmore to Western Isles went live in March and phase 3 from Aberdeen to local community hospital is currently being planned.
- **Hyper-acute Stroke:** CT scan electronically passed to the consultant, who then makes a diagnosis which supports the delivery of thrombolysis within the 3-hour national target. Many stroke physicians are very supportive of this approach.
- **Health Presence Booth:** Working in partnership with Cisco systems to provide a facility in remote and rural locations which do not rely on having a health professional present. The project is being piloted in Aberdeen Royal Infirmary to clarify how much physical help patients generally need – with 100 patients having used the booth so far. The project is identifying whether the remote diagnosis is the same as one undertaken face to face with all people being currently seen twice to check. The booth is currently

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installed in a hospital in a room just along the hall from the consultant. Findings to date identify an extremely good correlation between the two sets of data and the next stage is to install the booth into a rural location, possibly within a cottage hospital at first.

- **Dermatology:** Successful implementation of a photo triage approach used in Holland which Forth Valley are very keen to take forward as a pilot in Scotland.
- **COPD:** Three pilots are progressing in Lothian, Lanarkshire and GG & Clyde, which are adopting very different approaches. Lanarkshire using telephone, Lothian high tech equipment/readings transmitted to central point, and GG & C targeting service users in sheltered housing.
- **Pain Management:** Video conferencing linked training/support session for self management, working in partnership with Pain Association Scotland.

SCT produce a newsletter which provides further details of contacts and descriptions of individual projects. SCT have only been fully staffed for around 15 months, and have been working with champions at a local level. They have now taken the decision to focus on five key priorities for 2008:

- Long-Term Conditions.
- Paediatrics (working with four children's hospitals).
- Remote & Rural.
- Unscheduled Care.
- Education (using technology to provide education to avoid people having to travel).

Professor Richard Wootton from the University of Queensland, Brisbane, has recently joined SCT as their new Director. He is a recognised expert in the evaluation of telehealth and they are currently undertaking an exercise to develop broad-based criteria to inform future national projects. The criterion includes:

- Evidence (None to large RCTs).
- Practicability (Idea to large trials easy to scale up).
- Conformity (Nothing to specific HEAT target).
- Disease severity.
- Service profile.
- Net cost.

This has identified that COPD is coming to the top as a national priority area, along with hyper acute stroke, psychiatry. These are currently being refined into national applications.

Recognising the benefits of partnership working, the Scottish Centre for Telehealth has developed a number of collaborations which they are progressing with Professions, Industry, Voluntary Sector, NHS24, NHS Boards, Collaboratives, Patients/Carers, Academia and JIT. In conclusion, Iain reaffirmed that SCT recognise that widespread change cannot be achieved in isolation, and that there is also a need to work with suppliers more effectively.

SPEED DATING SESSIONS WITH SUPPLIERS

The workshop included a series of short, awareness-raising sessions on some current telehealth applications outlining the potential benefits and challenges of their use. These were facilitated by the following technology suppliers:

- Sensorium/Just Checking.
- Northgate Information Solutions.
- Chubb Community Care.
- Tunstall.
- BT/Atos Origin Alliance.

This provided a helpful opportunity for discussion, networking and receiving information about current and new approaches, and was generally considered extremely useful by participants and perhaps more helpful than the more traditional demonstration stands.

TELEHEALTH FOR LONG-TERM CONDITIONS IN ARGYLL & BUTE – THE LESSONS LEARNT SO FAR

Maggie Clark, Long-Term Conditions Manager for Argyll & Bute Community Health Partnership (maggie.clark2@nhs.net), then gave an excellent and informative insight into some practical experiences with Telehealth at a local level. Maggie is working in a mainly rural environment where the CHP recognised the potential of using Telehealth to address some key challenges. In particular there was an interest in supported self management.

Maggie's brief for the workshop was to identify some of the practical challenges around the implementation of telehealth at a local level, and make suggestions for how some of these might be overcome. She advised that, so far, patients/carers seemed to like the telehealth-enabled approaches. It raised awareness of symptoms and possible deterioration before crisis, and benefits have already been experienced around patient empowerment and enablement.

Stumbling Blocks

Argyll & Bute CHP started looking at the development of a number of telehealth projects well over a year ago and had a number of presentations from technology suppliers about applications that may support their approach.

However, during the implementation process, they have experienced a number of practical challenges that are worthwhile highlighting:

- Lack of guidance on key issues – no lead in Scotland.
- Not many similar projects in Scotland, and didn't know how to find out about them.
- Procurement was very complex, and although now knowledgeable, they were self-taught.
- Had to develop own approach for selecting technology suppliers.
- IT issues have been a minefield – didn't engage with NHS IT sections early enough, and difficult for them to prioritise because of other pressures/limited resources. The lack of IT infrastructure hinders the development of telemedicine/telehealth, all the more frustrating in a rural area.

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- Issues around patient information security and data transfer. External transfer of data via web onto NHS server was considered an IT security risk, and although raised nationally nothing really happened. No direction and little response from the top. Came up with own interim solution and one of the Whole System Demonstrator sites in Cornwall have agreed to host data.
- Different Health Boards working in different ways/lack of a national strategy to promote joining up.
- Finance – although capital funding was secured, there are recurring costs. These are difficult to manage and not all clear at the start of the project. Unless a solution is found, this makes it difficult to mainstream.
- Lack of engagement from some GPs, but also some good positive input from clinicians (mainly nurses). Have to initially persuade patients/carers, but some positive outcomes already being experienced by them.

What Could Help Future Projects?

Maggie then gave some very helpful suggestions on their views as to what could be done at a national level to help practitioners take forward local technology supported initiatives:

- SCT should develop national toolkit and provide national leadership (need top down support for telehealth).
- Guidance on procurement needed, also increased understanding of different telecare/telehealth approaches.
- Better understanding of revenue consequences.
- Increased e-health resources to support these projects (national server to host data?). The development of local infrastructures to support telemedicine projects.
- Funding – where it is and how to access it.
- National network to enable shared learning.
- Electronic record which links with all systems.
- Publication of projects – demonstrate the benefits of what we are doing.

What's Next?

Refocusing on Argyll & Bute specifically, and where they are moving to with their telehealth developments, Maggie advised that they are continuing to develop four main approaches:

- Supporting people with COPD, high prevalence in the area.
- Pilot on sheltered/care home – multi users.
- Telehealth POD in remote areas, e.g. one of the island.
- Heart failure pilot – linking with GG and C Health Board & involving two CHPs (West Dunbartonshire) across primary care and acute care.

In addition, they are looking at introducing patient education via video conferencing – both in a generic and condition specific way. They also intend to publish work on experiences and benefits to date and are pursuing the development of a telemedicine project – cardiology outpatient clinic held in Lochgilphead, with Glasgow Royal Infirmary to reduce patient travelling and improve the patient experience.

Maggie concluded by saying that looking back they have undoubtedly made some mistakes and were, at times, naive in their initial approach. However, they have learnt a lot and she is keen to support others in not making the same mistakes. She stressed the positive results of their labours. Argyll & Bute CHP have in place very good relationships with the local authority, and together they would still have definitely progressed with telehealth in spite of now knowing the challenges. In response to some questions from workshop participants Maggie made the following further recommendations to expanding good practice and support the widespread adoption of telehealth including:

- Development of a “Community of Practice” for Telehealth via NHS website.
- Develop model evaluation framework – not in-depth enough, also need guidance on engaging with academia. Learning should be shared across all pilots, shouldn’t need to continually evaluate when we already know the benefits.
- Undertake a high-level national campaign to help support wider acceptance and roll-out.

RECOMMENDATIONS

To increase awareness of what is going on within Telehealth, and promote better joining up of telecare/telehealth at a local and national level.

REFERENCES

1. Building Telecare in England (Oct 2005); Our Health, Our Care, Our Say (Jan 2006); Putting People First (Dec 2007); National Stroke Strategy (Dec 2007); Transforming Social Care Circular – LAC (2008)1 (Jan 2008); Carers at the Heart of 21st Century Families and Communities (June 2008)
2. Outcomes from Telecare and Advanced Assistive Technology – Two Years of Progress (2008) – www.icn.csip.org.uk/telecare/index.cfm?pid=779
3. LA profiles for Telecare – www.icn.csip.org.uk/telecare/index.cfm?pid=778
4. Birmingham Own Health – <http://birminghamownhealth.co.uk/1>
5. Whole System Demonstrator Action Network – www.wsdactionnetwork.org.uk
6. Supporting Long Term Conditions and Disease Management through Telecare and Telehealth: Evidence and Challenges – [http://www.icn.csip.org.uk/library/Resources/Telecare/Support_Materials/Briefing – Telehealth_SB_Final2.doc](http://www.icn.csip.org.uk/library/Resources/Telecare/Support_Materials/Briefing_-_Telehealth_SB_Final2.doc)
7. www.sct.scot.nhs.uk

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