



## **Making Open Data Real: A Public Consultation - Response from Tunstall Healthcare**

**25 October 2011**

### **1. The role of telehealthcare in *Making Open Data Real***

Tunstall welcomes the concept of using 'Open Data' as an operating principle for public services.

Historically, government has been one of the largest collectors of data. However it has not matched the volume of data collected with improvements in the quality of disseminating the findings of those data.

The development of new technologies coupled with increasing levels of literacy in information technology provide an opportunity to revolutionise the way data is both collected and presented across government. In healthcare, the demands on the National Health Service to deliver £15-£20 billion worth of efficiency savings, at a time of fiscal difficulties and demographic pressures, presents a clear challenge and a strategic imperative to use existing data better.

New technologies, such as telehealthcare can transform the provision of health and social care services and help these services move away from a model of care and support based around the concept of 'fix when ill' to one of 'prevention and support,' helping to simultaneously deliver improvements in efficiency and patient outcomes.

The data collected through telehealthcare presents clear benefits to patients, clinicians and commissioners that can help drive this transformation, as follows:

- for patients, greater information puts patients in control of their health, greatly aids self-care and can improve their overall wellbeing and support the achievement of better patient outcomes;
- for clinicians, greater information about their patient's condition can help identify problems and complications earlier in the care pathway reducing more serious complications, hospital admissions and residential care placements; and
- for commissioners, the data captured and disseminated by telehealthcare can help them assess the performance of providers. The data can be put back into the system to drive up improvements in the outcomes that those services are delivering for patients in their area. Through supporting increased transparency, accountability and accuracy the use of data can also assist in breaking down barriers between health and social care services and improve service integration.

The conclusion and findings of the Whole System Demonstrator (WSD) programme, the randomised control trial of 6,000 patients and adult social care telehealthcare users in England, presents a very significant opportunity to roll-out telehealthcare more widely across the country and can help capture greater patient, clinical and commissioner information to drive the open data revolution.

The benefits of this will be felt beyond health and social care services. As recognised by the Department of Health<sup>1</sup> and the Department for Business, Innovation and Skills<sup>2</sup>, growth in the life sciences sector will play a pivotal role in supporting the Government's wider growth agenda and telehealthcare can help to support this.



However, in order to make this open data revolution in health and social care services a success, the following measures will need to be put in place:

- A common dataset should be developed for telehealthcare, ensuring that all providers collect information on the outcomes – or proxies for outcomes – that really matter. This dataset should be clinically-led and will help support the wider cross-government drive to deliver more transparent, useable and useful data which will help deliver improvements in public health through a greater focus on patient outcomes
- A national clinical lead should be established to support commissioners in implementing efficient and effective telehealthcare. A specific objective of this role should be to encourage effective, meaningful and ongoing clinical engagement
- The Government should support the campaign for every health provider organisation to appoint a chief clinical information officer to provide clinical leadership on technology projects
- Commissioners should publish data on the outcomes achieved for their populations
- Providers of telehealthcare should be required to publish quality accounts, documenting the quality of service they deliver

## **2. The key themes of our response**

Tunstall welcomes the opportunity to engage with the Cabinet Office's Open Data consultation paper. As the world's leading provider of telehealthcare solutions that support patients and older people to manage their conditions and needs at home, Tunstall has been at the forefront of innovation in the use of information and data in health and social care for the last fifty years.

The Government's proposals to make open data real present an opportunity to change the way in which services are delivered to people by the state and Tunstall welcomes the focus on the six opportunities of open data outlined in *Making Open Data Real: A Public Consultation*:

- Accountability
- Choice
- Productivity
- Quality and outcomes
- Economic growth
- Social growth

Our mission is to provide market leading telehealthcare solutions which play a pivotal role in managing the health and well-being of people around the World.

## **3. Implementing the ambition to make open data real**

In order that the ambitions of the Government's approach are realised, there will need to be concerted and coordinated action across all government departments. This is needed to ensure that new methods of care delivery and means of implementing information exchange, such as telehealthcare, are implemented widely and that patients and the health service as a whole are allowed to benefit from these innovations.



In order to support improvements in health and social care services, information and data collection and publication systems need to be clear and accurate. Telehealthcare can help ensure this and make sure that professionals, irrespective of the setting or organisation in which they work, have access to up-to-date and accurate information on which they can base their decisions. The data available must be deployed in the best way to encourage joint working and integration between different organisations while at the same time providing information that is relevant to the particular healthcare, social care and other public service professionals and their responsibilities. In some cases, to achieve this change traditional cultural or structural barriers between public services will need to be overcome.

Tunstall has developed technology solutions to address these challenges. Our ICP (integrated care platform) can assist in delivering an integrated health and social care service for commissioners and clinicians by measuring and improving outcomes as patients proceed through the patient pathway. This integrated system allows multiple stakeholders to share common adult care practices in order to enable higher quality and more cohesive care delivery by all. The system enables tiered triage of patient information, where data can be filtered and validated. Our ICP also provides telecoaching and educational content. This technology is a tangible example of using information in a better way to improve public services.

Further, the data collected by clinicians through the introduction of telehealthcare can increase healthcare professionals' and social care commissioners' understanding of the populations they serve as they can access up-to-date information on a section of their population's health needs. This allows them therefore to allocate resources in a more targeted and more effective way. This can both drive efficiencies and improve patient care.

The Government's public service reforms present a real opportunity to change the way in which care for patients with long term conditions is delivered. The forthcoming publication of the findings of the Whole Systems Demonstrator project<sup>3</sup>, covering 6,000 telehealthcare users will provide the Government with a unique opportunity to fundamentally transform the delivery of public services in health and social care by realising the potential of telehealthcare and delivering growth in this sector.

The rest of Tunstall's response to the consultation is structured to reflect the opportunities of open data identified by the Cabinet Office in Chapter 7 *The Six Opportunities of Open Data* of the consultation paper<sup>4</sup> and we restrict our comments to those areas where our expertise is relevant.

#### **4. Accountability**

The key change in behaviour needed to make NHS and adult social care services more accountable and genuinely responsive to feedback is increasing the speed at which the information is transmitted through the system. The more up-to-date information is, the more useful it is for all those involved as it can therefore be acted on more quickly. This should result in greater engagement with patients and help improve levels of patient satisfaction as they will be able to see that their feedback is acted upon.

The introduction of new technologies, such as telehealthcare, can greatly assist the speed at which feedback information is transmitted in the NHS and adult social care services. Crucially, this can assist the speed by which such public services are held to account. Patients with telehealth equipment such as Tunstall's mymedic health monitor take regular health interviews to update themselves and clinicians on their condition. Additional questions can be added to the interview process quickly and easily, which



could ask broader questions on patient experience, which could be very useful in collecting data relating to Patient Reported Outcome Measures (PROMs). This data can then be communicated, assessed rapidly and where appropriate, published, so that the quality of services can be scrutinised and service providers can be held to account.

## **5. Choice**

We agree with the Government's argument that choice matters to citizens. Data captured and communicated through telehealthcare empowers patients, providing them with greater information about their condition allowing them to compare services and exercise an informed choice. This means of supporting choice resonates with a key theme of the Government's reform agenda by enabling the personalisation of services that are delivered to the people who use them.

When a patient is analysing information around service provision it will be vital that they are allowed to compare services between the full range of providers on offer across all care settings, including, where clinically appropriate and economically viable, care at home. The patient will then be empowered to exercise choice and control over their care and treatment.

For example, as the health service looks to introduce and develop new and innovative ways of caring for patients, such as telehealthcare, it will be important that these new options of care are clearly and fairly communicated to patients and explained alongside traditional care methods.

Another important use of information and data in the health service is in providing clarity to patients, helping them understand the services on offer to treat that condition and giving them a greater understanding of their condition. Clear information can be particularly helpful for those with long term conditions and help them to manage their care better in a community setting. Long term conditions account for 70%<sup>5</sup> of the NHS budget and by 2025 it has been estimated that there will be 18 million people in England who will have one or more long term condition.

Telehealthcare can assist in this regard by providing up to date monitoring of a patient's condition, which can reassure them that their condition is stable, allowing them to carry out basic daily tasks in the home and in the wider community.

Tunstall welcomes the Government's plans to increase choice in the NHS and to deliver a revolution in the way that health information and data are collected and delivered to patients. As an example of our work in action, NHS North Yorkshire and York<sup>6</sup>, which is deploying 2,000 telehealth systems, has created an online portal for patients, carers and clinicians to find out more about telehealth and its use. This patient-facing information portal is an example of the information revolution in practice and includes the following valuable sources of information:

- How telehealth works
- Patient case studies
- Frequently asked questions
- How an individual can get access to telehealth
- A contact portal for queries and comments



The portal provides a direct access point for patients with an interest in telehealth and acts as both an education and information tool supporting informed patient choice. Other public service providers which embrace innovative methods of service delivery should consider the creation of similar portals to engage with patients about new services.

## 6. Productivity

Data collection in the health service is currently very expensive and not always efficient. More efficient collection of information can help the NHS to realise the savings of £15-£20 billion that it has been tasked with achieving by 2014.

One area where it can be difficult and expensive to collect data is on patient experience – a factor which relates to the themes of accountability and choice which are at the heart of the Government's reform agenda. Telehealthcare technology can embed questions on patient experience within existing care provision for conditions such as Chronic Obstructive Pulmonary Disease (COPD), Congestive Heart Failure (CHF) and diabetes with no extra difficulty or cost.

The broader introduction of telehealthcare into the provision of NHS and social care systems can help deliver greater information in an efficient and effective way. In providing real time information to patients and clinicians about a patient's condition, any deviation from a patient's set parameters are quickly noted and this leads to earlier interventions reducing the number of bed days patients spent in hospital. More broadly, this leads to reductions in admissions and emergency re-admissions and therefore costs.

Research from the Picker Institute has shown that tailored and personalised information can help change patient behaviour and contribute to better health outcomes<sup>7</sup>. In its research the institute noted that *"patient-centred telecare – providing people with support over the phone to their homes – can reduce social isolation, improve people's confidence and ability to cope, and improve their quality of life and reduce depression. Where it replaces routine personal home visits or clinic visits it saves costs<sup>8</sup>."*

Tunstall's mymedic health monitor is an example of innovative technology supporting productivity in public services. At a set time the mymedic monitor alerts the user, such as a patient who suffers with chronic heart failure, that it is time to take their health interview. The health interview takes the patient through a series of measurements such as blood pressure and temperature. This information is then sent via the telephone line or GSM to Tunstall's icp triagemanager clinical software that allows health professionals secure access to patient data at any time. Any deviation from set parameters will alert the health professionals so that patient treatment can be modified appropriately in order to prevent an exacerbation from occurring. Additional questions, which could be useful in collecting data relating to PROMs, for example, can be added to the health interview. The advantage of this system is that the information can be shared by health professionals from different areas including health and social care thus supporting the integrated delivery of services. It also enables trends over time to be monitored; it provides real time information and offers very flexible health scripts to be generated. The support that such technology offers to public services is therefore detailed and varied.

Information and data are also of particular importance for carers. Carers play a vital role in the provision of health and social care services and have been estimated to save the taxpayer £80bn<sup>9</sup>. Unfortunately many carers are currently not made aware of the types of service and support available to them which



can both improve their quality of life and the quality of care received by the patient. Telecare can greatly assist carers by providing reassurance that the person they are caring for has access to immediate assistance 24 hrs a day. Such support can also help carers return to work alongside their caring duties which can have wider societal and economic benefits.

Telehealthcare also has an important role to play in facilitating better integration and more cohesive service delivery across traditional social care and health boundaries. For example, Tunstall is working with Walsall Metropolitan Borough Council<sup>10</sup> to better integrate health and social care services that are helping to deliver benefits to patients and commissioners.

39% of households in Walsall have a person with a long term condition and the commissioning costs for managing emergency admissions, ambulance call outs and outpatient appointments relating to this group have been estimated at £12.9 million a year. Walsall is using new technologies such as telehealthcare to help better manage patients with long term conditions in the community, thus reducing pressures on health and social services.

Walsall is pooling a £2.5m investment in telehealthcare between the health service and the local authority over the next two years and seeks to generate a threefold return on this investment over the next five years. The experience of Walsall demonstrates the importance of real partnership working to ensure the better integration of health and social care services.

The innovative approach adopted by Walsall provides a model that should be adopted across the country to help deliver genuine integration across public services.

## **7. Quality and outcomes**

Telehealthcare can empower clinicians by providing them with the information on which to base sound clinical decisions by benchmarking how patients respond to treatment and care and thereby drive improvements in quality and health outcomes.

Telehealth is playing an increasing role in the delivery of care of long term conditions in the NHS with around 100 NHS organisations now using telehealth as part of their management of patients with long term conditions, including COPD, CHF and diabetes. For older people and those with long term needs, making patients feel empowered and confident in making decisions about their care is critical in helping to stabilise their condition and avoiding exacerbations and unnecessary hospital admissions. In providing real-time information to patients and clinicians, telehealth can help with this and, in almost all studies of the technology, patients have reported high levels of satisfaction (>85% satisfaction), an improved ability and confidence to manage activities of daily living, and reduced anxiety. Very few patients (<5%) are unable to use the technology and most adapt well to telehealth monitoring<sup>11</sup>.

Information is of course important in supporting the work of healthcare professionals to deliver improved outcomes. For example, in providing real time information to clinicians, technology such as Tunstall's icp triagemanager allows health professionals to maintain contact with patients between health visits by collecting clinical and wellbeing data. This data is fed back to clinicians who can prioritise and assess those in need of immediate intervention in the most effective way. Telehealthcare is being developed in such a way that it can integrate with existing systems used by GPs. For example, Tunstall is developing a 'patient portal' which is a software tool that allows the patient to log in and view their own vital signs



data, measurement notes, reminders and messages and other information links that are relevant to their care.

Tunstall is currently engaged in a number of international pilots to demonstrate the potential of telehealthcare in improving outcomes. In Andalusia in Spain, for example, we are involved in an innovative project under the EU CommonWell initiative<sup>12</sup> which integrates social care information with calls to emergency services in order to provide people with a more efficient response when requiring help. Information from both the Andalusian Agency for Social Care Services and Dependency is being linked the emergency health service provider (EPES) into one common platform. People with a need for social care will therefore be identified by the emergency services and put into contact with the appropriate services. This system means that both services have live, relevant information about patients and can therefore offer a more efficient and effective service. In addition, in the Netherlands, Tunstall is involved in an innovative telehealthcare project which integrates health and social care information to better support people with Chronic Heart Failure at home, allowing professionals to access live data and providing a single point of contact for patients.<sup>13</sup>

The potential to improve patient outcomes and reduce hospital admissions is enormous. Mainstream telehealth services in other comparable countries have delivered a 39% reduction in the hospitalisation rate for patients with heart failure; 51% reduction in the hospitalisation rate for patients with COPD; 75% reduction in the hospitalisation rate for patients with diabetes; and a 29% reduction in the hospitalisation rate for patients with coronary artery disease<sup>14</sup>.

In delivering telehealth to the UK, Tunstall is already working to help reduce hospital admissions. NHS Tameside and Glossop<sup>15</sup> has partnered with Tunstall Healthcare to deploy a fully-managed telehealth service, which will enhance care provision for patients with Chronic Obstructive Pulmonary Disease (COPD). The Trust serves a population of 240,000 and has a high prevalence of people with long-term conditions living in the area. In 2009-2010, heart failure and COPD resulted in 1,024 emergency hospital admissions for Tameside and Glossop. This alone equated to a cost of approximately £2.7m, which is predicted to rise to £3.5m annually over the next ten years. With the number of COPD patients expected to increase by 16% over the period 2008-2020, the service will play a key role in helping the Trust provide the support needed to enable patients to manage their condition more effectively. It will also generate significant cost savings to overcome current financial challenges.

## **8. Economic growth**

Telecare can help the relationship between families, carer and service user. The preventative approach of telecare alarms reassure the carer and family of a service user with a long term condition living independently at home that they have access to support 24 hours a day, seven days a week. This can help take away certain pressures on carers and can have wider societal and economic benefits, for example, in certain cases, allowing carers to stay in or return to work, safe in the knowledge that the service user has the support they need.

## **9. Social growth**

Telehealthcare can also help capture broader information on patient outcomes including patient experience information. Patients with telehealth equipment such as Tunstall's mymedic health monitor take regular health interviews to update themselves and clinicians on their condition. Additional



questions can be added to the interview process, quickly and easily. These could include broader questions on patient experience, which could be very useful in collecting data relating to PROMs which should in the future be configured to inform better commissioning of care. This means that patients and users will feel more empowered to decide between different types of care on offer but also by being able to understand more about their condition, they will be able to engage more with professionals and public services providers about how those services are designed and delivered.

For example, where telehealthcare has been introduced it has resulted in real innovations in the way health and social care services are delivered to patients with long term conditions. A survey of 200 patients currently using telehealth in NHS North Yorkshire and York shows that 96% of them would recommend the technology to others, with 98% being either 'satisfied' or 'highly satisfied' with how it is helping them manage their long term health condition<sup>16</sup>.



## Appendix – about Tunstall

Established in the UK in 1957, Tunstall Healthcare Group is the world's leading provider of telehealthcare solutions. Operating in more than 30 countries and employing over 1000 people, Tunstall supports 2.5m people around the world.

Tunstall's philosophy is simple - to protect, support and care for people - by providing healthcare technology and services that enable anyone requiring support and reassurance, such as older people or those with long term needs, to lead an independent life with dignity and reassurance.

Telehealthcare can dramatically improve the lives of people as well as their carers and is an enabler for re-engineering of health and social care provision whilst creating an integrated healthcare pathway.

### What we do

Tunstall provides complete and fully-integrated telecare and telehealth solutions for home, assisted living and specialist care environments, hospital communication systems, associated support services, response centre software systems and monitoring services.

- Telecare is the real time, 24 hours a day monitoring of risks to a person's independence.
- Telehealth status monitoring captures body vital-signs measurements and health surveys for individuals with assessed needs.
- The resulting sets of information can be processed and combined in single views of client data, to enable triage services and early interventions.



### Telehealthcare delivers:

- Improved personal outcomes
- Improved quality of life
- Economic efficiencies
- Sustainable health and social care systems
- Preventative solutions

Tunstall's telehealthcare solutions are of the highest quality and yet are relatively low cost products and services for care at home. The solutions offer a highly flexible care tool that can be adapted as users' needs evolve.

As well as supporting older people and those with care needs, informal carers benefit greatly from technology as they are under increasing pressure, noting for example that carer stress or loss of a carer are the primary causes of a person entering residential care.

Tunstall continues to expand market boundaries by creating innovative, accessible solutions that enrich people's lives, by empowering them to manage their own health and well-being.

### Our mission

To provide market leading telehealthcare solutions which play a pivotal role in managing the health and well-being of people around the world.



## Our values

Core to all Tunstall's propositions is the ethos of providing choice, improvements to quality of life and person-centred care. This is evident in every aspect of our work from the solutions we provide, the people we employ and the relationships we maintain.

Tunstall has long been associated with quality and innovation and is committed to developing groundbreaking new products and services that will work on a single platform, with reduced costs and increased capability.

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