The Need for a Clearer European Vision for Telehealth

Fisk, M.

The Need for a Clearer European Vision for Telehealth

Malcolm J. Fisk[1]

[1]Health Design and Technology Institute, Coventry University
mfisk@cad.coventry.ac.uk
Puma Way, Coventry University Technology Park, Coventry CV1 2TT UK

Abstract:

Publication of the European Commission eHealth Action Plan for 2012 to 2020 provides a focus for telehealth. Its accompanying Staff Working Paper seeks 'a policy debate on how innovation can contribute to rethinking the way in which healthcare is provided, by considering the latest developments in technology, innovative services and the growing impact of new media on the health and well-being systems.' The paper below responds to this call by offering a wider understanding (and definition) of telehealth. It also reports on the European Code of Practice for Telehealth Services (developed within the European Commission funded TeleSCoPE project) in helping to influence the configuration of telehealth services and in supporting a clearer European vision.

Introduction

There can be few clearer statements than that which affirms the need for 'deep-rooted structural reforms … to ensure the sustainability of [European] health systems while securing access to services for all citizens.' This provides part of the context for the European Commission eHealth Action Plan released at the end of 2012 [1]. In the Action Plan, eHealth is defined as 'ICT tools and services for health' and embraces both telemedicine and ICT for well-being.

Setting aside some uncertainties regarding terminology around telehealth (this is addressed later), it is apposite to note the significance and appropriateness of two of the words within the Commission statement. First is the word 'citizens' rather than 'patients'. It follows that any approach to eHealth must include the broader well-being of people (citizens) and should not solely reflect clinically driven responses to the higher-level needs of some 'patients'. Second is 'access' with its signal that people have choices that they exercise regarding the health services that they might wish to use.

Such wording in the Action Plan responds in large degree to the outcomes of work by the eHealth Task Force that reported in 2012 [2]. This pointed, amongst other things, to the need for a 'radical redesign of health' in a manner that includes integration between health and social care and recognition of people as 'owners and controllers of their own health data'.

This is the context within which the European Commission funded TeleSCoPE project has operated and now is delivering. The European Code of Practice for Telehealth Services developed within the TeleSCoPE project reflects, therefore, an approach and an ethos for telehealth that supports key aspects of the 'radical redesign' sought.

Definitions

The definition adopted within the TeleSCoPE project is such that telehealth is 'the means by which technologies and related services concerned with health and wellbeing are accessed by or provided at a distance in order to facilitate the empowerment, assessment or the provision of care and/or support for people and/or their carers (at home or in the wider community).'

This definition captures first, the fact that telehealth addresses both health *and* wellbeing. Therefore a role is envisaged where, on the one hand, patients can be monitored and interventions made that improve clinical outcomes; and, on the other hand, people can access services in ways that enable them to manage their own health (garnering the support of clinicians, health or social care practitioners when they see this as appropriate or necessary). There are, therefore, aspects of telehealth that support established health practice and which may focus on institutional settings such as hospitals, clinics and health centres. But, crucially, the definition recognises that there are aspects of telehealth that also address public health and preventative agendas by virtue of (a) responding more flexibly to people's needs and choices; and (b) encouraging people to adopt and maintain lifestyles that are conducive to better health, build 'health literacy' and their capacity for self-management.

It is arguable from the above that telehealth, albeit not defined in the eHealth Action Plan, includes components of both ICT for wellbeing ('the use of ICT in products, services and processes, in order to directly or indirectly improve the quality of life and wellbeing status of EU citizens') and telemedicine ('the provision of healthcare services, through use of ICT' in situations where 'the health professional … and the patient are not in the same location)'. It stands to reason, furthermore, that if telehealth is to

realise its potential for health *and* wellbeing, then its clinical component can be seen as falling mainly within the subset of eHealth that is, at least in part, recognised as telemedicine. Another part of telehealth might be considered, however, as outside of telemedicine. This perspective is the inverse of that indicated in the Action Plan which appears to share the perspective of COCIR (the European Coordination Committee of the Radiological, Electro-medical and Healthcare IT Industry) when it refers to 'telemedicine services such as telehealth' [1,3].

An inverse perspective where telemedicine is a subset of telehealth is considered as more inclusive and, therefore, appropriate for adoption in the European context. That inclusivity takes account of the aim for telehealth services to be accessible to all – regardless of people's age or their level of need for support in relation to the management of their health. This point, of course, links with the Action Plan reference to 'health capital' (health as a component of human capital) whereby people's contribution to society, regardless of age, can be maximised.

Aspects of the Policy Debate

The Action Plan seeks 'a policy debate on how innovation can contribute to rethinking the way in which healthcare is provided, by considering the latest developments in technology, innovative services and the growing impact of new media on (the) health and well-being systems.' Highlighted within the Action Plan is the need to overcome barriers to the adoption of eHealth (and, therefore, telehealth). The barriers relate to such matters as interoperability (of technologies and electronic health records, EHRs), the need for greater legal certainty around service provision, and the need for 'common schemes for conformity testing and accreditation' [1].

Only the last of these particular barriers is covered in this paper by virtue of the introduction given to the European Code of Practice for Telehealth Services (see below). But there is an imperative to overcome a range of barriers to telehealth. In the words of the Action Plan – 'current healthcare models are financially unsustainable' with eHealth carrying a 'promise of more efficient and cost effective care [that] is critical to the survival of the system of healthcare in Europe' [1].

With regard to the areas where service innovations are taking place, a pointer in the Action Plan is to the United Kingdom in view of its 'Whole System Demonstrator' trials that sought to provide evidence of telehealth's efficacy. Some findings from these trials are now being reported and can be considered as at least reasonably robust – in view of the

number of people recruited, the manner of their selection and assignment to intervention and control groups, and the twelve month period over which the particular study (noted here) took place. But there is an important caveat (recognised by the researchers) because of uncertainty around the extent to which people did not agree to be part of the trials and the subsequent 20% drop-out rate from them [4]. In all, over 1500 people were involved, with over 800 were assigned to the telehealth group. But the report is not comfortable reading for those eager to endorse the merits of telehealth.

Two findings from the trials are uppermost. First, it is affirmed that 'the trial of … home based telehealth for patients with chronic obstructive pulmonary disease, diabetes or heart failure found no main effect of telehealth on generic health related quality of life, anxiety or depressive symptoms over 12 months.' And, second, the study noted that 'the similarity of the patient reported outcomes across trial arms suggests that concerns about the potentially deleterious effect of telehealth are unfounded for most patients.' In setting both of these findings with in a wider research context (an extensive trawl of the literature was undertaken) the researchers point to their findings as 'strongly' suggesting that there is 'no net benefit from telehealth; therefore it should not be used as a tool to improve health related quality of life or psychological outcomes' [4].

Taking a Different Perspective

At first glance, these findings from the WSD trials might appear to 'pull the rug' from under key aspects of the Commission's eHealth strategy. But this is only be the case if telehealth is seen narrowly as a tool for helping to support traditional service frameworks aimed at delivering specific clinical outcomes for people with chronic conditions. In any case, as is pointed out by the researchers, 'robust evidence to inform policy decisions is lacking' or is at least ambivalent – a view echoed by the Commission itself [4,1]. The definition of telehealth adopted for the WSD study is, furthermore, limited in pointing to 'system' rather than service. Telehealth, they affirm 'enables the remote exchange of data between a patient and healthcare professionals to facilitate diagnosis, monitoring and management of long-term conditions' and 'affords the opportunity for earlier intervention which may reduce the frequency with which expensive hospital based care is required.'

Hence the WSD study reported here has limitations by virtue of it and the studies reviewed being focused only on the monitoring of vital-signs. Other telehealth services that would fall within a wider definition of telehealth were not part of the study, nor part of the trial. The conclusion of

the researchers that telehealth 'should not be used as a tool to improve health related quality of life or psychological outcomes' is therefore open to challenge. Also questionable is their seeming view that the finding of 'no deleterious effect' is further justification for the rejection of telehealth since this ignores the fact that suitably configured telehealth services can be considered an ethically more appropriate way to provide health services.

The words are important here. The potential changes that could come from a different (and wider) perspective on telehealth mean that, if such alternative approaches are nurtured and supported, we will be less concerned with the *delivery* of services and will be more concerned with *offering* services for people to access and use. This approach to telehealth accords with an ethical perspective concerned with promoting people's autonomy and choices – a matter that has been recognised within the TeleSCoPE project as fundamental for any code of practice. It accords, furthermore, with many objectives (endorsed by the European Commission) regarding citizenship and inclusion [5].

Such a new approach to telehealth service provision presupposes that as we move forward there will be growing cohorts of people who are increasingly aware of, and take more responsibility for, their own health. In other words they are or will be increasingly 'health literate'. The context is one where health literacy requires our greater attention – with this being a key recommendation of the eHealth Task Force and properly highlighted in the Commission's Action Plan [2,1].

The European Code of Practice for Telehealth Services

Supporting the changes in approaches to telehealth (and in promoting telehealth in accordance with a definition that embraces health *and* wellbeing) is the European Code of Practice for Telehealth Services. The Code, a beta version of which was released at the Medetel Conference in Luxembourg in April 2013, is seen as helping to give greater clarity to a European vision for telehealth.

The Code, it must be noted, only touches lightly on clinical or technical matters. But it makes clear that clinical inputs are important and that links with clinicians will often be essential. The key point is that, with a wider remit for telehealth there are roles for both clinicians and other health and social care staff in relation to people's health *and* wellbeing. With regard to technical matters, these often relate to signalling protocols and e.g. conventions for exchanging EHR data; and are, therefore, outside the remit of the Code with its focus on telehealth *services*. There are, however,

important aspects of the technology such as its usability, configurability and interoperability – all of which are touched on in the Code.

Also dealt with in the Code are matters regarding the safeguarding and usage of personal (including health) data. These will, of course, affect the way that people exercise their choices in accessing and using services. Conversely they will impact on the way that services (and technologies) can be flexible in response to people's choices (and in their use).

More broadly, the way in which the Code gives 'greater clarity' to a European vision relates firstly to the perspective taken. This includes a strong affirmation regarding the needs and choices of 'people' as well as 'patients'; and recognises the public and preventative as well as clinical health agendas. The definition of telehealth adopted by the TeleSCoPE project pertains.

Secondly the Code offers a structured approach by which different kinds of telehealth services can self-assess or be assessed by an independent external body in order to determine the extent of their compliance. The range of telehealth services in question includes those that use installed and mobile technologies (including video-links) to e.g. monitor and track people with dementia; prompt people in relation to their medication or therapies; help in the monitoring of people's vital-signs; or guide people by means of health or motivational coaching

The merits of the Code will be judged by the extent of its adoption in European member states. It offers, however, a vision for telehealth that can help to refine elements of the Commission's eHealth Action Plan and support a direction that clearly affirms the extent to which telehealth can deliver real and widespread benefits in terms of health *and* wellbeing.

References

[1] European Commission "eHealth Action Plan 2012-2020 – Innovative Healthcare for the 21st Century" Staff Working Document SWD 413 Final, Brussels 2012.
[2] European Union "eHealth Task Force Report: Redesigning Health in Europe for 2020" Luxembourg 2012.
[3] European Coordination Committee of the Radiological, Electro-medical and Healthcare IT Industry "COCIR Telemedicine Toolkit", Brussels 2011.
[4] Cartwright M et al "Effect of Telehealth on Quality of Life and Psychological Outcomes over 12 months (Whole System Demonstrator Telehealth Questionnaire Study): Nested Study of Patient Reported Outcomes in a Pragmatic, Cluster Randomised Controlled Trial" BMJ 2013; 346:1653.
[5] Fisk MJ and and Rudel D "Telehealth and Service Delivery in the Home: Care, Support and the Importance of User Autonomy" in George C, Duquenoy P and Whitehouse D (Eds) eHealth – Legal, Ethical and Governance Challenges. Springer Verlag 2012 pp211-226.