

S. BROWNSELL, A. HAYWOOD, M.S. HAWLEY, G. MOUNTAIN. *Determining features for telehealth applications which enhance self care for people with long term conditions. Gerontechnology 2010;9(2):200; doi:10.4017/gt.2010.09.02.233.00*

**Purpose** Supporting people with long-term conditions (LTCs) is a major priority facing modern society. The WHO has indicated that LTCs will be the leading cause of disability by 2020 and will become the most expensive problem for health care systems<sup>1</sup>. The use of ICT to support people with LTCs (telehealth) is growing in momentum and many countries consider it a priority to incorporate telehealth into their health care systems<sup>2</sup>. Traditionally, telehealth systems have focused on the transfer of physiological data from a person in their home to a health care practitioner at another location. However, much more could be achieved by existing and future technologies. There is also a need to consider how devices can be included within systems of health service delivery. This study sought to determine the features future generations of telehealth systems should deliver to support people with LTCs. **Method** (i) An analysis of LTC policy in England, using the Health Management Information Consortium (HMIC) Database to search for relevant documentation. As the focus of enquiry was contemporary rather than historical perspectives, the search was confined to documents published between 2003 and August 2008 (the month of the search). The resulting thematic analysis sought to identify current LTC policy and the emerging guidance to support implementation. (ii) Focus groups with volunteer participants with LTCs and service providers to establish the key determinants of how to support people with LTCs. (iii) Using the policy analysis combined with the perspectives expressed in the focus groups, develop a preliminary telehealth system and refine through discussions with project partners. (iv) Validation of the proposed system structure through interviews with patients. **Results & Discussion** The literature search returned 1,626 hits of which 19 met the inclusion criteria, with data being extracted from 15. A further 48 documents were identified through snowballing, from which 14 had data extracted. LTC policy prioritised self care; the components of this were (i) accessible information, (ii) appropriate skills to manage the condition, (iii) support networks and (iv) technology (remote monitoring). These data, along with the focus group themes, and an iterative process of requirement walk-throughs with the SMART2 project partners<sup>3</sup> resulted in a formal Statement of Requirements and system structure (Figure 1). Initial validation was provided through a focus group and subsequent semi-structured interviews with 6 users and 4 carers using a paper walk-through. Feedback was positive, but stressed the need for personalised services. Thereafter, efforts have centred on establishing a working prototype system for Chronic Heart Failure, Stroke and Pain. Further validation, based on the prototype system, is currently taking place with professionals and users through a cooperative evaluation. We are grateful to EPSRC Grant EP/F001835 for funding the work this paper is based upon.

## References

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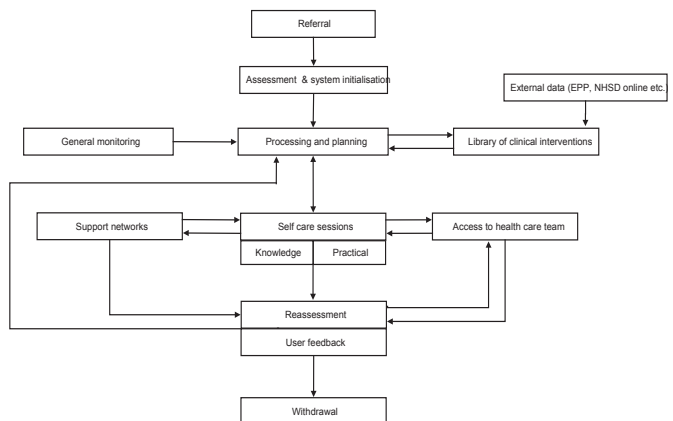


Figure 1: Proposed telehealth system structure