Conference Abstract

Understanding the operational, organisational and financial challenges in telehealth adoption through multi-disciplinary collaborative research

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Abstract

Introduction: Further understanding of the challenges in the adoption of technology enabled care services is required if these are ever to transcend their current status as an NHS England policy aspiration. Accordingly, this research aimed to explore the operational, organisational and financial barriers to using telehealth in community health settings.

Aims and objectives: The overall aim of this multi-disciplinary collaborative research study was to document the key barriers to, and facilitators of telehealth for patients with Chronic Obstructive Pulmonary Disease and Chronic Heart Failure, with a particular focus on (1) staff, patient and carer perspectives; (2) business models and organisational design; and (3) cost-effectiveness.

Methods: This mixed-methods longitudinal research was completed in two phases within four community health sites in the Yorkshire and Humber region over two years. During phase 1, qualitative interviews with 21 healthcare managers, 84 frontline staff, 40 patients and 12 carers were completed to build up detailed case studies of the local telehealth services, which were subsequently developed in several ways for the next phase. Phase 2 involved action research with staff to create and evaluate solutions to identified operational barriers, creative workshops to generate future telehealth business models, the production of a patient acceptance questionnaire and survey (n=266), and the development of financial and health economic models for telehealth (which is also based on a meta-analysis of clinical effectiveness and analysis of large-scale healthcare utilisation data).

Results: Looking across the programme of research, it is evident that wider adoption of telehealth is hindered by several interrelated factors, all of which must also be considered within the context of enormous change currently affecting the NHS. The key findings include the following: (1) The stakeholder map for telehealth is complex, varies between community services and is changeable over time; (2) There are a number of competing rationales for investment in telehealth and its use in clinical practice; (3) There are ongoing difficulties in demonstrating evidence of benefit; (4) Discordance between who pays for and who potentially benefits from telehealth services creates complexity in the design of business models; (5) Uncertainty amongst clinical staff about the benefits of telehealth and how this can be integrated into practice is important, especially where frontline nurses act as gatekeepers to patients; and (6) There is an absence of clear clinical pathways for telehealth and appropriate support at key stages of implementation and delivery.
**Conclusion:** There needs to be greater recognition of the complexity and interrelatedness of operational, organisational and financial barriers to the expansion of technology enabled care services. This is a critical first step in designing service models that can overcome this intricate web of barriers and make the policy aspirations a reality within the NHS.

**Keywords**

telehealth; barriers; mainstreaming; multi-disciplinary; research

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**PowerPoint presentation:**