Chapter 63
The Sociotechnical Challenge of Integrating Telehealth and Telecare into Health and Social Care for the Elderly

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ABSTRACT

Telehealth and telecare have been heralded as major mechanisms by which frail elderly people can continue to live at home but numerous pilot studies have not led to the adoption of these technologies as mainstream contributors to the health and social care of people in the community. This paper reviews why dissemination has proved difficult and concludes that one problem is that these technologies require considerable organisational changes if they are to be effective: successful implementation is not just a technical design issue but is a sociotechnical design challenge. The paper reviews the plans of 25 health communities in England to introduce integrated health and social care for the elderly. It concludes that these plans when implemented will produce organisational environments conducive to the mainstream deployment of telehealth and telecare. However, the plans focus on different kinds of integrated care and each makes different demands on telehealth and telecare. Progress on getting mainstream benefits from telehealth and telecare will therefore depend on building a number of different sociotechnical systems geared to different forms of integrated care and incorporating different forms of telehealth and telecare.

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1. THE DEMOGRAPHIC CHALLENGE

The population of elderly people in many developed countries is increasing rapidly and putting an ever-greater strain on healthcare and social services. Many determined efforts are now being made to treat elderly patients in their own homes rather than in hospitals for three reasons; first, that this is better for the people concerned (i.e., patients and their carers), second, that many forms of care are better delivered at home and third that it will be more cost effective for the various NHS and social care agencies involved. At the same time social services are making greater efforts to help elderly people sustain safe, independent living in their own homes for as long as possible. To achieve these objectives major organisational changes are now being made to provide more health and social care in the community and to bring together the many agencies involved so that care can be truly integrated. Many involved in these ambitious plans also believe electronic health and social care technologies can make significant contributions to the achievement of these objectives (e.g., Bardsley et al., 2013b; Waterson, 2014; Wyatt, 2011). The delivery of integrated care for the elderly therefore has important organisational and technical components and meeting these challenges involves major sociotechnical system changes. The purpose of this paper is to review the progress being made in meeting this challenge in England and in particular to look at the implications for the effective harnessing of the potential of telehealth and telecare.

Efforts in England to introduce integrated health and social care for the elderly in the community have been underway for a number of years (Department of Health, 2008). The organisational challenges, however, are considerable. The National Health Service, for example, delivers healthcare 'free at the point of need' to all citizens but social care in many circumstances requires the citizen to pay for care: integrating the two different kinds of support therefore raises important questions of who pays for what. In both health and social care, service delivery may come from a variety of agencies. In healthcare hospital care is delivered by secondary health trusts whilst community care is the responsibility of primary care agencies including General Practitioner clinics who provide medical care and a range of public and private services that provide specialist local support. Social care is the responsibility of local authorities and again may be delivered by a range of public and private service providers. Moving a greater degree of care 'closer to home' and coordinating the care between all the agencies involved is proving a major task that is explored further in section 4 below.

2. THE PROMISE AND DISAPPOINTMENT OF TELEHEALTH AND TELECARE

There is widespread belief that telehealth and telecare applications can be used to help people live independent lives at home even when they are suffering from multiple conditions that are severely disabling. In England the Department of Health has launched the 3 million lives programme (http://3millionlives.co.uk) to encourage their widespread deployment in community care. There are a variety of names given to technologies that support the health and social care of people in their own homes and in care homes. Telecare applications, often associated with social care, typically provide monitors and alarms in the home or on the person that can alert external agencies, e.g. in a call centre, when the person has a fall or another kind of emergency so that help can be sent. Telehealth and telemedicine are tools for health practitioners to deploy which, for example, enable test results to be collected at home and monitored by healthcare agencies or, in the case of telemedicine, enable remote real-time conversations between a patient and a medical specialist. These applications may also enable