The Business Case for Home Telecare: a Comparative Analysis Between the USA, Europe and Australasia

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Over the last ten years, there has been an evolving consensus in the developed world that ageing populations, and the increasing burden of chronic disease are placing increasingly unsustainable pressure on health care budgets. In developed countries, the epidemiological shift in disease burden from acute to chronic diseases over the past 50 years has rendered acute care models of health service delivery inadequate to address the health needs of the population and in developing countries, this shift is occurring at a much faster rate. With the management of chronic disease and its exacerbation now representing between 75-80% of healthcare budgets and the recognition that often quite small numbers of individuals are making disproportionate claims on these budgets through frequent hospitalisation and attendance at A&E departments, alternative models of healthcare delivery are being explored internationally. The EU has invested more than 650 million Euros in funding telehealth and telecare initiatives, and the US has promoted industry wide responses through the establishment of CAST and Continua and the passage through Congress of bills that permit the funding of telehealth services. In the UK, telehealth and telecare are the focus of attention with the funding of the Assistive Technologies grant at £80 million over two years, and a Long Term Conditions Grant of £30 million to fund large scale trials of home telecare.

In Australia, at the Federal Government level, little policy work has been done on enabling the development and the deployment of telehealth services as an integral part of funding healthcare services. The only model available for funding home telecare is through the Extended Aged Care in the Home (EACH) program, where care providers are funded at a level comparable to that available for high care patients in residential care facilities, equivalent to $AUD110/day. At State Government level however, many initiatives have been funded to develop an integrated model of care for chronic disease, most notably the Hospital Admission Program (HARP) (http://www.health.vic.gov.au/harp-cdm/) funded by the Department of Human Services in Victoria. However, Australia has been a pioneer in the development of telehealth technologies and a number of trials of home telecare technologies developed at the University of New South Wales, were funded as early as 2001. These have resulted in the deployment of this technology in a hospital-based ambulatory care program at the Austin Hospital in Melbourne, and also in a major deployment in a rural and remote region of Victoria, and as part of a number of EACH packages.

The business case for home telecare and other telecare services is still very weak and a systematic review of home telemonitoring for chronic disease reveals that very few randomized control trials have been carried out with the objective of evaluating health care outcome and cost benefit analysis. This needs to be remedied. Insufficient attention has also been placed on developing clinical models of care that should underpin the use of home telecare technologies, and the need to provide substantial training and support for both clients and clinicians in order for these new interventions to be effective. One size and cost does not fit all, and business models and funding needs to reflect the true cost of delivering telehealth services throughout the whole continuum from the complex chronically ill patient with multiple co-morbidities to the individual with poorly managed hypertension or the overweight and obese teenager at risk of diabetes.

In this paper, we will discuss business models as well as technical specifications, user interfaces, clinical services and knowledge management that we believe to be essential for the mainstreaming of telehealth services as an integral part of healthcare delivery in a modern industrialized society.