

# The Worker Perspective in Telehealth

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## INTRODUCTION

Globally, the adoption of telehealth service delivery has been slow and disappointing. The potential of telehealth, for example to reduce health care costs, increase efficiency and effectiveness, provide better quality and more equitable access to health services, has not yet been realized (Jang-Jaccard, Nepal, Alem, & Li, 2014; van Dyke, 2014). The stated benefits of telehealth adoption include patients not having to travel long distances to access health services, reduced costs for both the patients and the public health system, access to expertise and training by remote health care workers and better connection of services (Beatriz Alkmim et al., 2012; Jang-Jaccard et al., 2014).

There are many stakeholders involved in the successful adoption of telehealth. Jang-Jaccard et al. (2014, p. 496) identified four main stakeholders: 1) governments; 2) telehealth application developers and service providers; 3) health professionals; and 4) patients (including family and community support). There are numerous research studies that attempt to identify both the barriers and facilitators of telehealth adoption. The overarching theme is that adoption of telehealth is more complex and time-consuming than had previously been anticipated (S Mair et al., 2012). Indeed, the adoption, use and diffusion of information and communications technology (ICT) in health care is generally much lower than in other areas of our lives such as work and leisure (Christensen and Remler, 2009; Cho et al., 2007).

There is limited research on the implications of telehealth delivery from the perspective of the health care professionals (workers). Telehealth health care providers work from a variety of locations such as their homes, from call centres, family doctor surgeries and health clinics. Roberts, Mort, and Milligan (2012) note that workers that interact with clients (patients) to provide ICT enabled health care services have specific skills and capabilities to be able to provide the required level of care effectively and efficiently.

This chapter examines the perspectives of telehealth delivery from the perspectives of the health care professionals in this field.

## BACKGROUND

### Definitions

There are a number of terms in the literature, for example ehealth, mhealth, telehealth, telemedicine and telecare that refer to the flexible delivery of healthcare using various forms of ICT. eHealth encompasses all uses of ICT used in providing health care (van Dyke, 2014; Wade, Elliott, & Hiller, 2014). Telehealth is a subset of ehealth and refers to preventative, promotive and curative health care delivered over a

distance (van Dyke, 2014). The technology includes the transmission of data, voice, images and video as well as web and mobile applications and telephony often in real time (Standing, Gururajan, Standing, & Cripps, 2014; Wade et al., 2014). Telemedicine is a subset of telehealth and uses communications networks for delivery of healthcare services and medical education from one geographical location to another (Sood et al., 2007). Mhealth utilizes mobile devices and applications to access eHealth services (van Dyke, 2014). Telecare, a subset of telehealth, uses ICT to monitor emergency or ongoing health conditions to support independent living (van Dyke, 2014). The term ‘telehealth’ is used in this chapter to refer to the delivery of health services using ICT, which includes the transmission of data, voice, images and video, and can also involve mobile and web technologies.

The objective of telehealth is to improve the accessibility of health care and to reduce costs (Armfield, Edirippulige, Bradford, & Smith, 2014). Telehealth programs usually begin with trials or pilot studies, often funded by governments (Wade et al., 2014). Telemedicine and ehealth applications are predominantly driven from a technology perspective rather than the clinical problem (Armfield et al., 2014). The adoption of ICT in telehealth is also constrained by the lack of integration of new technologies in clinical practice workflow and daily activities (Ackerman, Filart, Burgess, Lee, & Poropatich, 2010). Although the choice of technology is critical for sustainable telehealth adoption, the uptake of telehealth is complex and involves more than just technology. Issues that should be carefully considered include managing stakeholder expectations, integrating telehealth processes with standard work processes, developing effective knowledge sharing and social communication patterns, as well as dealing with the challenges of working in a virtual team environment (Standing et al., 2014; Cho et al., 2007).

## Success Factors and Barriers

A number of factors have been found to facilitate the adoption and diffusion of telehealth delivery. These include sufficient levels of technology and infrastructure support, user training, change management, development of protocols, acceptance by health care providers, support for health care provider collaboration, business models and supporting policies and legislation (Wade et al., 2014). A European study that examined diffusion of innovations in telehealth found that telehealth deployment relied on both technological and organizational innovation. Another study in the UK found that some health care professionals, often general practitioners (GPs) were reluctant to use ICT enabled health care delivery because they were concerned about losing touch with their patients. In such circumstances, nurses became the main coordinators of ICT enabled health care because they took responsibility for interacting and networking with GPs, other health care providers, call handlers and with the technology itself (Lluch and Abadie, 2013). Another study reports that successful telehealth adoption requires a combination of cultural and behavioral changes in order to be successful (Ackerman et al., 2010).

Barriers to the successful adoption of telehealth delivery include technical problems, insufficient or lack of technical support, usability issues, health care provider concerns about quality, ethical and legal issues, absence of protocols, lack of a business model and regulatory issues (Wade et al., 2014). Many issues with the use of telehealth arise because of the problems relating to virtual work (Standing et al., 2014) including resistance to new work processes (Beatriz Alkmim et al., 2012) and resistance to new technologies (S Mair et al., 2012). A UK study examining telehealth adoption from the perspective of nurses found that the disruption of the technology related to three key areas. The first was the daily work routines, the second was the interaction with their patients and the third was skill set and expertise. The skill set and expertise issue was particularly troubling because nurses felt that they were undermined and not adequately trained (Sharma et al., 2014), thus indicating that sufficient levels of training are a necessary requirement of successful telehealth adoption.

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