

Chapter 33

An Evidence-Based E-Health Agenda: A Rural Perspective

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ABSTRACT

This chapter introduces the reader to the diminishing health services in rural Australia and highlights eHealth as the potential 'leveller' for rural health settings. Initially, eHealth is defined in context and eHealth stakeholders and their current contribution to eHealth within the Australian health system are identified. Then it resumes by outlining the feasibility of a nursing eHealth agenda in rural Australia in light of examined barriers and enablers. A future trends section reviews the findings and suggests potential course of action and further opportunities for research. It concludes by suggesting that care must be taken in considering the myriad number of factors that can support or hinder the development of a successful eHealth agenda for Australian rural health context.

INTRODUCTION

It has been recognised that rural communities in Australia and the services available within these

communities have declined (Humphreys et al., 2001). This decrease has led to the rationalisation of expensive and complex health treatments away from rural and remote areas and to larger centres. In addition, specialist services, when able to be engaged

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by a rural hospital, are available on a limited basis via outreach programs. Rural Australia is facing a large workforce shortage, and the recruitment and retention of suitable staff in the medical and allied health professions is increasingly difficult, together with the lack of primary health care services (Liaw & Kilpatrick, 2008).

Worldwide, eHealth is seen as critical to the future of health professionals, particularly those that practice in a rural environment. Expected major shifts in the provision of healthcare, in response to the demands for cost-effective, high quality and enhanced patient safety and services are set to impact on how healthcare is delivered affecting the whole continuum of care and its stakeholders. Furthermore, shifts in the provision of care require sound change management strategies that reflect a clear vision and defined goals to be attained.

However, this chapter will argue that defining what eHealth is and what its implications are for stakeholders in the Australian context is less clear. First, this chapter will attempt at breaking down the individual components that define eHealth from the existing international and local literature to then identifying the stakeholders and their current roles and circumstances within the Australian context. A current overall view of the state of affairs is built and potential avenues to affect change are highlighted.

WHAT IS EHEALTH?

A comprehensive systematic review by Oh and Rizo (2005) analysed the definitions used to describe eHealth, and the context in which they occur. The review focussed on peer reviewed published papers and the Internet. Whilst the qualitative review concluded that there was no consensus on a definition for eHealth, it identified two universal themes: health and technology at the core with six other less general themes of: commerce, activities, stakeholders, outcomes, place, perspectives (Oh et al., 2005).

In addition, a second investigation on eHealth within the field of health (medical) informatics, ratified that the definitions varied in accordance with functions, stakeholders or context and most used a broad range of medical informatics applications with an emphasis on the networked communication capabilities, particularly via the internet (Pagliari et al., 2005).

These two studies provide a hint to two emerging visions of eHealth. One sees technology at the core leading a 'health-care productivity revolution' in the health care system through fast efficient flow of information that incorporates evidence-based practices into targeted patient care (Goldstein et al., 2004; Kirsch, 2002; Nagykaldi & Mold, 2007). The other, we would argue in this paper sees healthcare (Evidence Based Medicine) at the core supported by technology and more importantly, it is context specific.

This is a critical distinction that has deep ramifications for stakeholders and future change management strategies, particularly in the Australian rural context. At this point it is imperative to understand what evidence based medicine implies and who the stakeholders are. Later in the chapter we will examine which vision best describes the current Australian situation.

EVIDENCE BASED MEDICINE IN EHEALTH

Evidence-based health care (medicine) is the conscientious use of current best evidence in making decisions about the care of individual patients or the delivery of health services (Ivanitskaya et al., 2006). Some authors suggest that Evidence Based Medicine (EBM) comprises two elements: first, the current best evidence is up-to-date information from relevant, valid research about the effects of different forms of health care, the potential for harm from exposure to particular agents, the accuracy of diagnostic tests, and the predictive power of prognostic factors; and second, evidence-

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