Chapter 4.48
The Challenge of Privacy and Security and the Implementation of Health Knowledge Management Systems

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ABSTRACT

Health information privacy is one of the most important and contentious areas in the development of Health Knowledge Systems. This chapter provides an overview of some of the daily privacy and security issues currently faced by health services, as health knowledge system developments risk outpacing medico-legal and professional structures. The focus is a mixture of philosophy and pragmatics with regard to the key "privacy" and "security" issues that challenge stakeholders as they try to implement and maintain an increasing array of electronic health knowledge management systems. The chapter utilises a number of evolving simple visual and mnemonic models or concepts based on observations, reflections and understanding of the literature.

INTRODUCTION

The focus of this chapter is largely shaped by the common themes and thoughts expressed, and dilemmas experienced, within the environment in which the Author works. However many of these local opinions are shaped by more universal forces, media, and experiences, and common themes, concepts and challenges can be found internationally, both within health, and other complex systems that handle personal information (Anderson, 1996; Coiera & Clarke, 2003; Tang, 2000). Health Knowledge Management systems are assisted by processes that provide complete, accurate, and timely information. Issues of security and privacy have the capacity to facilitate or inhibit this process. However, there are a myriad of perspectives with regard to the meaning, sig-

nificance, and interrelation of the terms privacy, security, and health knowledge system, which shall be discussed throughout the chapter.

A Health Knowledge system should aim to integrate and optimise stakeholders' "capacity to act" (Sveiby, 2001) or "capacity to C.A.R.E." (that is, the capacity to deliver in a coordinated fashion the integral Clinical, Administrative, Research and Educational functions of healthcare). The Electronic Patient Record term typically aims to describe the technology or software that stores the record of care or provides a degree of decision support. However, the term "Health Knowledge Management System" aims to better capture or identify the overall system changes required to implement decision support systems, such as changes in underlying processes and the development of a culture that values, respects and protects the acquisition, distribution, production and utilisation of available knowledge in order to achieve better outcomes for patients (Standards Australia, 2001; Wyatt, 2001).

A Health Knowledge Management System should facilitate closing the communication gaps on an ongoing basis, between all the key stakeholders involved in optimising care, GPs, Allied health services (including hospitals), and the often forgotten Patients and their Supports, who all need and should benefit from an improved "capacity to C.A.R.E." The system should also aim to be fast, intuitive, robust, stable, and trustworthy (Orr, 2000).

PRIVACY AND SECURITY

Internationally there is a growing array of privacy and security codes, laws, and standards with many shared core themes (Office of the Privacy Commissioner, 2002; Standards Australia and Standards New Zealand, 2001). However, creating a shared understanding of the essential nature of "Privacy" continues to afford particular challenges, as many of its associated elements are contextual, percep-

Table 1. Health knowledge systems—Closing the C.A.R.E. G.A.P.S. F.I.R.S.T.

C.A.R.E.	**C**linical **A**dministration **R**esearch **E**ducation
G.A.P.S.	**G**eneral Practitioner (primary and community care) **A**llied Health Services (including secondary and tertiary care) **P**atients **S**upports
F.I.R.S.T.	**F**ast **I**ntuitive **R**obust **S**table **T**rustworthy