



**IDEA GROUP PUBLISHING** 701 E. Chocolate Avenue, Suite 200, Hershey PA 17033-1240, USA Tel: 717/533-8845; Fax 717/533-8661; URL-http://www.idea-group.com

This chapter appears in the book, *Clinical Knowledge Management: Opportunities and Challenges*, by Rajeev K. Bali. © 2005, Idea Group Inc.

**Chapter** V

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

Martin Orr, Waitemata District Health Board, New Zealand

## 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.

Copyright © 2005, Idea Group Inc. Copying or distributing in print or electronic forms without written permission of Idea Group Inc. is prohibited.

### 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, significance, 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

C.A.R.E.	Clinical Administration Research Education
G.A.P.S.	General Practitioner (primary and community care) Allied Health Services (including secondary and tertiary care) Patients Supports
F.I.R.S.T.	Fast Intuitive Robust Stable Trustworthy

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

Copyright © 2005, Idea Group Inc. Copying or distributing in print or electronic forms without written permission of Idea Group Inc. is prohibited.

21 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/challenge-privacysecurity-implementation-health/6578

#### **Related Content**

#### Data Mining and Analysis of Lung Cancer

Guoxin Tang (2010). Cases on Health Outcomes and Clinical Data Mining: Studies and Frameworks (pp. 118-144). www.irma-international.org/chapter/data-mining-analysis-lung-cancer/41566

# Exploring Type-and-Identity-Based Proxy Re-Encryption Scheme to Securely Manage Personal Health Records

Luan Ibraimi, Qiang Tang, Pieter Harteland Willem Jonker (2011). *Clinical Technologies: Concepts, Methodologies, Tools and Applications (pp. 391-411).* www.irma-international.org/chapter/exploring-type-identity-based-proxy/53597

#### Visualization and Modelling in Dental Implantology

Ferenc Pongracz (2011). *Clinical Technologies: Concepts, Methodologies, Tools and Applications (pp. 2143-2152).* www.irma-international.org/chapter/visualization-modelling-dental-implantology/53703

#### Quality Control, Quality Assurance, and Business Continuity Plan in PACS

Carrison K.S. Tongand Eric T.T. Wong (2009). *Governance of Picture Archiving and Communications Systems: Data Security and Quality Management of Filmless Radiology (pp.* 123-138).

www.irma-international.org/chapter/quality-control-quality-assurance-business/19326

#### Nursing Informatics History and its Contributions to Nursing Knowledge

Heather Strachan, Peter Murrayand William Scott Erdley (2011). *Evidence-Based Practice in Nursing Informatics: Concepts and Applications (pp. 78-97).* www.irma-international.org/chapter/nursing-informatics-history-its-contributions/48924