# Chapter 64
# Interprofessional Care and Health Care Complexity:
## Factors Shaping Human Resources Effectiveness in Health Information Management

**Kerry Johnson**
*University of Ontario Institute of Technology, Canada*

**Jayshiro Tashiro**
*University of Ontario Institute of Technology, Canada*

## ABSTRACT

*Health care systems are complex and often approach a deterministic chaos in the number and types of interactions that occur among health care providers and patients, as well as among the providers themselves. Such complexity may be an important barrier as North American health care systems are evolving into care-giving settings in which providers work to improve patient outcomes though inter-professional collaborative patient-centred care. The research on evidence-based learning and how to build new models of professional development opportunities for health information management (HIM) professionals is explored. Additionally, creating new and more effective undergraduate training programs in HIM is examined. From the perspective of interprofessional care, the authors provide a core set of interprofessional competencies and discuss how these competencies may be sensibly integrated into, and evaluated within, undergraduate curricular structures as well as professional development programs. A special emphasis of the chapter is an analysis of two case studies that highlight the barriers inherent within complex health care systems. Such barriers inhibit evidence-based education and professional development designed to improve interprofessional care.*

## INTRODUCTION

Recent work on human resources management in health care systems has provided a new model for exploring the complexity of factors leading to ineffective articulation of health care services (Canadian Health Information Management Association, 2009; Gunderson & Holling, 2002; Kabene, Orchard, Howard, Soriano, & Leduc, 2006; Tashiro, Tashiro, & Alvarado-Yule, 2008; Vendome Group, 2007, 2008). Worldwide, health care services could be improved by providing interprofessional collaborative, patient-centred care that improves patient outcomes while reducing health care costs (Health Canada, 2004; Health-Force Ontario, 2007; Institute of Medicine, 2000, 2003a; Oandasan & Barker, 2005). Yet, despite the diverse and extensive literature on change management and human resources management, few empirically based models provide the breadth and depth necessary to deal with the complexities of transforming current health care systems into care planning and delivery systems that are both evidence-based and cost-effective. The model we describe is known as AIM for Health Care – Adaptive Intervention and Management, which has been derived from research on the Adaptive Cycle that was originally developed by ecologists studying temporal and spatial variability in ecosystems (Gunderson & Holling, 2002; and references within).

A version of the Adaptive Intervention and Management model based on modification of the Adaptive Cycle is presented so it can be used as a framework to examine human resources management within health care systems. The specific focus of the chapter is health information management (HIM) environments in health care systems. We use the term "health information management" in the sense proposed by the Canadian Health Information Management Association (CHIMA). CHIMA defines health information management as

*…the discipline that focuses on health care data and the management of health care information, regardless of the medium and format. Research and practice in HIM address the nature, structure and translation of data into usable forms of information for the advancement of health and health care of individuals and populations (Canadian Health Information Management Association, 2009, p. 1).*

The Adaptive Intervention and Management (AIM) model is a powerful tool for examining factors shaping interprofessional collaboration in health care and the critical roles of HIM in planning and delivery of interprofessional care. We have limited our discussions to interprofessional educational and ongoing professional development processes that appear critical for health care workforce preparation, recruitment, and retention within cohesive health teams with strong competencies of collaborative patient-centred care. A central part of our analysis will be the use of case studies that show the power of the AIM model as an evidence-based framework in two examples of human resources management problems in HIM: (1) the interprofessional nature of ICD-10-CA/CCI implementation within a health care facility; and (2) the development of an interprofessional educational core competency framework that could serve as a model for learning maps in novice to expert transition from HIM workforce preparation into ongoing professional development. These two cases will be discussed as discrete problems, but then analyzed more broadly within the context of issues related to: (1) understanding human resources management in the context of transforming health care from an evidence-informed knowledge base in the areas of leadership and change management in health care, (2) patient-centered care, (3) interdisciplinary collaborative practice, (4) health informatics and health information innovation and implementation, (5) workforce preparation, (6) workforce

28 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/interprofessional-care-health-care-complexity/73890

## Related Content

Levels of Abstraction for Behavior Modeling in the GerHome Project
Laura Pomponio, Marc Le Goc, Alain Anfossoand Eric Pascual (2012). *International Journal of E-Health and Medical Communications (pp. 12-28).*
www.irma-international.org/article/levels-abstraction-behavior-modeling-gerhome/70006

Dermatoscopy Using Multi-Layer Perceptron, Convolution Neural Network, and Capsule Network to Differentiate Malignant Melanoma From Benign Nevus
Shamik Tiwari (2021). *International Journal of Healthcare Information Systems and Informatics (pp. 58-73).*
www.irma-international.org/article/dermatoscopy-using-multi-layer-perceptron-convolution-neural-network-and-capsule-network-to-differentiate-malignant-melanoma-from-benign-nevus/269415

Coalitions: The Future of Healthcare in Public Private Partnerships
Erinn N. Harris (2016). *E-Health and Telemedicine: Concepts, Methodologies, Tools, and Applications (pp. 1743-1759).*
www.irma-international.org/chapter/coalitions/138482

Reducing Patient Waiting Time at an Ambulatory Surgical Center
David Ben-Ariehand Chih-Hang Wu (2012). *Management Engineering for Effective Healthcare Delivery: Principles and Applications (pp. 246-260).*
www.irma-international.org/chapter/reducing-patient-waiting-time-ambulatory/56257

New Technology and Implications for Healthcare and Public Health: The Case of Probabilistic Record Linkage
Gulzar H. Shah, Kaveepan Lertwacharaand Anteneh Ayanso (2010). *Healthcare and the Effect of Technology: Developments, Challenges and Advancements (pp. 197-215).*
www.irma-international.org/chapter/new-technology-implications-healthcare-public/42712