

Books & Electronic Media

Creating knowledge-based healthcare organizations

Editors: Nilmini Wickramasinghe, Jatinder N. D. Gupta, Sushil Sharma
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According to the editors, the aim of this book is to increase awareness in the health sector of the need to embrace knowledge management. On the one hand, healthcare is facing the twin challenges of escalating costs and increasing demands for quality. On the other, there is growing recognition that healthcare organizations are knowledge-intensive and that they need to manage their information- and knowledge-bases more effectively. The central message of the book is that by harnessing knowledge management strategies, processes, tools and techniques, healthcare organizations can create greater value by delivering higher quality services more cost effectively.

The book comprises 24 chapters written by 51 authors. It is divided into four sections, which form a logical sequence that moves along the path from concept to practice. The first section (Knowledge management in the healthcare industry) consists of four chapters and begins by introducing knowledge management as a set of principles and processes, before going on to outline the forces in healthcare that are driving

the need to embrace it. The second section (Approaches, frameworks and tools to create knowledge-based healthcare organizations), at nine chapters the longest, introduces an array of knowledge management tools and techniques, and discusses the impact of the internet, the use of data mining and knowledge discovery tools, medical records management, evidence-based medicine, and quality management. Section three (Key issues and concerns of various knowledge management implementations—evidence from practice) consists of six case studies that cover a wide range of healthcare organizations: a national hospital in Japan, telemedicine in New Zealand, a disability service in Australia, public hospitals in Ireland, and the pharmaceutical industry in India. The final section (Managing knowledge as an asset in healthcare organizations) has six chapters, three of which deal with measuring the contribution of knowledge management to business performance.

The main strength of the book is its international approach, covering as it does research and case studies from Asia, Australia, Brazil, India, Ireland, Japan, Netherlands, New Zealand, Republic of Korea, and USA. There is a clear emphasis on systems and process architectures, planning frameworks, and data security. Useful chapters examine the connection between knowledge management and evidence-based medicine, quality management and patient safety.

The book generally presents a sanguine view of knowledge management that highlights the power of technology to manage data and information efficiently. However, managing information is not the same as managing knowledge. Effective knowledge management is highly contingent on a large number of non-technological conditions: the culture of the healthcare organization, the norms and status of different professions, the structure of the healthcare industry, and the regulatory and policy environment. The book could have benefited from a thoughtful consideration of these issues.

Bearing in mind its strengths and limitations, the reader who is looking for a book on knowledge management that relates directly to the healthcare arena, and who is particularly interested in the application of information systems in its support, will be well served by this monograph. ■

Chun Wei Choo¹

Bulletin board: have your say.

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A history of epidemiologic methods and concepts

Editor: Alfredo Morabia

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This enthralling book is divided into two parts. The first part consists of a 125-page essay by Professor Morabia on the evolution of epidemiologic methods and concepts. This essay builds on and provides an introduction to the second part — a series of papers on epidemiology, most of which have been published over the last few years in the journal *Social and Preventive Medicine*.

The extended introductory essay outlines the work of people who contributed to the development and elucidation of epidemiologic methods and concepts. This book is essentially an epidemiologist's view of the development of ideas. The broader task of explaining the development of epidemiology and its connections to society at large is the task of historians of science (see, for example, the book by Vinten-Johansen et al. *Cholera, chloroform, and the science of medicine: a life of John Snow*, published by Oxford University Press in 2003).

Morabia's essay is fascinating. He is one of the very few practising epidemiologists with a deep interest in the history of epidemiologic methods. The particular combination of his interests gives a special credibility to his essay, which describes how epidemiologic thinking has developed from the 18th century around two key ideas: concepts concerned with populations and

group comparisons — the hallmarks of modern epidemiology. Without these two simple ideas, and their integration, we would still be struggling to make causal judgments in epidemiology. And without a strong basis for assigning causality, epidemiology would be powerless. The contributions published in this book demonstrate that epidemiology is continuing to evolve. Morabia asks interesting questions, for example, was Hippocrates an epidemiologist (clearly not) and does the Book of Daniel in the Bible describe the first epidemiologic trial (again, no). He also gives a compelling argument for the late emergence of epidemiology — most likely because it was dependent on the development of the idea of probability.

The papers in the second part deal with material that will be familiar to most epidemiologists and covers ground ranging from Snow and Farr to the history of study designs, bias, confounding and causality. Richard Doll writes lucidly on the history of cohort studies, and a study of recent textbooks illustrates how new epidemiology is as a discipline and how its fundamental ideas have evolved rapidly over the last half century.

The justification proposed for the book is the idea — perhaps difficult to examine formally — that epidemiologists will be better scientists if they are aware of the origins of the ideas they use and how these ideas have evolved. The editor proposes that the book will be of interest to epidemiology students. Certainly, it will resonate with many post-graduate students though I doubt whether the average participant in a basic epidemiology course will engage with more than a few of the ideas presented.

The ideas aired in this book are of more than just of academic interest. However, we need to understand much more about how these ideas have been put to good use. I encourage Morabia for his next project to go beyond methodological considerations and consider the applications of epidemiology to efforts to improve population health. ■

Robert Beaglehole¹

Letters

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