For the better part of the twentieth century, and now into the twenty-first century, the United States has been recognized as having one of the world’s best healthcare systems in terms of its use of leading edge techniques, technologies and application of the latest medical findings to healthcare delivery (Starr, 1982; Kongstvedt, 1994). Looking at the miraculous cures, incredible surgical feats, control of infectious disease, and other aspects of American medicine, it is difficult to dispute the claim. But there is another story when one looks at the health of the nation’s urban poor. The healthcare system in the United States seems to hardly touch many of the most vulnerable individuals and communities. Additionally, when medical care is delivered, it is often inadequate to meet the complex health, social, economic, educational, and environmental needs of inner-city urban residents.

The paradox of the modern American medical system is that, although it has an unparalleled capacity to treat and repair (particularly with regard to trauma and infectious disease), it is often ill-prepared to prevent illness, especially within the complex context of the urban environment. Although this contradiction has implications for the entire American population, its impact is greatest for those with the fewest resources, including, and oftentimes most especially, the urban poor. For inner-city residents who often live close to large academic health centres, the paradox is all the more acute. Even though the “best care in the world” may literally be right next door, poor urban residents experience some of the worst health conditions, live in some of the least-healthy environments, and have some of the worst health indices of any population group in the nation - in some instances comparable to those found in developing nations.

It is important to stress that such problems are not restricted to the USA – the issues are replicated in countries throughout the world (the International Conference on Urban Health held in Baltimore (31 Oct–2 Nov 2007)) testifies to this. Quality care of patients requires the evaluation of considerable amounts of data at the right time and right place and in the correct context. These clinical, administrative and operational sources of data are typically kept in separate and disparate operational repositories. With the advent of the electronic health record, these data warehouses will provide data and information at the point of care and provide for a continuous learning environment in which lessons learned can provide updates to clinical, administrative and financial processes. What becomes crucial in such a context is
the identification of relevant data, pertinent information and germane knowledge to support rapid and superior healthcare decision making (Wickramasinghe et al., 2009). Given the advancement of the information tools and techniques of today’s knowledge economy, it is imperative that these tools and techniques be appropriately utilized to enable and facilitate the identification and evaluation of these knowledge assets. To do this effectively and efficiently it is imperative that healthcare incorporates the principles of Knowledge Management (KM).

This book then, serves to explore and explain the nature of essential KM principles in a manner applicable to the problems of urban health. Accessibility and usability in this manner would be of use to both students and professionals wishing to learn more about the key aspects of urban health knowledge as they pertain to effecting superior healthcare delivery. The book provides readers with an understanding of approaches to knowledge and knowledge management by examining the purpose and nature of its key components. The rationale of the text is the first demystify the KM field by explaining in an accessible manner the key concepts of KM tools, strategies and techniques, and then clearly identify the benefits of incorporating KM into contemporary urban health issues. The text will demonstrate how, with practice and understanding, its key precepts can be appropriately applied to the domain of urban healthcare.

Many KM texts suffer from pitching theoretical issues at too technical or high a level, or from presenting a theoretical prescriptive treatment of knowledge or KM modelling “problems”. It is hard to find a text that approaches the topic from the more versatile “twin” perspectives of both academia and practitioner. The market needs a book which is sensitive to such issues and which can provide readers with approaches to managing and developing KM that is underpinned by theory and research, which is integrative in nature and which addresses softer approaches in manifesting and recognising knowledge. Moreover, given that urban healthcare professionals are incredibly busy people, what is essential for them is to have a book that provides the essence of KM for superior urban health delivery. This will enable them to grasp the key points quickly and more importantly be able to implement effective KM strategies and techniques into urban health operations. Examples of such strategies and techniques include:

(a) Diagnosing complex diseases and then deciding upon an appropriate treatment strategy: the urban health professional must sort through multi-spectral data and various information sources. By incorporating the various tools of KM, eg. sorting and searching tools as well as decision-making tools, it is possible to search large databases and electronic repositories to access the relevant information and pertinent data required to make a more informed and thus better decision after careful evaluation of critical knowledge

(b) A computerised medical record represents a document that provides the user: typically an urban health professional, with specific and important information pertaining to a patient from which (s)he can then make further healthcare treatment recommendations. By incorporating various KM tools and techniques (including drill down, connectivity to a healthcare portal as well as searching),
it is possible to transform a relatively static computerised medical record into an intelligent knowledge repository from which the urban health provider can make better decisions pertaining to treatment issues.

(c) Developing appropriate utilisation usage criteria which impact on reimbursement for urban health funds and urban health professionals, it is necessary to process large amounts of disparate data and analyse trends. In order to develop accurate utilisation levels, it is of paramount importance that the tools and techniques offered by KM are applied.

The format for the book is as follows:

**Part I: KM and Urban Health**

The first part of this book attempts to introduce and underscore the major challenges that one is confronted with in an urban health context and how the tools, technologies, tactics and techniques of KM might facilitate successful and superior healthcare delivery in such a challenging environment.

Chapter 1: Knowledge Management for the Urban Health Context by Gibbons, Bali and Wickramasinghe serves to introduce the key challenges faced in urban healthcare and how and why the tools, techniques, tactics and technologies of knowledge management might facilitate superior healthcare delivery for urban healthcare.

Chapter 2: Healthcare Knowledge Management: Incorporating the Tools, Technologies, Strategies and Processes of KM to Effect Superior Healthcare Delivery by Wickramasinghe provides a comprehensive coverage of all the major areas within KM and how they can be harnessed to facilitate superior healthcare delivery. The chapter provides case vignettes to highlight key issues.

Chapter 3: Knowledge Management in the Urban Health Context: Moving Towards Tacit-to-Tacit Knowledge Transfer by Bali, Baskaran and Naguib focuses attention most especially to overcoming knowledge gaps in urban healthcare settings with tacit-to-tacit knowledge transfer.

**Part II: Incorporating KM Principles into Urban Health Contexts**

This second part serves to provide the reader with a miscellany of chapters that discuss numerous instances in which incorporating KM principles into an urban health context has indeed enabled superior healthcare delivery. Of particular note, is that these chapters cover instances in different countries be it Australia or US, countries in Europe, Asia and Africa as well as a variety of different urban populations ranging from children to the elderly. In so doing, we try to emphasise both the
breadth of urban health contexts and the universal benefits of KM principles when applied in any of these contexts.

Chapter 4: A Childhood/Adolescent Knowledge Management System for Urban Area Health Programs in the District of Columbia by Popovich and Zhang. This chapter focuses on the benefits of incorporating a knowledge framework to support urban health care objectives in the District of Columbia with a particular focus on children and adolescent populations.

Chapter 5: Urban Health in Developing Countries by Agarwal, Srivastava and Kumar. The need and benefit of appropriate KM systems to ameliorate the numerous challenges and problems in urban health settings in developing countries is the central theme of this chapter.

Chapter 6: A Pervasive Wireless Knowledge Management Solution to Address Urban Health Inequalities with Indigenous Australians by Wickramasinghe, Troshani and Goldberg. By incorporating a knowledge based solution the authors outline, in this chapter, how urban health inequalities and disparities can be addressed and resolved.

Chapter 7: The Development of a Framework to Evaluate the Management of HIV/AIDS Programmes in Rural and Urban South Africa by Sassman, Lehaney, Bali, Naguib and Marshall. This chapter discusses the development of a framework grounded in the principles of KM to address the HIV/AIDS crisis in South Africa.

Chapter 8: The Potential of Serious Games for Combating Health Inequalities by Gibbons, Bali, Marshall, Naguib and Wickramasinghe. He use of games to facilitate education and understanding of healthcare issues for various groups from the very young to the very old in an urban context is the focus of this chapter. While KM is not explicitly stated throughout the chapter, without the tools techniques, tactics and technologies of KM it would not be possible to design and develop appropriate games nor would it be possible to effect the necessary knowledge transfer. Hence KM is an integral key success factor in this context.

Part III: Measures and Metrics for KM and Urban Health

This final part of the book attempts to develop and discuss possible measures and metrics. Improvement is only possible if we can objectively examine the current situation, extract appropriate lessons and apply these to the future state. By attempting to develop possible measures and metrics we are attempting to ensure that continuous improvement is also supported and fostered. Continuous improvement and learning are central themes in KM and we believe that if these themes are transferred into applications of KM principles in Urban Health settings we will indeed realise superior healthcare delivery in these instances.

Chapter 9: A Scalable and Viable Strategy for Managing Organizing: Typology for Intervening into Complex Healthcare Environments for Enhancing Continual Development by Saito. This chapter presents an approach for classifying, modelling and managing complex urban healthcare environments.
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Chapter 10: Amplifying Resonance in Organizational Learning Process: Knowledge Sharing for Overcoming Cognitive Barriers and for Assuring Positive Action by Saito. This chapter serves to model critical learning process in urban healthcare environments and by doing so noting how to overcome numerous cognitive barriers.

Chapter 11: Developing New Urban Health Metrics to Reduce the Know-Do Gap in Public Health by Castillo-Salgado and Gibbons. This chapter delineates how KM is integral in the development of new and superior metrics to facilitate superior public health delivery.

Chapter 12: Recommendations on Evaluation and Development of Useful Metrics for Urban Health by Castillo-Salgado and Gibbons. The development of useful metrics for evaluating and enhancing urban communities is the central focus in this chapter.

Chapter 13: Making Sense of Urban Health Knowledge by Bali, Baskaran, Gibbons and Wickramasinghe. The final chapter of this book provides a summary of the role for the principles of KM in Urban Health contexts and how we should move forward when we try to incorporate these KM principles to whatever Urban Health context may confront us.

After extensive discussions and focus groups with public and urban health professionals, students (past and present), conference and workshop delegates, business managers and leading academics, it is apparent that there is a need for an accessible yet functional text in this area, one that incorporates valuable insights from all stakeholders. We have endeavoured to meet this need with our book Urban Health Knowledge Management and hope that our readers will find the following pages useful and beneficial as they attempt to address the challenges in Urban Health Contexts.

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