Chapter 1
Introduction

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Cancer is a growing healthcare problem worldwide with significant public health and economic burden to both developed and developing countries. According to the World Health Organization, cancer is the second leading cause of death globally, with an estimated 20 million new cancer cases and 10 million cancer deaths in 2020. The International Agency for Cancer Research (IARC) estimates that globally one in five people will develop cancer in their lifetime. Low- and middle-income countries have been disproportionately affected by the rise of cancer incidence and account for approximately 70% of global cancer deaths. At the same time, substantial innovations in screening, diagnosis, and treatment of cancer have improved patient outcomes; global age-standardized cancer death rates showed a 17% decline from 1990 to 2016.

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Cancer care has evolved to become highly specialized and increasingly complex not only pertaining to care setup and delivery, but also diagnostics and therapeutics. In addition, the influx of novel therapies such as targeted therapy, biologics, cellular and gene therapies, the need for advanced support systems such as advanced pathology, radiology, and radiation therapy, and the requirement for integrated multidisciplinary delivery of care had contributed to the progressive increase in the costs of cancer care both direct expenditures related to infrastructure and provision of care from a societal perspective, as well as indirect costs due to loss of productivity at an individual level. Presently, many hospitals and cancer centers may not have a well-established and integrated setup for comprehensive and cost-effective oncology care.

The objective of this book is to provide guidance to hospitals, institutions, and health authorities worldwide to develop a comprehensive cancer care plan; and to assist cancer centers with upgrading their existing infrastructure, practice standards, policies, and procedures in line with contemporary and highest international standards for cancer care delivery, in a sustainable and cost-effective manner.

Each chapter tackles an aspect felt by the editors to be critical in the design of such centers especially as these are developed in low- to middle-income countries. The contents of this book are applicable at a global level and do cover broad aspects related to the overall organizational structure of a comprehensive cancer center, including inpatient and outpatient services, pharmacy and laboratory requirements, radiation therapy, psychosocial support and palliative care, among others. The book also covers staff training, quality and data management, and overall administration including finance and strategic planning. One chapter is specifically dedicated to cancer management for a center with restricted resources.

Inequality and disparities in healthcare between higher and lower resource settings is well known. The authors and the editors hope that this book will help bridge some of the inequalities and that a more comprehensive cancer center will lead to better outcomes for cancer patients. The information provided by the book shall serve as a backbone to assist centers obtain necessary resources to provide the best possible cancer care. We are pleased to be able to offer this book to the community and look forward to developing more best practices as we go forward in tackling these diseases.