



Cancer systems and control for health professionals

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**Cancer
Systems and Control
for Health Professionals**



Union for International
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Cancer Systems and Control for Health Professionals

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This edition first published 2025 © 2025 UICC
Published 2025 by John Wiley & Sons, Ltd.

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Library of Congress Cataloging-in-Publication Data Applied for

Paperback ISBN: 9781394191338

Cover Design: UICC & Motherbird

Cover Image: © Goodboy Picture Company/Getty Images

Set in 9.25/12pt Joanna MT by Straive, Pondicherry, India

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Zuzanna Tittenbrun

Zuzanna Tittenbrun, MSc, MA, is a Global Resources Manager at the Knowledge, Advocacy and Policy team of the Union for International Cancer Control (UICC). She works in the area of cancer staging managing UICC's flagship Tumour, Node, Metastases Project that publishes UICC TNM Classification of Malignant Tumours. She also works in cancer control planning, managing a web portal of the International Cancer Control Partnership (ICCP) which serves as a repository of publicly available national cancer control plans. Before joining UICC, Zuzanna worked for the Nobel Peace Prize laureate International Campaign to Ban Landmines – Cluster Munitions Coalition coordinating civil society's presence in the humanitarian disarmament arena. She holds a Master of Arts in Cultural Studies and Foreign Languages and a Master of Science in Global Health Policy at The London School of Hygiene & Tropical Medicine.

Foreword

The ambition of the project that is this book is matched only by the degree of success in the breadth of its scope and the excellence of the presentation. *Cancer Systems and Control for Health Professionals* sets out to address this Herculean task through the development of seven sections containing 30 chapters by a set of international experts. The simplicity of the title belies the complexity of the problem, which is dissected not only by focusing on cancer as a disease but also by demonstrating with clarity that it represents a perturbation that is both biological as well as social. It places cancer, as so many of the authors state, within an ecosystem that must take account of the political economy of societies and even ventures to address that economy as not only national in scope. Readers will welcome the centrality of equity as an overriding principle in cancer control; it is refreshing to see the reference point for the inequality that results in inequity running the gamut from the social situation through gender and race among other factors.

One of the strong points of the book is that some of the presentations lead the reader to be optimistic about the possibility of a 'brave new world' in which appropriate data and its transformation through new technologies into information will be so omnipresent that they will reduce some of the inequities that now exist in cancer control. Of course, the possibility is not denied that because of their sophistication these new technologies will accentuate the problem for people and communities less well-endowed for reasons beyond their control.

It would not have been surprising had this book outlined the magnitude of the problem and established the basis for advocacy but not pointed towards possible advocates. Yet the book is clear that there is a role for a wide range of health professionals and, dare I add, other people with an interest in health to be advocates for the propositions it outlines. It evokes the aptness of Rudolf Virchow's famous claim that doctors are the natural advocates for the problems of the poor and disadvantaged. I was also pleased to see that the book does not entertain the false dichotomy of the individual versus the population-based approach. It articulates clearly the imperative of specialised cancer care centres as well as interventions at the population level.

I recommend this book highly as a fascinating exposition of the many and varied facets of cancer control and the different aspects of the systems that must be explored for improvement on the status quo.

Sir George Alleyne
May 2024

Preface

Cancer, a pervasive global health challenge, affects millions of people worldwide, yet access to comprehensive cancer care remains unequal on a global scale. Addressing cancer's multifaceted nature necessitates a systems approach to this very complex set of diseases. In addition to an interdisciplinary approach that integrates insights from all disciplines of medicine, it also needs input from diverse fields such as education, technology, public health, health policy and advocacy. Cancer care is delivered within a comprehensive ecosystem that should be understood by those working within a health system as well as by those who are the recipients of health interventions.

This book, *Cancer Systems and Control for Health Professionals*, is a scholarly endeavour to bridge the disciplinary divides inherent in cancer care and to serve as a definitive resource for both clinicians and researchers. Its distinguishing feature lies in its systematic exploration of cancer through a holistic lens, emphasizing systems-level understanding and the application of cancer control theory principles to address its complexities.

Central to this book is an exploration of the intricate interplay between social determinants of health, health economics and cancer control strategies. The authors underscore the urgency of addressing structural barriers to foster health equity, positioning cancer care within broader sociopolitical contexts. Moreover, the critical role of data management practices in advancing cancer control efforts is explored, alongside the transformative potential of emerging technologies such as artificial intelligence and quantum computing. Education is presented as a cornerstone in the advancement of cancer care, nurturing a cadre of healthcare professionals equipped with the requisite knowledge and skills to navigate the intricate landscape of oncology effectively.

Through the lens of systems thinking, readers are invited to appreciate the complex interactions of patients, caregivers, cancer biology, health policy and health human resources. *Cancer Systems and Control for Health Professionals* represents a needed contribution to the field, offering a unique comprehensive synthesis of knowledge across disciplines and illuminating novel avenues for cancer control. It is our collective aspiration that this book will serve as a guide to improve cancer control globally.

Meredith Giuliani

Section 1

Cancer Systems, Services and Policy

Richard Sullivan

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The political scientist John Kingdom saw the need to move beyond technocentric approaches of policymaking into a more process-oriented discourse centred on policy, politics and problem sets. This section seeks to highlight some of the critical contemporary domains framed in this manner within global cancer.

Sullivan and Pramesh begin by exploring the political dimensions of global cancer, particularly through a political economy lens. In seeking to understand how cancer services and systems operate, they examine the nature of power as part of a wider political discourse. Unpicking these dimensions means examining the nature of power and politics not just at the national level but also in terms of supra-national actors that influence and affect global cancer. By bringing in the economic perspective, the politics of cancer can be analysed and understood through the macroeconomic lens of allocation and distribution.

In framing global cancer as a complex adaptive systems problem, Borrás, Prades and Espinas dissect out the system-level thinking that is required for national and supra-national policy to adequately reflect and address the myriad of contemporary issues. They challenge the purely technical approach to cancer policy by injecting the importance of systems analysis – actor-network, emergence – into core policy pillars such as leadership and governance. Systems-level policy analysis provides a deeper and more robust conceptual basis to understand cancer's hierarchical interactions, dynamic changes and self-organisation in the face of external stresses.

Skelton and Dewachi take the idea of systems further by fundamentally challenging how we understand traditional cancer services and systems through normative hierarchical referral within national boundaries. They illuminate how many patients now use novel therapeutic geographies, often across national borders, to seek care, especially those impacted by conflict. These realities challenge the domination of traditional epidemiology and demography to adequately describe the cancer landscape. Instead, they talk to the need for deeper social science methodologies, particularly applied anthropology in policy research.

Finally, McLeod and Aggarwal tackle one of the most important pillars in the cancer policy systems landscape – quality – through a critical Donabedian lens. Their discourse provides a wide vista on the most significant policy issues and tools facing national cancer planning to deliver high-quality services, from choice and competition through to the application of health technology assessments. These interlocking issues and tools also illuminate the policy dimensions of the structural determinants of quality in cancer, for example human resources.

Overall, the section provides a multi-layered exploration of the critical issues in contemporary global cancer policy, but inevitably leaves out some key domains that the reader can and should explore, for example cancer within the context of development, the wide-ranging issues of governance and legislation, as well as the specificities of individual countries and regions.