A COMPREHENSIVE GUIDE TO HEALTHCARE QUALITY

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A Comprehensive Guide to Healthcare Quality

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Dedication

To the souls of my beloved parents, whose continuous prayers to Allah Almighty for my success guided and blessed me through every step of my life. Their sacrifices in providing me with the best education, enrolling me in the best schools, and their relentless encouragement throughout my academic journey shaped who I am today.

To my country, the holy land of the Kingdom of Saudi Arabia, to leaders, policymakers, healthcare professionals, providers, and students.

And finally, to my wonderful children Abdulrahman and his siblings, my family, whose love and joy inspired me.

With deepest gratitude,

Dr. Asaad bin Abdulrahman Abduljawad

Acknowledgements

I would like to extend my deepest gratitude to His Excellency Professor A. F. Al-Assaf, MD, MPH, Distinguished Presidential and Regents' Professor Emeritus at the University of Oklahoma and Executive Director of the American Institute for Healthcare Quality. His exceptional mentorship, unwavering guidance, and invaluable support have been instrumental in the completion of this book.

Professor Al-Assaf's expertise in public health, medical quality, and patient safety has profoundly influenced my work. His meticulous review of all the chapters, insightful suggestions, and assistance in refining the content have significantly enhanced the quality of this book. The idea of writing this book was inspired by his visionary approach, and I am honored to follow in his footsteps.

Thank you, Professor Al-Assaf, for your dedication and for being a pillar of knowledge and inspiration.

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Kingdom of Saudi Arabia
Saudi Health Council
Saudi Central Board for Accreditation
of Healthcare Institutions

CBAHI

المملكة العربية السعودية
المجلس الصحي السعودي
المركز السعودي لاعتماد المنشآت الصحية
(٤٥٦)

Foreword

It is with great pleasure that I endorse "A Comprehensive Guide to Healthcare Quality" authored by H.E. Dr. Asaad bin Abdulrahman Abduljawad. This book is a testament to the profound commitment to excellence in healthcare that we strive for at the Saudi Central Board for Accreditation of Healthcare Institutions (CBAHI).

In an era where the quality of healthcare services is paramount, this comprehensive guide serves as an invaluable resource for healthcare students, healthcare professionals, administrators, and policymakers. Dr. Abduljawad's extensive experience and deep understanding of healthcare quality and patient safety are evident throughout the pages of this book. His ability to distill complex concepts into practical, actionable strategies makes this work an essential tool for anyone dedicated to improving healthcare outcomes.

The topics covered in this book, ranging from strategic planning, risk management, and patient safety to performance measures and regulatory compliance, provide a holistic view of the multifaceted nature of healthcare quality. Each chapter is meticulously crafted to offer insights and guidance that are both relevant and timely, reflecting the latest advancements and best practices in the field.

As the Director General of CBAHI, I have witnessed firsthand the transformative impact that a focus on quality can have on healthcare institutions. This book not only underscores the importance of quality and safety but also equips readers with the knowledge and tools necessary to drive continuous improvement in their organizations.

I commend Dr. Abduljawad for his dedication in educating, training, and professionally advancing healthcare quality and patient safety in the Kingdom of Saudi Arabia, and for providing this comprehensive guide that will undoubtedly serve as a cornerstone for healthcare professionals striving for excellence. It is my hope that this book will inspire and empower its readers to achieve the highest standards of care, ultimately benefiting patients and communities across the globe.

Sincerely,

Dr. Salem bin Abdullah Al-Wahabi
Director General of the Saudi Central Board for Accreditation of Healthcare Institutions (CBAHI)

Preface

I cannot start out talking about quality without referring to a true leader's quote Prophet Mohammed PBUH says: "Verily, GOD almighty loves that when anyone of you does a job, he should perfect it.". The pursuit of healthcare quality is a journey that requires dedication, knowledge, and a commitment to continuous improvement. Over the years, I have had the privilege of teaching medical and public health students, graduate students at the University of Oklahoma Health Sciences Center (OUHSC), and undergraduate students at Umm Al-Qura University. Additionally, I have taught medical residents and fellows in the Saudi Board of Preventive Medicine, and served as an item writer for the Saudi Medical Licensing Exam and Professional Licensing Exams at the Saudi Commission for Healthcare Specialties.

My professional journey has included working with the Veteran Affairs, Integris Health System, and Mercy Hospitals in Oklahoma during my Master's and doctoral studies. I completed my postdoctoral fellowship in healthcare quality and patient safety with Baylor, Texas A&M in Dallas, and earned certifications from the STEEEP Academy at Baylor Scott & White. I also became a Lean Leader from Integris Health System in Oklahoma City, obtained a Green Belt in Healthcare Lean Six Sigma from the College of Engineering at the University of Michigan, Ann Arbor, and received a CHQ certificate from the University of Oklahoma. Additionally, I work as a consultant with AGI Consulting, USA, and completed executive leadership training at the Harvard School of Public Health in Boston, MA.

I have had the honor of serving as the Dean of the College of Health Sciences at Umm Al-Qura University in Saudi Arabia and the Dean of International Affairs at the American Institute for Healthcare Quality (AIHQ) in the United States of America. My work has extended internationally, consulting with Accreditation Kazakhstan and heading the training committee at the Central Asian Council. Additionally, I have worked as a trainer with the Saudi Patient Safety Center and as an executive

advisor at the Saudi Electronic University and the Saudi Commission for Healthcare Specialties.

These diverse experiences have provided me with a comprehensive understanding of the challenges and opportunities in healthcare quality. It is this wealth of knowledge and practical experience that I aim to share through this book. “A Comprehensive Guide to Healthcare Quality” is designed as an outline for professionals who need time to study and remember the key points from my lectures. This book is dedicated to providing clear applications and simplified examples to effectively convey key concepts, ensuring that my students and readers can gain enjoyment and interest in the subject.

Introduction

Ensuring high standards of healthcare quality is both a challenge and a necessity in today's complex and dynamic healthcare environment. This book, "A Comprehensive Guide to Healthcare Quality," is designed to serve as a valuable resource for healthcare professionals, administrators, and students who are passionate about enhancing the quality of care provided to patients.

Healthcare quality encompasses a wide range of concepts, from the structural aspects of healthcare facilities to the intricate details of patient safety and performance measurement. Each chapter in this book addresses a critical component of healthcare quality, providing readers with a thorough understanding of the principles and practices that drive excellence in this field.

Chapter Outline

Chapter 1: Hospitals and Healthcare Facilities

This chapter introduces the different types of healthcare institutions, including long-term care, primary care, ambulatory care, home health, and behavioral health. It also discusses the levels of care: primary, secondary, tertiary, and quaternary.

Chapter 2: Leadership

Explores the comparison between leadership and management, examining various types and styles of leadership that are essential in healthcare settings.

Chapter 3: Quality Concepts and Gurus

Traces the evolution of quality and healthcare quality, highlighting the contributions of key figures and the development of quality concepts over time.

Chapter 4: Strategic Planning

Provides an overview of the basics of healthcare strategic planning, including SWOT analysis, mission, vision, values, and examples. It also discusses organizational charts and the roles within healthcare organizations.

Chapter 5: Health Directives

Examines the importance of policies, procedures, pathways, guidelines, protocols, algorithms, and standard operating procedures (SOPs) in maintaining healthcare quality.

Chapter 6: Performance Measures

Focuses on measuring quality through Key Performance Indicators (KPIs), providing examples from various medical disciplines.

Chapter 7: Patient Safety

Addresses patient safety, discussing seminal works such as the Institute of Medicine's "Crossing the Quality Chasm" and "To Err is Human." It also covers Reason's Swiss Cheese Model, types of clinical errors, Root Cause Analysis (RCA), and Failure Modes and Effects Analysis (FMEA).

Chapter 8: Quality Tools

Introduces various tools used in quality improvement initiatives, including brainstorming, multi-voting, process mapping, Pareto charts, histograms, bar charts, pie charts, run charts, and the concepts of common cause and special cause variation.

Chapter 9: Quantitative Analysis

Covers essential statistical methods such as sampling, mean, mode, median, variance, standard deviation, central tendency, normal distribution, t-tests, ANOVA, and linear regression. These methods are crucial for analyzing healthcare data and supporting evidence-based decision-making.

Chapter 10: Quality and Process Improvement

Discusses change management and quality improvement methodologies such as PDCA (Plan-Do-Check-Act), FOCUS PDCA, Lean, and Six Sigma.

Chapter 11: Team Management

Explores the dynamics of groups and team building, outlining the steps necessary to create and lead effective teams in healthcare settings.

Chapter 12: Healthcare Regulatory and Compliance

Reviews the processes of licensing, certification, credentialing, privileging, and accreditation, along with the roles of accrediting bodies in ensuring healthcare quality.

Chapter 13: Health Information Management

Covers the management of electronic medical records (EMR) and electronic health records (EHR), the structure of computers, and the concepts of sensitivity, specificity, and the 2x2 contingency table.

Chapter 14: Risk Management

Provides an introduction to the basics of risk management, emphasizing the identification, assessment, and mitigation of risks in healthcare to ensure the safety and well-being of patients and staff.

This book is designed to be a comprehensive resource that equips readers with the knowledge and skills necessary to excel in the field of healthcare quality. It is my hope that this guide will serve as a valuable tool for those dedicated to improving healthcare systems and outcomes.

Truly,
Dr. Asaad bin Abdulrahman Abduljawad

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