INTRODUCTION TO HEALTHCARE QUALITY MANAGEMENT

SECOND EDITION

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The old adage “The only constant is change” was true for the healthcare industry when I started my career many years ago, and it is true today. The pace of change has certainly picked up in the past few years, which brings unique challenges to staying well informed about new regulations, patient care recommendations, new technologies, and innovations.

Mental overload is the new norm. How do individuals react when they are overwhelmed by too much information? Studies in the discipline of cognitive psychology indicate that overload causes people to develop tunnel vision. They lose their view of the big picture as their attention is narrowed to one issue or one task—seeing the world as if through a soda straw. Tunnel vision is the mind’s biological response to encountering too much information. Regardless of how good we presume ourselves to be at multitasking, our working memory can only concentrate on one thing at a time. This book provides readers with the opportunity to focus on one fundamental topic: how healthcare quality is measured, evaluated, and improved. Once this learning has been assimilated into your long-term memory (your personal knowledge database), it will be there for retrieval whenever you need it.

This second edition of Introduction to Healthcare Quality Management is a culmination of my more than 30 years of experience as a hospital quality director, trainer, and consultant for other quality professionals and instructor of undergraduate- and graduate-level...
healthcare quality courses. Improvement fads, and the quality gurus who advocate their use, have come and gone; the cycle will surely repeat itself long after I’ve retired. In this book I’ve stuck to the basics—the foundational principles and techniques common to any healthcare quality initiative. Once they have mastered these basics, students of quality management will be able to adapt to whatever model of quality comes along. For individuals seeking advanced degrees, this book is a starting place for expanded learning.

This book is directed to people with little or no clinical healthcare experience. The case studies and illustrations focus primarily on the provision of health services rather than the diagnosis and treatment of patients. Clinical discussions are accompanied by explanatory text to clarify terminology or situations that may be unfamiliar to students. The websites listed at the end of each chapter point readers to advanced learning resources (up to date as of this writing), including additional clinical quality management examples.

Throughout my years of teaching quality management to beginners, I’ve found that vocabulary can be a barrier to learning. Simple concepts, such as measuring patient complication rates, may be tricky to understand if students have had little healthcare experience. To help overcome this barrier, the textbook introduces many of the concepts by using analogies from everyday life. Once students see the link between what they know and do almost every day and the basic quality concepts, they begin to understand related healthcare quality principles and techniques. While the analogies may seem simplistic, they often help the novice unravel the vagaries of healthcare quality management.

**Content Overview**

The book begins with a chapter on the attributes of quality and factors that affect consumer perceptions of quality. The notion of value—quality at a reasonable cost—is introduced with an explanation of how perceived value influences purchasing decisions. Students learn the Institute of Medicine’s definition of healthcare quality and the quality characteristics expected in high-performing healthcare organizations. How these quality characteristics are measured and improved is reinforced throughout the remainder of the book.

Chapter 2 offers a description of the interrelated elements of quality management: measurement, assessment, and improvement. This trilogy provides a framework on which subsequent chapters build. The chapter continues with a discussion of the science of quality and its application in healthcare organizations. Students are introduced to the work of Walter Shewhart, W. Edwards Deming, and other quality pioneers of the manufacturing industry. Healthcare organizations, which have been slow to adopt statistical process control techniques, are beginning to rival those in other industries in their application of quality management tools. The background behind these quality management advances is presented to help students grasp subjects covered in later chapters. Chapter 2 concludes with a summary of external forces that influence healthcare quality management activities.
Chapters 3 through 7 provide step-by-step descriptions of how healthcare quality is measured, assessed, and improved. Chapter 3 begins with an overview of quality measurement. The three measurement categories—structure, process, and outcome—are introduced and explained through numerous examples from a variety of healthcare settings. Also covered are methods for choosing performance measures and constructing measures that yield worthwhile information. Most important, this chapter introduces students to a critical element of clinical quality management: measurement of clinical decision making using evidence-based guidelines.

Measurement is only the first step in quality management. The measurement results must be evaluated to determine whether performance is acceptable. Performance assessment, the second component of quality management, is covered in Chapter 4. Methods for effective display and communication of data are introduced and two report formats—snapshot and trend—are discussed. Appropriate uses for each type of report and evaluation of results against performance expectations are demonstrated through case studies. Chapter 4 then provides an overview of statistical process control techniques, which are gaining popularity among healthcare organizations as a means of evaluating performance. The impact of unnecessary process variation on quality, methods of measuring variation, and ways measurement can be used to control variation are also discussed. The chapter concludes with a discussion of the factors involved in the next step of quality management—assessing whether to proceed with an improvement initiative or to continue measuring.

The decision to improve performance sets in motion an improvement initiative. The next step is to determine which improvement process to follow. No standard process exists for improving performance. Shewhart’s Plan-Do-Check-Act (PDCA) cycle of improvement has been modified and adapted many times since its introduction in the 1920s. Chapter 5 acquaints students with the PDCA model and other frameworks commonly used in improvement initiatives. It describes the primary purpose of each model and the differences between and similarities among them. Most important, this chapter emphasizes the need for a systematic approach to healthcare quality initiatives. Several project examples take students through the steps of methodical process improvement.

Throughout the steps of a process improvement initiative, many decisions must be made. How wide is the gap between expected and actual performance? What factors are causing undesirable performance? Which problems take priority? How can the process be changed to improve performance? The answers to these questions are gathered through the use of quality improvement tools. Some of these tools are quantitative—similar to the graphs and displays discussed in Chapter 4—and some are qualitative—for example, nominal group technique, cause-and-effect diagrams, and flowcharts. Chapter 6 introduces 14 qualitative tools commonly used in improvement initiatives. Practical examples and case studies provide students with the knowledge to apply these tools in real-life situations. In Chapter 7, students learn how improvement teams are formed and managed.
Two characteristics of high-quality patient care—safety and effectiveness—are particularly important in today’s performance-oriented, cost-conscious environment. A complete chapter is devoted to each subject. Chapter 8 begins with a discussion of the factors prompting increased public scrutiny of the safety of healthcare services. Using the measurement, assessment, and improvement framework, the chapter demonstrates how patient safety is evaluated and improved. Of particular importance are two safety improvement tools: (1) failure mode and effects analysis and (2) root cause analysis. Students of quality management should remember that they, too, are recipients of healthcare services; at the conclusion of this chapter, they discover what they can do as patients to protect themselves from potentially harmful medical mistakes.

Chapter 9 provides more detail on how to accomplish the important goal of achieving high-quality, reliable performance in healthcare. Because healthcare processes are not well designed, people’s vigilance and hard work are often relied on to ensure good performance. A better way to advance quality is to apply human factors and reliability science principles. In this chapter, students are introduced to techniques for improving processes—used for years in other industries and now being successfully applied in the healthcare environment—so failures can be reduced and reliable quality can be realized.

Quality improvement and cost control depend on the organization’s ability to reduce underuse and overuse of healthcare services. Utilization management activities, described in Chapter 10, are undertaken by healthcare organizations to determine whether they are using resources appropriately. The chapter reveals tactics that purchasers and providers use to prospectively, concurrently, and retrospectively ensure effective use of healthcare services. A systematic approach is needed to control resource use without compromising the quality of patient care. This structured approach is also covered in Chapter 10.

Healthcare quality is not produced in a vacuum. Organization-wide commitment and an adequately supported infrastructure are essential to achieving performance excellence. Chapter 11 introduces the contributors vital to the success of a quality program, and it details elements of a planned and systematic improvement approach. Most important, Chapter 11 emphasizes the role of a supportive organizational culture in the quality process and concludes with a discussion of cultural factors that can advance or inhibit achievement of quality goals.

**Supplemental and Instructional Resources**

Each chapter concludes with student discussion questions. Some questions encourage contemplation and further dialogue on select topics, and some give students a chance to apply the knowledge they have gained. Others promote continued learning through discovery and use of information available on the Internet. I hope that, on completion of each chapter, students feel compelled to address the discussion questions to expand their learning.
Additional resources are available to students and instructors on this book’s companion website. For access information, visit www.ache.org/books/IntroHealthcareQuality2. The book companion features test banks, a PowerPoint presentation, and, for instructors, answers to discussion questions.

In keeping with my goal of sticking to the basics, some quality topics are not covered in depth or not covered at all. My decision to omit them should not be taken as a signal that they are unimportant to the study of healthcare quality management. Supplemental learning materials may be needed depending on course prerequisites and program curricula. The websites listed at the end of each chapter can be used to add topics or augment those insufficiently covered in the book. The information I have included on rapidly changing “hot topics,” such as pay for performance and meaningful use of information technology, are purposefully high level; current journal articles are students’ best resource for these subjects. A firm grasp of the basics—measurement, assessment, and improvement—better prepares students to address any quality management topic they encounter.

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