Cost Cutting in Hospitals. Innovative Methods & Techniques

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Abstract
There is emerging need of hospitals to address efficiency issues confronting health care reforms in the present environment. The main objective is to investigate the cost efficiency of hospitals using various methods and variables, and compare the results estimated by the different methods and variables. Reinforcing a common agenda between medical, paramedical and administrative staff, and sharing a common vision among professionals and decision makers in the planning of care, may be the greatest opportunity for any healthcare reform. The future of the health care system cannot be restricted to mere cost reduction, but should aim to deliver better health care in relation to the money spent. Even in this period of austerity, new opportunities can still be found and doctors must lead efforts to meet this challenge. Juran Trilogy Model linking Quality Planning, Quality Control and Quality Improvement if successfully implemented in healthcare or any other industry can cut-down cost and simultaneously enhance quality.

Keywords: Cost efficiency, Quality Planning, Quality Control, Quality Improvement

Introduction
All countries are facing the question of how to maintain quality of care with shrinking health budgets, in the presence of significant growing demand for health care. Current urgency worldwide is largely presented as a cost-cutting policy. The future of the health care system cannot be restricted to mere cost reduction, but should aim to deliver better health care in relation to the money spent. Even in this period of austerity, new opportunities can still be found and clinicians and health-care professionals must lead efforts to meet this challenge.

Cost and quality of healthcare are two critical issues facing the healthcare industry throughout the world. Leaving it to healthcare administrators to worry about costs and the clinical staff to worry about quality is not a recommended approach. The two sides need to collaborate closely to obtain better quality while controlling the spiraling costs of healthcare. The three definitions of quality promoted by quality management pioneer Dr. Joseph M. Juran (Juran, 1989) may help healthcare professionals - clinicians and administrators clarify the relationship between cost and quality and explain the seemingly paradoxical idea that we can indeed enhance quality while reducing cost of healthcare.

The Universal Sequences of Quality Planning, Quality Control, and Quality Improvement
Dr. Juran left us with many important fundamental methods and tools during his years as the leading expert in the field of Quality Management. His writings and teachings were an inspiration to organization leaders, quality professionals, and others in many nations. Included in his many important contributions, were principles like the Pareto Principle and tools like Pareto Analysis.

Dr. Juran emphasized that we must balance the attention we give to the importance of the tools we use, in order to manage for Quality. He wrote about the need to understand and practice the “Managerial Tools,” as well as how to use the graphical and statistical tools in the context of achieving quality leadership. In his early teachings in Japan to executives and managers he emphasized the use of the managerial tools to achieve quality leadership.

The Juran Trilogy is made up of three important managerial tools that work together to help organizations realize the full benefits of Quality Management in the pursuit of Quality Leadership. Dr. Juran’s Trilogy represents the concepts of Quality Planning, Quality Control, and Quality Improvement. In the Six Sigma language, the Quality Planning and Quality Improvement processes are called DMADV and DMAIC. Juran referred to these processes as “universal.” These processes represent the sequences of events to effectively Plan, Control, and Improve Quality. These processes have been used widely in all industries around the world for many years.
The Juran Trilogy®

The use of the Trilogy processes within an organization typically begins with Quality Improvement. This is because the economic costs of poor quality have a significant negative financial impact on an organization when expressed in bottom-line terms. Quality Improvement requires that we identify “projects” for process improvement. We define the process problem, follow the diagnostic journey to discover root causes, complete the remedial journey to apply remedies, and use the Quality Control process to hold the gains. The Quality Control process is the last step and identifies key process control measures that relate to meeting customer and process requirements. The Control Plan defines how these measures are monitored and managed.

In the Trilogy, the journey towards quality leadership is not over until the trilogy of process is completely integrated within the organization. This is where many organizations fail in their pursuit of quality leadership. This requires the organization to learn and use the Quality Planning process. Quality Planning is applied to product and service design and development, as well as process design. The process starts with a design project, to design something new. It then flows from identifying customers and their needs, defining the product/service design features, creating the process designs, and the process control plans. Poor quality planning is the source of costs of poor quality. If the sources of poor planning are not addressed, the organization will continue to produce quality problems in the future and the goal of quality leadership cannot be recognized.

Improving quality in healthcare while reducing costs
The term quality has several interpretations. Confusing them may cause problems, some of which may confuse policy discussions, create conflicts between patients, healthcare professionals and hospital management, and impede progress in solving problems with the healthcare system. If the prevailing paradigm is that reducing cost inevitably will compromise the quality of care, the very mindset becomes an obstacle to dealing with some of the most vexing problems of modern healthcare.

The majority of activities in professional organizations are done as routines, and “routinization” (that is, turning something into a process) of activities constitutes the most important form of storage of an organization’s specific operational knowledge. Process management has an analogy with financial management. The latter is carried out through three managerial processes: financial planning (budgeting), financial control (budget) and financial improvement (cost reduction). It was Juran (1989) who explores this analogy for managing quality. It may seem logical to implement process planning before engaging in process control and process improvement. However, Juran suggested that it is more pragmatic to start with improvement (Bisgaard, 2007).
Perhaps the first association that people make with the topic of healthcare improvement is innovation in medical science, including innovations in treatment protocols, medical equipment, and pharmaceuticals. Healthcare delivery concerns the operating routines in hospitals, including primary patient processes, medical support processes, and nonmedical support processes. Characteristics of these processes, such as their capacity, efficiency, and reliability, determine important performance dimensions of healthcare, such as throughput, patient safety, and waiting times. Ultimately, they have a substantial impact on patient satisfaction, cost, and the quality and timeliness of medical care.

Quality As Fitness For Use
Juran’s primary definition of quality is “fitness for use” (Juran, 1989). This somewhat peculiar definition implies that more is not necessarily better. Instead, the paramount focus should be patient needs and expectations. Quality as “fitness for use” provides a conceptual guide for caregivers to focus attention on what is “fit” for the patient in his or her current circumstances and helps clinicians clarify what is needed to prevent “overuse”, “underuse” or “misuse” (Becher and Chassin, 2001). For example, patients do not want to undergo large or risky surgical procedures or diagnostic tests unless there is a reasonable probability of benefit to their healthcare condition. It is the healthcare workers’ professional responsibility to judiciously apply the fruits of medical science to that end. Most patients are realistic and do not expect miracles. However, it has been observed that healthcare professionals possibly out of fear sometimes prescribe tests, procedures and medications regardless of cost and without sufficient consideration of relevance and effectiveness (Chassin and Galvin, 1998; Schuster, McGlynn and Brook, 1998; Institute of Medicine, 2001). On the other hand, situations also occur where healthcare administrators or funding agencies try to ration tests, procedures and medications. By establishing actual needs, clinicians should stay true to the principle that the only tests and medical procedures that should be administered, are those that contribute to satisfy these needs.

Juran’s definition of quality as “fitness for use” may offer clinicians a conceptual framework for thinking through how to provide better quality while reducing costs. As an example: more costly procedures do not necessarily imply better quality of life; one cancer patient may desire to live as long as possible and endure the hardships of chemotherapy, radiation therapy, and operative procedures; another cancer patient may wish to receive palliative care and spend the available time at home with the family. Obviously, the cost implications differ significantly. Every possible therapy within medical and ethical standards should be made available, but the final choice should be based on the principle of “fitness for use” for the particular patient. Although “fitness for use” is the predominant definition, Juran realized a need for further subsidiary definitions, chiefly for economic reasons, and we will cover these in the next two subsections.

Quality As Features
Juran further quantifies “fitness for use” in two different categories: quality as “features” and quality as “freedom from deficiencies” (Juran, 1989). Both have important implications for conceptualizing the quality of healthcare and helping to clarify the relationship between quality and cost. Quality as “features of a product or service” implies that more features lead to better quality. However, more features typically cost more. There are, or should at least be, two reasons to add features in healthcare. The first is the patients’ justifiable needs, the likelihood of improved health, and ultimately improved quality of life. The second reason is the state of the art of medical knowledge and technology. For example, in the past, coronary artery obstruction was treated with balloon dilatation. Today this procedure usually requires specially coated stents to be implanted as well, which adds significantly to the cost. Better healthcare attracts more patients and produces more revenues, provided that the additional features are paid for, and typically, that margins are higher for more expensive features.

The definition of quality as “features of a product or service” forces us to make tradeoffs between quality and costs. Unfortunately, improved quality as “more features” often is the only definition people implicitly have in mind when they talk about healthcare quality. Such a mindset causes many healthcare professionals, administrators, politicians and the general public to assume that reducing costs inevitably will force us to compromise quality. However, as we will discuss in the next subsection, that is not necessarily so.

Quality As Freedom From Deficiencies
Juran’s second subsidiary definition of quality as “freedom from deficiencies” has the opposite cost implication (Juran, 1989). Fewer deficiencies cost less. Costs are reduced if we succeed in lowering the number of deficiencies: e.g. fewer medication errors, rejected products, lost paperwork, missing X-rays, rework, delays, fewer hospital acquired infections, and lost materials due to failures and mistakes. The focus of this definition is typically not on the “product or service” as in the “features” definition, but is related primarily to processes, either clinical or administrative.

Examples of improving quality while reducing costs
Lean Six Sigma, a data-driven scientific approach to quality improvement has been popular in industry for
some time. Lean Six Sigma’s main focus is on improving quality while reducing cost. Lean Six Sigma has lately also been used with success in healthcare (De Koning et al., 2006). Its main strength is the application of a scientific and data-driven approach to problem solving and its use of a broad spectrum of quality improvement tools and techniques, many of which are statistical. Improvements are achieved by a team-based, project-by-project approach involving hospital employees trained in the Lean Six Sigma methodology. These projects focused on improving processes, clinical as well as administrative, either by reducing the number of deficiencies or by reducing non-value adding activities.

References


