The pursuit of efficiency through operational improvement has been a goal of managers in all organizational sectors dating back to the beginning of the 20th century and the writings of Frederick Winslow Taylor, a mechanical engineer who sought to improve industrial efficiency. His development of the theory of “scientific management” and the quest for the “one best way” to perform a task based upon observational studies are the stuff of introductory courses in management. One might argue that our current pursuit of evidence-based management finds its roots in this venerable inquiry.

Healthcare organizations should promote a nonpunitive environment that values feedback on diagnostic performance.

The ACHE Code of Ethics states in its preamble that a fundamental objective of the healthcare management profession is to create an “effective and efficient healthcare system.” This premise appears so self-evident that it is hard to imagine any objections to a continual striving for greater efficiency as the basis for a managerial philosophy.

The National Academies of Science, Engineering and Medicine in its 2012 report Best Care at Lower Cost: The Path to Continuously Learning Health Care in America identified at least 30 percent of medical interventions as being wasteful in nature. More recent surveys of physicians have reached a similar conclusion.

The ethical problem created here features two alternative approaches to efficiency. One is identified as technical efficiency, while the other is allocative efficiency. United Kingdom economists Stephen Palmer and David J. Torgerson define technical efficiency as occurring when the maximum possible improvement is obtained from a set of resources. Most operating decisions made within the sphere of organizational management fall within this definition.

Allocative efficiency takes a broader view of the concept of efficiency, looking at societal effects of resource investment. The National Library of Medicine defines this as assessing competing programs and judging the extent to which they meet objectives. This definition is in keeping with recent emphasis on population health and the impact of a decision on the distribution of health benefits across the community.

Ethical Foundations of Efficiency

Technical efficiency is grounded in the ethical principles of beneficence and utility. The simplest application is beneficence, the obligation of the executive to work to the benefit or enhanced well-being of persons served. Utility introduces more explicitly the broader community and evaluates an action in terms of its effects on health rather than intrinsic attributes. It is commonly summarized as the greatest good for the greatest number.

Allocative efficiency derives its ethical basis from the principle of justice. Justice is cited by Kurt Darr, JD, ScD, professor emeritus, hospital administration, Department of Health Services Management and Leadership, Milken Institute School of Public Health, The George Washington University, Washington D.C., as the obligation to act in a fair and impartial manner in making administrative decisions that affect one’s institution or any party it serves, such as allocating limited resources and/or services, benefits or burdens, risks and costs.

The task of balancing competing priorities is certainly familiar to
practicing executives. The problem comes in electing to concentrate on the simpler question of technical efficiency to the detriment of the broader questions allocative efficiency poses.

A Case in Point: Diagnostic Accuracy
Ethical concerns are often illuminated by the use of case examples, which test general principles. A significant problem The National Academies of Science, Engineering and Medicine identifies is that of diagnostic error and its detrimental effects. Danielle Ofri, MD, PhD, an author and physician at Bellevue Hospital, N.Y., notes in her review of the National Academies 2015 report Improving Diagnosis in Healthcare that it contains the “chilling observation that nearly everyone will experience at least one diagnostic error in their lifetimes.” They account for an estimated 10 percent of patient deaths, hundreds of thousands of adverse events in hospitals and are a leading cause of paid medical malpractice claims. A diagnostic error might include acid reflux being mistaken for a heart attack, or a pathology report showing cancer that is not communicated to the patient.

Diagnostic error is defined from the perspective of the patient as “the failure to (a) establish an accurate and timely explanation of the patient’s health problem(s) or (b) communicate that explanation to the patient.” The patient bears the ultimate risk for such errors, as they may lead to improper treatment or to unnecessary interventions. The report goes on to state that “Diagnostic errors may cause harm to patients by preventing or delaying appropriate treatment, providing unnecessary or harmful treatment, or resulting in psychological or financial repercussions.” Such errors clearly contradict the beneficence principle of duty to care for the patient above all.

The expert panel that developed the report calls for greater teamwork in the diagnostic process among a range of health professionals, patients and their families. A template for this approach has existed for decades in the rehabilitation sector, but is relatively recent in its application to the acute care setting. Aspiring health professionals are increasingly being educated in team processes and communicating through interprofessional education classwork across disciplinary boundaries.

From the perspective of the executive, the report encourages a work system and culture that support the diagnostic process and improvements in diagnostic performance. Healthcare organizations should promote a non-punitive environment that values feedback on diagnostic performance.

A controversial issue is the role of information technology in diagnosis. Advocates of the expanded use of IT argue that a major justification for investment in IT is the potential to improve diagnosis and reduce errors. Its critics are concerned that IT does not facilitate the diagnostic process and may even contribute to errors.

Barriers to Diagnostic Improvement
From an ethical perspective, the duty of care for correct diagnosis seems quite clear. Why, then, does this persist as an issue? Perhaps the answer lies in misdirected pursuit of efficiency through limited range of measurement. This is a fundamental problem, for as Clark C. Havighurst, the William Neal Reynolds Professor Emeritus of Law, Duke University, Durham, N.C., has stated, “In management, what one measures, one gets.”

Efficiency is fundamentally grounded in the ability to measure and then assess improvement. Quality metrics reflect this principle and attempt to construct meaningful measurements that are deemed beneficial to the health of the patient. A prime example is the administration of aspirin to a patient upon arrival in the ED with symptoms of acute myocardial infarction.

Technical efficiency is grounded in the ethical principles of beneficence and utility.

Standard quality reporting measures reflect important care processes, but they are proxies for the overall contribution to the health of the patient. They may be selected simply because they are easy to measure. While these are important contributors to a successful outcome, they do not tell the full story.

Another unrelated but compelling concern is that payment systems for hospitals and physicians key off diagnoses, and speed in reaching a diagnosis may facilitate payment. In the effort to achieve a quick diagnosis, accuracy may be sacrificed. This is unfortunate, as the safety expert Pat Croskerry, MD, has observed that...
"When the diagnosis is made, the thinking stops."

Metrics fail us in the case of diagnostic errors because there is no standard or required way to track them. Robert Berenson, institute fellow at the Urban Institute, Washington, D.C., suggests that this is a result of diagnostic errors being much more difficult to measure than a medication error. The complexity of diagnosis does lend itself to simple measurements.

**Efficiency a Means to an End**

Efficiency is a means to an end, in this case the health of the patient, rather than an end in itself. While secondary measures are important, they should not be mistaken for the ultimate goal of enhanced health. Diagnosis is a messy process in many instances rather than an efficient and straightforward one, and it presents an allocative problem for the executive in investing in the problem-solving skills of diagnosis versus investment in new technology.

The ultimate objective, then, is effectiveness in care for which efficiency is a contributor. In the words of legendary University of Minnesota Director/Professor Vernon Weckwerth, PhD, “Efficiency is the number of times the bird flapped its wings, while effectiveness is whether the bird flew.”

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