Cost control, a myth or reality: do hospital costs really go down when quality goes up?

Abstract

Quality improvement is needed to meet the demands for quality while simultaneously reducing the cost of delivered health care. In a competitive market of corporate hospitals, quality improvement would lower the proportion of unit cost relative to potential revenue thereby increasing profit. For public hospitals, the mandate for ‘minimum quality’, which is the basis for accreditation, could also be attained by efficient use of hospital resources.

Nature of competition

Producers including hospitals, have a number of strategies at their disposal:
(1) increase the quality of the product and increase the sales price;
(2) flood the market with lower quality product at a lower price; and
(3) increase the quality and at the same time reduce the price of the product.

The first strategy is appealing to corporate hospitals that compete in a higher-end market of the health care industry because it promises higher returns on their investments. The customers of these hospitals belong to the higher income group of the population who are able to pay higher prices for improved medical service.

In the second strategy, the competition consists of offering a ‘minimum quality’ product at a lower price. This strategy emphasizes the importance of utility as compared to quality, and is forced upon public hospitals that have limited resources and are being ‘flooded’ with excess demand compared to what they can supply. The purpose is to produce a product just adequate to serve its utility but quality is maintained at a ‘minimum level’. Hospitals that do not meet the minimum requirement of quality will not get accreditation.

The third strategy of increasing quality and at the same time reducing unit cost is possible but requires two important conditions: increase in quantity to attain an economic-size production and adequate market share. If the required production exceeds the perceived market share, the inventory will not be cleared, thereby resulting in a loss. The health care industry, with all its unique features, is not entirely exempt from these economic rules.

In all three strategies, cost containment is critical. The
paradigm of ‘efficient quality improvement’ is not a myth but a reality in any economic production.

**Absence of competition**

Even in countries that embrace a free market system, there are producers that do not compete. They belong to either a regulated industry or to a segment of an industry that cannot even meet the demands of their consumers. A case in point is the health industry, especially in developing countries. Generally in developing countries, the private-for-profit hospitals compete in the higher-end market, while public hospitals do not compete because they serve very large number of consumers. These hospitals are in a regime of price control if not under a mandate of free service.

The fact remains, however, that many public hospitals in these countries are struggling to attain the required minimum level of quality. It is no longer a question of whether costs go down as quality goes up but it is now a mandate that cost should go down and quality should go up. Public hospitals should therefore pay serious attention to cost containment if they have to meet the minimum quality requirement with their very limited budget.

**Regulation**

In the health industry, regulations are manifested in different mandates, licensing, and accreditations. These regulations are responses to political and economic pressures by consumers because health care is one of the most expensive and politically sensitive social services. The political rhetoric is always to reduce cost and improve quality.

Some of the most common regulations pertain to the licensing of hospitals, individual health care professionals, and health care products. Common to these regulations is the requirement for quality or quality assurance. Quality assurance requires a ‘minimum level’ of service effectiveness and to ensure the safety of consumers. Of the two requirements, safety is dominant and should not be compromised. Public safety is an inherent responsibility of the state and should be subject to regulation.

Accreditation is a process of reviewing or auditing the operation of hospitals and other health care providers to check if they abide by the requirements of an accrediting agency. Accrediting agencies include government regulatory agencies and professional associations. Examples of accrediting agencies include the Joint Commission for the Accreditation of Hospitals (JCAH) in the United States, ministries of health, and hospital associations in different countries.

The International Organization for Standardization (ISO) has quality assurance accreditation requirements for hospitals. In addition to other requirements, all forms of accreditation pertain to quality assurance. The first form of accreditation is to ensure that hospitals maintain a ‘minimum level’ of quality as defined by a regulatory agency, and the other form is to encourage ‘increased level’ of quality (above the minimum). Increasing quality above the required minimum is what is known as ‘quality improvement’.

### The third party payer system

Third party health providers refer to organisations that provide health services to their constituents and employees, normally through insurance, tax collection, and subsidized social programs. Business corporations and government agencies, especially in more developed countries, provide health services to their employees through medical and dental insurance. Health Management Organizations (HMO) provide health services to their members. Large HMOs serve as conduits for business corporations and governments in providing health services to their constituents or employees.

In addition to quality assurance, third party providers also want to reduce their cost in providing these services. The insurance companies and HMOs serve as the percolators for these two seemingly competing objectives. This is where quality and costs are reconciled.

Insurance companies and HMOs operate under simple business principles: the more quality health care, the more insurance premium per member; the less quality health services, less premium per member. The insurance programmes are offered in a cafeteria style where consumers can select the level of health care in relation to the cost. The organizations that pay the insurance premiums for their constituencies and employees also abide by a simple rule: more quality health care, more co-pay for employees; less quality health care, less or no co-pay. This system of ‘privatising’ the health care industry through private insurance companies and HMOs serve as a cost containment filter. As mentioned previously, these organisations will try to maximize returns from a flow of fixed income (premiums) and will control cost as much as possible. The quality improvement and cost control debate is causing friction between medical professionals (from hospitals) and ‘health managers’ (from insurance companies). While the former is responsible for the medical welfare of their clients, the later appears to emphasize the economic welfare of the consumers. Somehow, the equation of cost and quality becomes blurry in these arguments.

The power struggle between the first party health providers and third party health providers tends to percolate towards this argument: That the provision of more quality should be affordable and quality improvement should always be equated with efficiency. Quality improvement at any cost is no longer acceptable.
A concept of efficient quality improvement

In its narrowest sense, efficiency refers to a process of reducing cost by minimizing waste, errors, and redundancy. Improving or re-engineering the production process and administrative procedures could achieve efficiency. In 2001, the Institute of Medicine, identified ‘six key elements that would be fundamental in successful re-engineering of existing health care system. In short, the new system needed to be Safe, Timely, Effective, Efficient, Equitable, and Patient-Centered (STEEP)’ (Lamp, 2003, p. 21). Consider the following examples:

1) a production process with 10 steps is streamlined to 8 steps;
2) a form (medical form or administrative form) is revised to reduce the pages and the time for completing it;
3) a job is re-engineered to reduce the number of assigned personnel.

These examples point to an efficient operation by avoiding or reducing waste and redundancy.

In a production process, errors in one step will affect the other steps. It could even cause the whole production process to stop. If not corrected, errors can result in inferior products. Correcting errors and repeating the process add more cost. Errors can be minimized through proper matching of people’s skills and technology.

Quality improvement refers to additional desirable product attributes beyond the minimum level of quality requirement. In terms of hospital operation, it is the level of quality beyond the requirement of its licence. Recalling the previous discussion, the minimum level of quality refers mostly to public safety. Public safety refers to the safety of hospital clients and its employees.

After satisfying the requirements for public safety, quality could be ‘improved’ by making hospitals more effective in providing health care and by adding extra layers of safety nets. The minimum quality requirement for hospitals in more developed countries is expected to be higher than the requirement in less developed countries due to significant differences in resources. In developing countries, private for profit hospitals are expected to be cleaner and less prone to infection compared to a crowded public hospitals, creating a sense of higher quality.

The concept of efficient quality improvement (EQI) refers to the process of adding desirable attributes to a product through the optimum use of production resources. The notion of optimum use pertains to the proper matching of human and material resources available to a hospital. In other words, efficient quality improvement demands provision of quality services within the limits of available resources. This concept implies that hospitals with more resources are expected to offer a higher quality service compared to hospitals with very limited resources. This notion of proportionate quality improvement in relation to available resources puts rich and poor hospitals on a level playing field.

A commitment to quality improvement reduces expenditures. About 20%-30% of organisational expenses are the results of redundancy of effort, error, rework, recurrent problems, untrained personnel, and cumbersome system (Dever, 1997). In other words, quality improvement calls for the use of fewer resources more effectively.

The concept of cost effectiveness is the financial derivative of efficient quality improvement. It is the process of determining the most efficient and effective allocation of resources, in financial terms. A lousy job done at low cost is not cost effective.

Hospitals that are not able to maintain the most basic quality requirement of their accreditation because they are not able to utilise their resources to the optimum are not cost effective. Hospitals that embark on quality improvement by squandering their resources are also not cost effective.

Playing the game of quality improvement

Dever (1997) suggests four scenarios of quality improvement.

➡ Scenario 1: Doing the right thing wrong;
➡ Scenario 2: Doing the wrong things wrong;
➡ Scenario 3: Doing the wrong things right; and
➡ Scenario 4: Doing the right things right.

Dever scenarios describe how resources (human, materials, equipment, systems) are utilised and matched with each other in a production process. The proper matching of these resources measures the level of efficiency and effectiveness of resource utilisation.

Examples of Scenario 1 include a situation where the right procedure is developed and the right equipment is purchased but for some reasons is assigned to wrong people. There are three elements in this scenario: the system or procedure, the equipment needed in the system, and the human resource that will use the system. It is conceivable that the process started in re-engineering an established procedure because it was observed to be cumbersome and wasteful. The decision to improve the system procedure can be a result of audit, consultant recommendation, analysis of reports from users, comparison with other hospitals procedures, or additional requirement for accreditation. Examples of hospital systems or procedures include diagnostic procedures, billing procedures, patient admission procedures, in-house infection control procedures, etc.

The right thing to do is to improve the procedure by re-engineering the process; develop new and improved forms1; and purchase the necessary equipment. However, a wrong decision is made by not improving the skills of people who will use the new procedure and operate the new machine. This scenario tells us that significant investments in quality improvement will be wasted if other critical things are not done right. This unfortunate scenario can be avoided by

1 Forms could be cumbersome. Some forms are too long, some requires redundant information, and some do not serve any important purpose at all. If the number of forms can be reduced, and the remaining required forms can be re-engineered to reduce the number of pages and improved the quality and usefulness of entries, tremendous savings can be attained. Forms could require very significant amount of human resource and significant storage space for processing.
adopting a holistic approach to quality improvement.

An example of Scenario 2: Doing the wrong things wrong include a situation where mistakes and errors are made by personnel because the process is cumbersome and confusing, the equipment is not the right one, and the users lack the will and skills to improve the situation. It is a case of terrible incompatibilities and gross mismatch. It rarely happens but it may happen. It involves significant cost and indignation when it does.

An example of Scenario 3: Doing the wrong things right include a situation where the human resource is exactly following the instructions of a faulty procedure. Obviously such faulty procedure would result in inefficient utilisation of equipment and staff time, not even mentioning the danger it poses to patients in case of medical procedures. This could be a result of non-involvement of the concerned people in the development of a system or procedure.

Scenario 4: Doing the right things right is the ultimate objective of all organizations. It is the ideal world. It is a case of matching the right procedure with the right equipment and the right people. This scenario forges into one the concepts of efficiency, quality improvement, and cost effectiveness. Is it Utopia? The answer is yes and no. Yes, because it should happen in real life. No, because it does not happen all the time. The fact remains however that it should be pursued vigorously if only to reconcile the twin objectives of improving quality and at the same time reducing cost.

According to Dever (1997), the four scenarios can be summarized into one fundamental question: Is the action or intervention relevant and necessary (appropriate)? And if so how can we make sure it will be done right (effectively). In other words, how can we make sure that the combination of procedure, equipment, and human resource is cost effective and would result in efficient quality improvement (Pena, 1991).

The impact of quality improvement on cost reduction

Quality improvement is needed to meet the demands for quality while simultaneously reducing the cost of delivered health care (Lighter and Fair, 2000). If hospitals and physicians try to lower cost by reducing care (instead of improving quality), they will be vulnerable to lawsuits. Cost containment in many economic systems has led to deterioration of quality, but health consumers insist, through political pressures and economic incentives, that health providers increase quality while reducing cost (Lighter and Fair, 2000). It is an unequivocal commitment to quality improvement and a commitment to reducing cost of health care. This is the very essence of arguments that were presented from the beginning of this article. If the previous illustrations and discussions are still considered ‘concepts’, there are concrete examples of how quality improvement can reduce cost. Let us start with the most glaring examples of why quality improvement is vital to reducing costs.

The first example mentioned above is malpractice lawsuits. Health care consumers are no longer a passive group of patients who believe in everything that health providers tell them. They are now active participants in important decisions in medical intervention. This phenomenon is partly caused by strong political and economic power being exercised by third-party payers of health care. Third party payers include the Federal and State governments in the US in case of Medicare and Medicaid, corporations and non-profit non-governmental organisations who provide health care benefits for their employees, insurance companies and HMOs.

Mistakes and errors that were normally considered a part of a delicate and naturally dangerous medical intervention end up in courts. Legal costs are increasing, punitive claims are damaging, and malpractice insurance is becoming more and more costly.

A systematic and continuous quality improvement can prevent these mistakes and errors to occur, thereby avoiding costly litigation. Hospitals and physicians with clean records could also avail of lower insurance cost. This is an example of how quality improvement can subsequently reduce cost.

Another example is enhancing public perception. The quality of hospital services is mainly based on the perception of its clients. Corporate hospitals spend significant amounts of money on advertising and branding just to enhance their reputation. Investments in quality improvement promise good returns if the right things are done right. Once the hospital reputation is enhanced, clients would be willing to pay extra for their perception of additional quality. In this example, the unit cost of health care production may increase but the percentage of that unit cost in relation the increased unit price has been reduced.

Another direct impact of quality improvement is reducing operational cost. Among the most significant costs in hospital operation are staff salaries and fringe benefits, medical supplies, administrative and general supplies, energy and utilities, and physical plant costs (building and equipment maintenance). There are other expense accounts in a typical income statement of a hospital but the above-mentioned accounts are the most dominant.

Continuous quality improvement will have a favourable impact on specific operational cost account (as mentioned above) and the totality of these changes would bring a general perception of quality improvement.

Cost, quality, and social responsibility

By tradition, the provision of health care is a social responsibility. It connotes that the collective membership of a
society should provide health care to its individual members, especially the poor. At least in theory, health care is a public good that should be produced and consumed collectively. In purely academic thesis, any product that is vital to the existence of a society is a public good. In practice however, that is not the case. Some products and services that are considered ‘social responsibilities’, have been privatised simply because its user fee can be determined.

What are the alternatives open to persons who cannot afford basic health services for themselves and their families? Societies try to fulfill their social responsibility to the needy segment of population through the provision of public services and subsidies. Examples include the operation of public hospitals by governments that cater to the needs of the poor segment of society.

It has been argued that even when social products are privatised, society still fulfills its social responsibility, somehow. But, what about the cost and level of quality of services that are provided to those who, because of their lower income, found themselves out of the market? Is it still the responsibility of society to provide the same quality of service to all people regardless of whether they are paying for the service themselves or being subsidised?

Are hospitals bound to admit all patients regardless of whether they will be able to pay the cost of service or not? Is it unethical for a hospital to ask if the patient has a medical insurance before finally admitting the patient? Is it unethical for private hospitals to reject or refer back the poor patients to a public hospital? Is it acceptable for a hospital to render a lower quality service to poor people?

The most common display of social responsibility by hospital is during emergencies. After the emergency situation is over, the hospital would be haggled with the question of what to do with the patient who is able to foot the bill. Is it acceptable for hospital to render just the ‘minimum’ service to the patient knowing that the patient would not be able to pay? Or refer back the poor patient to public facilities? Admittedly, those public places would be rendering low quality services proportionate to their available resources. In the United States, the issue of providing health care as a social responsibility is being used as a political platform for providing medical insurance to a large portion of lower-income Americans.

A brew of cost, quality, and social responsibility is enough to intoxicate any medical professional and managers of hospitals. Reconciling the Hippocratic Oath and the economics of health care is confusing and problematic. The only way out is to re-invent a potion that would mix the cost and quality ingredients into a stable compound that would not be susceptible to explode at anytime. That compound is efficient quality improvement.

References

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