

## PERFORMANCE INDICATORS FOR HOSPITALS: FROM MEASUREMENT TO IMPROVEMENT



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In the first issue of Human & Health Journal (October 2007), we published an article entitled The Impact of Accreditation on Quality of Care in Lebanese Hospitals (El-Jardali, 2007). This article documented results from a national study which revealed that health professionals perceived improvement in quality as a result of accreditation. The study showed that the hospital accreditation program is a good tool to improve quality of care. In reference to specific results, one finding showed that accreditation enabled hospitals to use indicators and data to improve quality and care services. In fact, hospitals' Use of Data was significantly associated with enhanced quality at accredited hospitals. This reveals the importance of key performance indicators in driving quality improvement activities. It is well documented in recent literature that performance indicators can help hospitals to track improvement, measure performance, and provide evidence for compliance with accreditation standards. That being said, what kind of performance indicators should be developed for hospitals in Lebanon? How will they be measured? What are the potential benefits of such indicators? And what can we learn from the experiences of other countries in terms of performance measurement and reporting? These are legitimate questions that need to be discussed and contextualized.

In this article, we examine the importance of performance indicators and measurement by discussing the key role they play in improving health systems in general and hospital performance in particular. To do so, we examine some of the recent worldwide experiences in performance measurement and reporting including the use of report

cards. The paper concludes by referring to a relevant project that is currently underway in Lebanese hospitals which includes indicator development, standardized measurement tools and capacity building and training.

### Introduction

Health systems today are expected to achieve and manage results in line with established objectives and quality standards. This necessitates the use of performance indicators and measurement since they are critical to effective management and performance improvement. Organizations should evaluate their performance by using key performance indicators which are considered as means or tools to improve performance. But to do so, what kind of performance indicators should be developed for hospitals in Lebanon? Before discussing this question, let us clarify the concept of key performance indicators.

A key performance indicator is a measurement tool, which is rate-based (e.g. complication rates) or event-based (e.g. number of hospital admissions). It is a guide to monitor and evaluate the quality of client care and service, clinical support services, and organizational functions. It is considered an aid which helps organizations understand a system, compare (or benchmark) it and continuously improve it. So, what differentiates indicators from measures? Measures are the "What" of something (e.g. patient satisfaction). On the other hand, indicators are the "How" of something (e.g. percentage of patients that are satisfied for a specific time-period). Therefore, performance indicators are the quantification or qualification of a performance measure.

What are key performance indicators used for? They can be used for several purposes in hospitals. Their applications start with understanding how a system works by pinpointing areas for improvement and accordingly tracking improvement activities. Let's consider this scenario: a hospital is concerned with the burden of disease which seems to be taking a huge toll on its performance. What can be done? Disease-specific performance indicators can be established to focus on diagnoses associated with highest spending and their related treatments. As such, indicators would help the hospital identify current gaps in performance and consequently focus its efforts to bridge these gaps and improve.

Key performance indicators (both administrative and clinical) can provide hospital managers with strategic directions and help hospital

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staff measure day-to-day operations. They also aid the hospital in comparing its performance to an established norm (e.g. benchmarking). Moreover, performance indicators provide evidence for compliance with Accreditation standards. Finally, indicators reflect the achievement of positive outcomes providing the grounds for organizational effectiveness. This serves for accountability purposes, allowing hospitals to provide evidence to patients, users and third party payers that they are providing good patient care. In fact, and according to experiences from different countries, many third party payers are now using key performance indicators for contracting purposes including reimbursement. Performance contracting is when the healthcare payer uses information about a provider's performance in developing its contract to buy services from that provider. To illustrate, key performance indicators can aid hospitals to know how they are performing relative to nationally established common standards in order to be contracted by payers, such as the Ministry of Health, insurance companies, etc.

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### **Who Benefits from Performance Measurement and Reporting?**

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Three main stakeholders in healthcare usually benefit from performance measurement and reporting, these are: consumers, providers and purchasers (i.e. third party payers). From the consumer's perspective, literature argues that performance measurement and reporting aims to inform them in order to help them make wiser judgments about their choice of hospital, based on both quality and cost, rather than cost alone (Powell, 2006). From the provider's perspective, performance measurement and reporting offers an opportunity to assess performance, comply with accreditation standards, improve quality, and promote accountability (Hader, 2006). In fact, several studies showed that healthcare organizations that fear performance measurement and reporting information about quality of care had poorer performance than those that did not (Marshall et al., 2003); while on the other hand, measurement and reporting enhanced and reinforced quality improvement efforts (Barr et al., 2006).

In terms of purchasers (third party payers), it is worth noting that the global healthcare system is witnessing a shift towards performance-based payment incentives, sometimes referred to as pay-for-performance. Leading-edge sponsors of pay-for-performance are increasingly focused on outcomes and cost-efficiency measures, rather than clinical process measures alone (Rosenthal et al., 2007). For example, as a payer, the government's interest in performance focuses mainly on outcomes. By focusing on results, the payer creates incentives for hospital administrators to achieve them. In many countries, payers are regularly collecting data about the performance of all providers that they usually reimburse.

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### **Worldwide Interest**

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The reasons for the escalating worldwide interest in performance measurement include rising healthcare costs, aging populations, market failures, poor quality, medical errors, lack of accountability, and inequalities (OECD, 2004). In all these, there are widespread perceptions of poor value for the money and effort spent on healthcare (Johnston, 2004). To address this, many industrialized countries are focusing on performance measurement and reporting as a key tool to help achieve their health goals (Arah et al., 2006).

To ensure effectiveness, equity, efficiency, and quality, many countries have been developing conceptual frameworks for monitoring, measuring, and managing the performance of their health systems (Arah et al., 2003). For instance, the World Health Organization (WHO) and the Organization for Economic Cooperation and Development (OECD) have taken an international lead in encouraging health system performance measurement (Arah et al., 2006). Furthermore, there is growing recognition that the capacity to evaluate and report on quality is a critical building block for system-wide improvement of healthcare delivery and patient outcomes (McLoughlin et al., 2001).

The WHO European Office for Integrated Health Care Services, in collaboration with WHO Headquarters and other major players in the field of hospital quality improvement and performance assessment (JCAHO, IQIP, CEP, Universities of Toronto, Montreal, Amsterdam etc.) set up an international group of experts in January 2003. Consequently, Performance Assessment Tool for quality improvement in Hospitals (PATH) was developed through a series of workshops. The conceptual model, indicator selection, and operational model, were built on strong theoretical background and empirical material. More than 300 indicators were screened, and a survey was led in 11 European countries to assess data availability and the burden of data collection, the potential impact on quality and the perceived importance of pre-selected indicators (Veillard et al., 2004). Six dimensions were identified for assessing hospital performance and these are: clinical effectiveness (e.g. Caesarean section delivery); safety (e.g. Mortality for selected tracer conditions and procedures); patient centeredness (e.g. Last minute cancelled surgery); efficiency (e.g. Length of stay for selected tracer conditions or procedures); staff orientation (e.g. Absenteeism); and responsive governance (e.g. Breastfeeding at discharge) (Champagne et al., 2005). PATH is both a flexible and comprehensive framework and thus can be applied to different national contexts and is of particular use in countries where no indicator projects exist (Groene et al., 2008).

Another framework that has been devised for healthcare system performance is the Organization for Economic Cooperation and Development Health Care Quality Indicator (HCQI) Project. It takes into consideration

five dimensions: effectiveness, safety, responsiveness/patient centeredness, accessibility and cost/expenditure. The project aims to develop a set of indicators that reflect a robust picture of healthcare quality that can be reliably reported across countries using comparable data. It now comprises of 86 indicators: nine for diabetes, 12 for mental health, 17 for cardiac care, 21 for patient safety, and 27 for primary care and prevention. The success of the HCQI indicator development work is apparent given the increasing number of countries that are voluntarily choosing to participate in it, drawing in almost all OECD countries (Mattke et al., 2006).

An increasingly popular method of measuring and reporting health system performance is the balanced scorecard. The balanced scorecard represents a technique used in strategic management to translate an organization's mission and strategy into a comprehensive set of performance measures that provide the framework for implementation of strategic management (Pineno, 2002). This tool provides an organization's management with an overarching view of risks and benefits of strategic and operational decisions. The scorecard would measure performance in four quadrants: health determinants and status; community engagement; resources and services; and, integration and responsiveness (Kaplan and Norton, 1996). In short, international experiences show that performance measurement and reporting is a key component of health policy. Healthcare systems should be regularly assessed if they are to be monitored and controlled effectively. For instance, one can not attend to and comprehend the variations in practice and performance among different hospitals without having the accessibility to proper assessment tools and essential information. Measuring performance and reporting of results is the only way by which one can assess current practices, discover pitfalls and devise solutions to enhance practices (OECD, 2004). Also international experience shows that identifying common performance measures for hospitals can create a culture of transparency in a healthcare system, both at the organizational and the external levels (Barr et al., 2006).

### **The Case of Lebanon**

The current accreditation program in Lebanon has promoted the use of indicators

by requiring that each hospital should have a quality improvement plan (QIP) which includes:

- 1- Very clear, precise objectives using key performance indicators as the measurement tools.
- 2- Indicators that use the S.M.A.R.T principles, that is, Specific, Measurable, Achievable, Realistic, and Time-bound.

The accreditation standards also include several examples of Key Performance Indicators such as: unplanned re-admissions to the unit; return to operating room within 24 hours; infection rates for nosocomial infections; work related injuries, turnover rates, etc.

While many hospitals in Lebanon are investing in quality and performance improvements, they still lack the means, capacity and tools to implement long lasting quality improvement strategies. In fact, some hospitals utilize several indicators for internal use, yet they lack a standardized list of key performance indicators which all hospitals agree to measure on in a unified way. Moreover, there is a lack of standardized tools to assist hospitals in gathering and analyzing data on quality and safety. This impacts the quality of healthcare systems in Lebanon. That is why there is a need to work with both public and private hospitals in terms of identifying key performance indicators and developing standardized measurement tools in addition to capacity building and training. In Lebanon, several hospitals usually address the following questions:

- 1- What are the right indicators to judge hospital performance?
- 2- How can they be measured in a consistent way?
- 3- Where will we find the data to report on performance?
- 4- Who will be responsible for gathering, analyzing and reporting on this data in an informative way?
- 5- How can the results from the performance indicators be analyzed in an objective way?
- 6- How can the results be presented and commented on?

Of course, when measuring performance, it is important to examine a comprehensive and balanced set of indicators reflecting multiple performance domains. To put this differently, this set should include both administrative and clinical indicators and should address structure, process and outcomes. Evidence shows that it is better to start with a small number of relatively simple performance indicators and expand the list over time. By this, hospitals will develop measurement capacities as well as a culture of measurement and reporting. But how do we go about developing a standardized list of key performance indicators which all hospitals agree to measure on in a unified way?

In Lebanon, a project was recently conducted to promote measurement and reporting of performance indicators in public hospitals. It was funded by World Health Organization (WHO), Lebanon country office, and supported by Ministry of Public Health (MOPH) in Lebanon. The project has been conducted in three phases: Phase One, and in partnership with the Ministry of Health, all public hospitals in Lebanon were contacted, to introduce the objectives and benefits of the project. A consensus meeting was organized to acquire agreement on common indicators. Twenty public hospitals participated in this consensus meeting. The main outcome of this project was a consensus agreement of participating public hospitals on 25 core and 12 tailored common key performance indicators (El-Jardali & Kronfol, 2007). Phase Two consisted of research work to develop standardized tools to measure the key performance indicators that were selected by the group. The Third Phase comprised of a report that documented key

performance indicators along with the rationale, formula and data sources for each indicator.

Building on the accomplishments of this project, it has been expanded to include private hospitals in Lebanon. We aim to replicate our approach in private hospitals. The proposed project will be conducted in eight phases which include: assessing readiness of private hospitals; conducting a consensus meeting; developing Key Performance Indicators; developing Standardized tools; pilot testing; indicator revision; capacity building and training; and dissemination. The expected outcome of this work is a list of key performance indicators for both public and private hospitals in Lebanon. Those indicators will be measured by hospitals using standardized measurement tools. As a result, hospitals will be able to benchmark their performance against that of their peers and eventually, this system will create an incentive for organizations to improve quality and patient outcomes.

Work and coordination with the Syndicate of Private Hospitals is currently underway to gain support and to facilitate this project. To our knowledge, this is the first project in Lebanon and the region that attempts to engage public and private hospitals in developing performance indicators that they can all agree to measure and report on.

## Concluding Remarks

According to the experiences of different countries, measuring and reporting of hospital performance has enhanced public accountability and trust in their health systems. Providers and users in such systems are making more informed choices and now choose hospitals based on their quality of care. In addition, performance measurement and reporting has created incentives for hospitals to improve quality and shifted their focus from price competition to quality competition. In many countries, third party payers are now paying providers based on performance (the pay-for-performance concept).

While one can argue that hospitals in Lebanon and the whole healthcare system for that matter, still lag behind the advancements that are taking place elsewhere, we believe that this is not a reason for inaction. To be strategic and proactive, the healthcare system in Lebanon should start to promote the use and reporting of performance indicators; and the project that is currently underway is only a first step in that direction.

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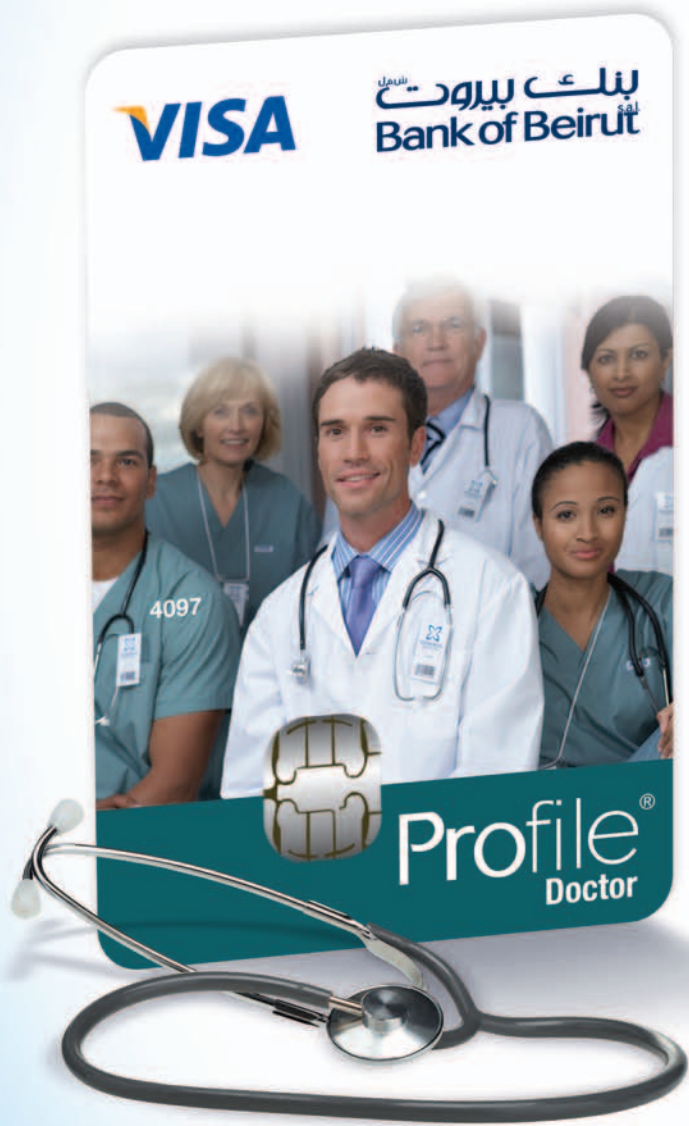
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