

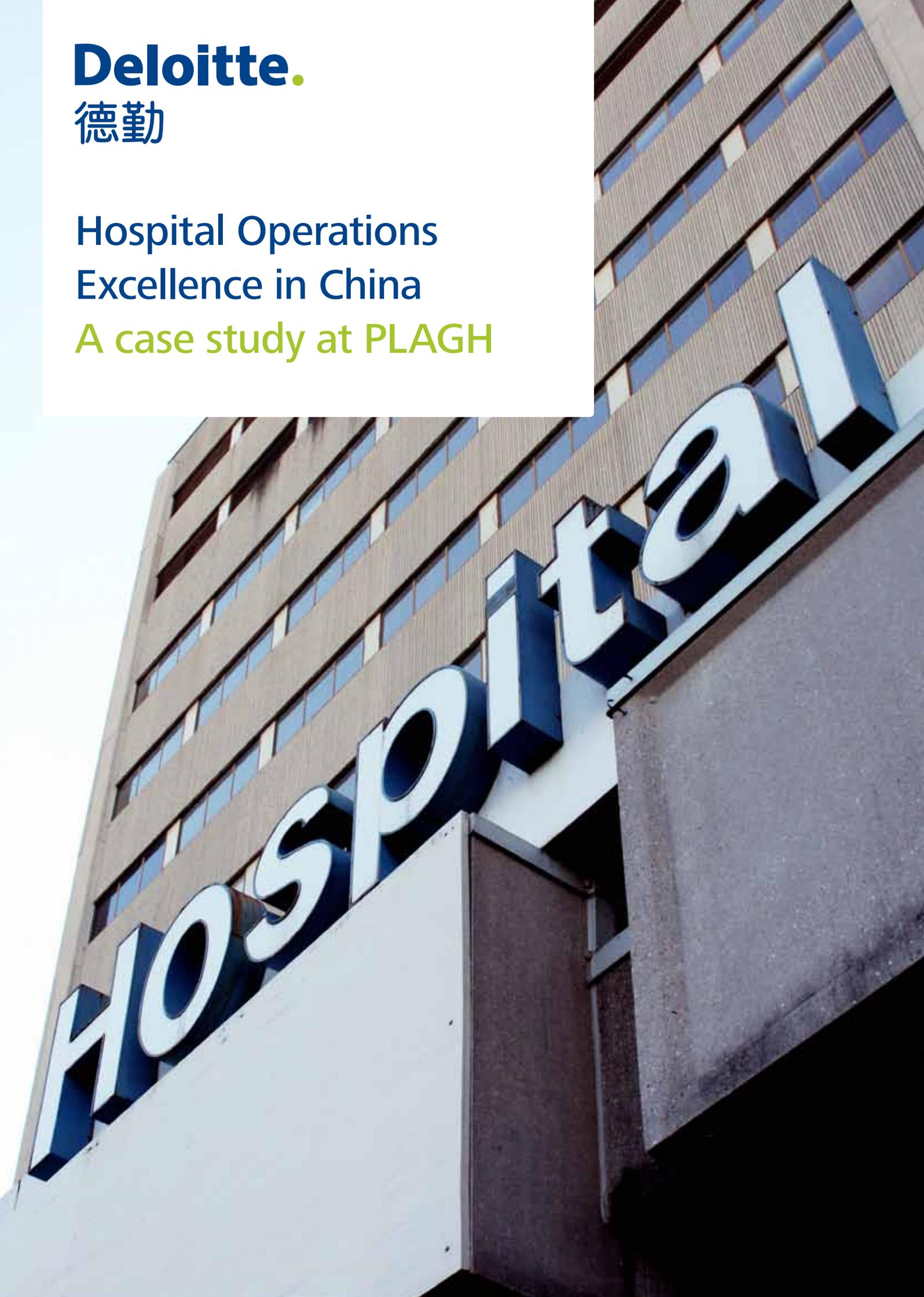
**Deloitte.**

德勤

Hospital Operations

Excellence in China

A case study at PLAGH



# 1. Introduction



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Deloitte's healthcare consulting team helped us to have a holistic view of the operations and sort out the right focus area for improvement by applying a clinical operations maturity model. This will allow us to be more competitive in clinical operations and serving patients.

Dr. Chen, Yundai, Head of Cardiology at PLAGH

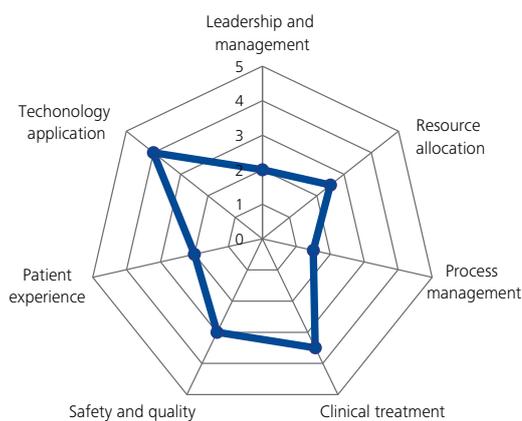
Today's Chinese healthcare market is facing unprecedented challenges: A rapidly aging population and expansion of the national basic health insurance, which led to expedited healthcare market annual growth of 17.6% over the past 8 years<sup>1</sup>. Furthermore, healthcare reform increased market competitiveness through newly formed hospital groups and the influx of private capital funding, thus challenging the status quo of how Chinese hospitals deliver care<sup>2</sup>. For example, the "zero mark-up" policy has left hospitals, especially tier 1 and tier 2 hospitals, questioning how to maintain financial sustainability under the price regulations from payers and government; the "hospital total spending reimbursement policy" challenges hospitals' ability to reinvent cost control mechanisms while providing high-quality and accessible services to the patient population; privately-funded hospitals, despite potential flexibility with their governance models, started to recognize the need to tackle the challenges on talent attraction and retention; and so on.

In order to succeed under these complex industry dynamics, hospitals must build excellent operational infrastructure to become financially sustainable, high-quality and patient oriented institutions. Hospital operations must align with their market assessment-driven goals and strategies, and take a disciplined, programmatic approach to achieving sustainable long term changes.

# 2. PLAGH Case Study

The People's Liberation Army General Hospital (PLAGH) is ranked as one of the top 3 public hospitals in China<sup>3</sup>. With more than 4,000 beds, it is also one of the largest and most reputable multi-specialty academic medical centres with excellent clinical service, academic research and education. Recognizing the challenges it faced to sustain a market leading position, the PLAGH cardiology department engaged Deloitte Consulting China to conduct an operations assessment and identify performance improvement opportunities. A multi-disciplinary team of consultants with clinical and operational expertise fully assessed the cardiovascular service line in seven domains compared to industry leading practices (See Figure 1). Twenty improvement opportunities were identified and prioritized based on complexity, risk, and impact, and then structured into work streams for implementation. A few examples are highlighted here.

**Figure 1: Assessment result of PLAGH Cardiology department using the Industry Maturity Model™**

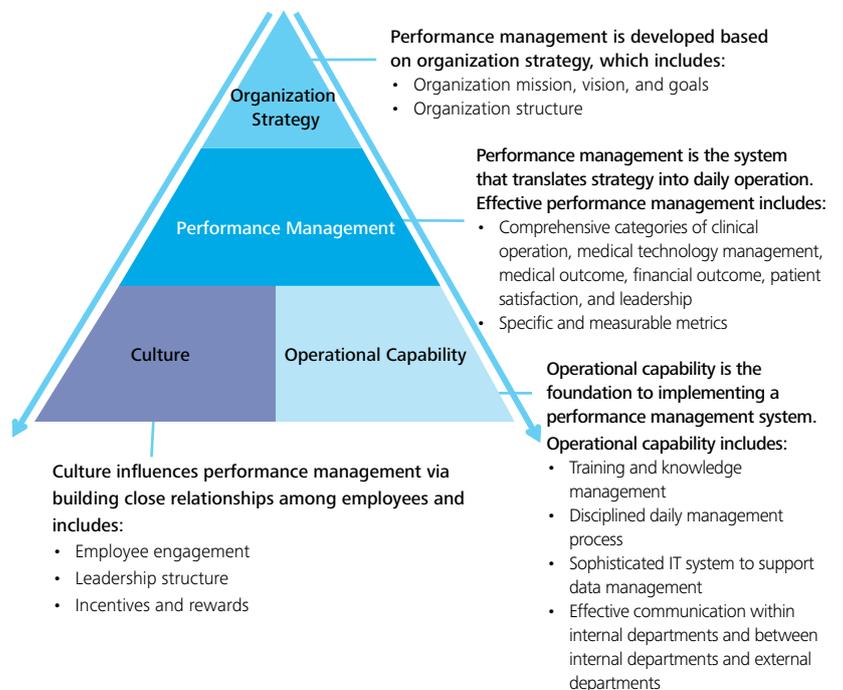


Scale: 1 = Lagging Practice; 5 = Leading Practice

## Aligning department mission and goals with operating units and physician-administrator performance

Performance management is a critical foundation as hospitals examine ways to achieve more with less. It is defined as a system of different processes that combine to create an effective workforce to execute business goals. An effective performance management system should build on the organization's unique culture and capability, and be consistent with the organization's strategy (Figure 2). It enables managers to evaluate and measure operating units and individuals' performance by aligning day-to-day actions with strategic business goals, and providing accountability and visibility for performance expectations.

**Figure 2: Performance Management Structure**



Unfortunately, most hospitals are more focused on balancing distributions among departments than collectively aligning operating units and individual leadership performance with hospital/department goals. This silo-ed model must be discarded and replaced with an incentive model and culture that rewards collective contribution to the organization's strategy. Furthermore, there are no existing standardized and unbiased methods to evaluate physician-administrators performance, resulting in varied leadership engagement and dissatisfaction with compensation. These issues highlight the need for creating a visible and transparent performance management structure.

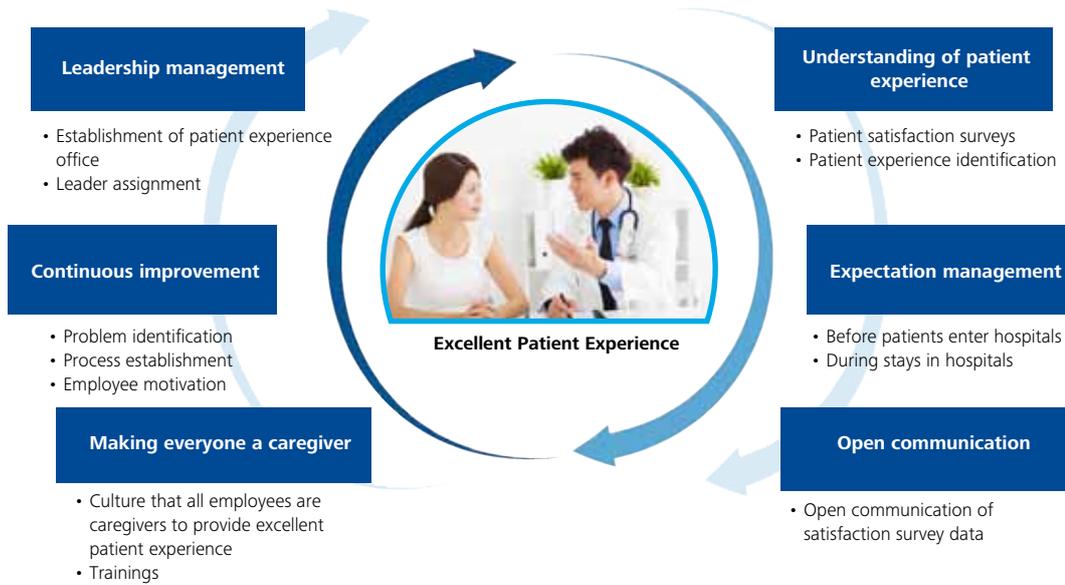
To initiate improvements in the performance management system, the PLAGH Cardiology department started by articulating their department's mission, vision, and values: PLAGH's Cardiology department aspires to be a best-in-class national and international cardiology department which is recognized for clinical excellence and will partner with reputable organizations to influence education and research. Anchored in PLAGH's tripartite mission focused on clinical operations, research, and education, a series of visioning sessions were conducted to identify the key categories for each mission, such as patient experience, clinical outcomes, financial outcomes, talent development, research innovation, and education development. Each category was methodically deconstructed into detailed subcategories with specific measurable metrics with targets on each operating unit's dashboards. Using these categories, the team also designed physician-administrators performance weighted scorecards to further align individual physician leadership performance across the department, operating units, and clinical care team.

### **Improving integrated patient experience**

Patient experience has become a prevalent problem with strained relationships between doctors and patients. For example, a survey by the China Hospital Management Association found that violence against medical personnel increased by an average of twenty-three percent each year between 2002 and 2012<sup>4</sup>. This is driven by fundamental and systemic issues around high medical cost and poor access to care, and further exacerbated by prevailing patient perception of poor service attitudes. These poor patient experiences and strained relationships not only bring potential lawsuits to hospitals but also increase operating costs, decrease employee morale, and can damage a hospital's reputation.

To improve patient experience, hospitals, especially public hospitals, need to transform from a traditional clinician-centred model to a patient-centred service model. This starts with understanding what matters from the patients' vantage point (Figure 3). Clear and concise communication with prospective patients sets realistic expectations for their time during their care journey in the hospital. A typical patient encounter involves not only physicians but also nurses, environmental services associates, food workers, clerks, parking attendants, billing specialists, etc. Every employee a patient interacts with has a potential to impact the patient experience. Consistent training in basic behaviours, role playing, and scripting are some basic steps to help employees put the patient first and start making everyone a caregiver. Nevertheless, these improvements cannot be achieved overnight and must be continuously addressed while prominent leadership try to "hardwire" these behaviours into employee actions.

**Figure 3: Excellent Patient Experience Framework**



To enhance PLAGH’s patient experience, Deloitte Consulting gathered leading practices from international case studies and helped PLAGH set up its complaint management system by applying principles from the Excellent Patient Experience framework. The first step was to establish a patient experience office and a dedicated governance council. This new structure also included clear roles and responsibilities for front line staff and administration to respond and escalate issues within specified timeframes. In

order to determine patient experience trends and manage issues in a timely manner, all issues were required to be documented and scored against a standardized severity ranking. Issues at each severity rank required different triage processes and different response timeframes. These were just some initial steps undertaken to provide specific structure and expectations around the importance of actively listening to patients, and being responsive and communicative about their concerns.

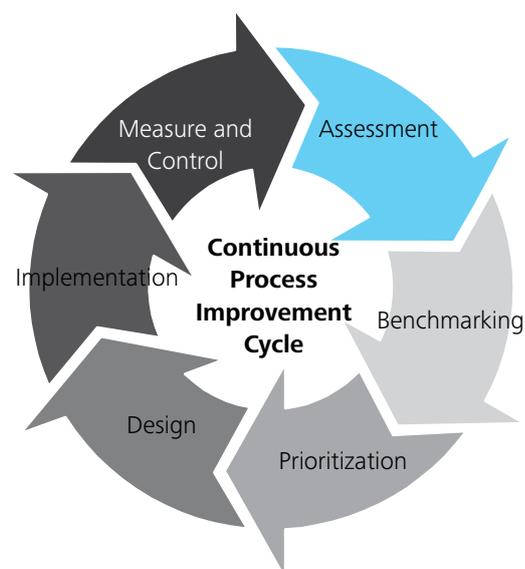
### Building a continuous process improvement system

In the past years, Chinese hospitals have witnessed fast improvement in efficiency, which comes primarily from technology upgrades<sup>5</sup>. In most hospitals, however, clinical pathways and standard workflows are still overlooked while safety and quality have gained more attention. Researchers found that although 59% of hospitals in China have processes/workflows in place, these processes are not regularly updated or improved<sup>6</sup>. Monitoring is also limited; many directors claimed that they do not know whether their staff regularly follow the processes<sup>6</sup>. In order to achieve operational excellence, a continuous improvement cycle including assessment, benchmarking, prioritization, design, implementation, and measure and control must be adopted (Figure 4).

Deloitte Consulting China assessed all aspects of PLAGH’s cardiovascular service line by using the Maturity Model™ (Figure 1) and benchmarked its processes against national and international standards. As a result, twenty opportunities for improvement were identified. Two initiatives were prioritized for implementation: Catheterization Lab workflow and Chest Pain Program triage protocols.

An automatic notification system was designed for the Catheterization Lab to remind unit nurses of the pre-operative tasks and to increase compliance of pre-operative requirements. The process effectively reduces unnecessary paperwork, process delays, and staff overtime, while ensuring

Figure 4: Continuous Process Improvement Methodology



the first-case-of-the-day starting on time to achieve leading standards of 95%. This also adds on predictability to better manage expectations of patients and families, and ultimately increase patient satisfaction. The Catheterization Lab margins are also expected to increase by 3.83 million RMB/year with an increased utilization rate of 9%.

A Green Channel fast-track intake protocol was also developed to rapidly respond to Acute Coronary Syndrome patients. This required effective integration between ER and the Catheterization lab to achieve the target of 90 minutes from “door to balloon”, which is an evidence-based indicator of in-hospital mortality rates.

# 3. Strategies for operations excellence implementation

The PLAGH case is not unique amongst hospitals. Chinese hospitals can all benefit from successful implementation of operational excellence efforts. We have outlined the following lessons learned from Deloitte's experience in China and other countries with the hope of benefiting more Chinese hospitals.

## **Strategy #1 – Articulating the aspirations and strategy for operations excellence across the organization**

In China, most hospitals' strategies only exist in "the mind of hospital CEOs". Departments operate based on their own understandings and interests, which unavoidably creates inefficiency and potential conflicts of interests within the hospital. To build hospital operational excellence, clear aspirations must be defined and communicated across different levels of the organization.

## **Strategy #2 – Assembling a dedicated change management team with strong senior leadership support to drive the operation excellence efforts**

In the US, dedicated teams of clinicians, engineers, and statisticians work together to identify system-wide operational improvement opportunities and manage the changes together with functional leaders. Unlike their US counterparts, Chinese hospitals are not clearly organized and often the team tasked with operational improvement responsibilities do not have the ability to work cross-functionally with strong support of senior leadership. Another benefit of having a dedicated change management team is objectivity. While the project manager or assigned team is familiar with the hospital objectives, their separation from the day-to-day operations of other units allows them to more objectively assess and identify areas needing improvement.

## **Strategy #3 – Implementing a refined performance management system**

A well-rounded improvement solution will fail without a good performance management system which helps translate strategy into results. More progressive hospitals continually assess hospital performance as it relates to quality, staff, patient satisfaction, and to gain the support of senior leadership and frontline staff.

## **Strategy #4 – Objectively assessing hospital performance prior to implementing improvement efforts**

Appropriate improvement objectives cannot be determined without sounding baseline assessment and prioritization of efforts. Although many processes could benefit from improvement, executives are tasked with determining which process improvements will reap the greatest benefits. Many successful hospital executives believe that identifying a few areas to focus the performance improvement efforts on is most likely to yield positive results. Starting with a solid understanding of current performance is essential to accurately prioritizing efforts.

## **Strategy #5 – Integrating operational excellence into the hospital's new growth strategy and initiatives**

Chinese hospitals are pursuing many new growth initiatives. Creating hospital groups or building an affiliated network, investing in telemedicine, and partnering with Internet companies are just some examples. These initiatives present a variety of operational excellence opportunities in both front-end patient and clinical processes and back-end administrative processes. For example, consolidating and streamlining supply chain management when forming a hospital group is an opportunity for operational excellence. We recommend hospitals to make a comprehensive review of the operational improvement opportunities as part of the new growth planning and evaluation process to maximize the outcome of new initiatives.

**Strategy #6 – Streamlining analytics capability for operational excellence**

Current data reporting practices in Chinese hospitals are often disaggregated, which can lead to inconsistent reporting across units. This inconsistency, in return, impedes executives’ attempts to develop an overarching perspective of hospital performance. Outcome-driven data collection processes combined with solid IT systems enable strong data analytics capabilities. In order to do this, Chinese hospitals need to improve its approach in developing IT strategy, making vendor selection decision and implementing the IT systems.

Through these six strategies, Chinese hospitals can capture the real value from hospital operational excellence efforts including improved patient satisfaction, bolstered hospital reputation and brand, and increased competitive advantage and financial performance. We estimate that hospitals would be able to achieve and sustain up to 20-40% improvements in their operating costs from greater operational efficiency, clinical standardization, and efficient supply chain and utilization management.



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