

CASE STUDY

King Abdullah bin Abdulaziz University Hospital



Patient-Driven Process Excellence

Overview

Saudi Arabia is the largest country in the Middle East; it has a population of 29 million and an annual healthcare expenditure of \$US32 billion. In 2014, 97,000 beds in 450 hospitals were managed across three jurisdictions: Ministry of Health; other Government agencies; and the private sector. The Ministry of Health contributed 60% of this capacity, and university hospitals provided 25% via four facilities with a total of 5,000 beds. The Saudi Government's healthcare development strategy involved tripling the university hospital capacity, a prodigious project that involved building 19 new hospitals in five years! One of these, and first to launch, is the King Abdullah bin Abdulaziz University Hospital



Customer Background

Riyadh, the capital city of the Kingdom of Saudi Arabia, has a population of six million, and a city and suburban area of 1,500 square kilometres. Covering eight square kilometres of that area is the campus of the world's largest university exclusively for women, the Princess Nora bint Abdulrahman University (PNU). This campus houses 15 colleges, teaching approximately 41,000 students and supported by some 5,700 staff. The size of the campus is highlighted by an 11.5 km driverless light-rail system used to transport students and staff between the different facilities. The campus is a city within a city, and to its south is the King Abdullah bin Abdulaziz University Hospital (KAAUH).

The Challenges

For KAAUH, everything was new; everything needed to be designed, developed, and delivered. A brand new hospital building was empty: no staff, equipment, or patients. A small executive team began the complex tasks of developing a hospital strategy, as well as plans to operationalise that strategy. Hundreds of staff needed to be recruited, many from overseas to avoid causing hospital staffing problems elsewhere in the Kingdom. All of this was accomplished in a tight timeframe.

Importantly, a key element of the task set for KAAUH was to be a role model for the other 18 university hospitals being launched in the following five years. Commissioning 19 hospitals in five years is a daunting prospect, and success demands constructive leadership, innovative development, and creative management. As 'Hospital #1', KAAUH must create a reusable reference model for contemporary hospital operational excellence.

Project Outline

This project was conducted through our Arab States partner, ES Consulting. The initial requirement was to develop the overall strategy, documented in strategy themes and a strategy map. Leonardo Consulting's task was to translate that strategy into a hospital process architecture, process performance measures, and mechanisms for ongoing process management. The process architecture would be the central artefact of an integrated business architecture facilitating patient-driven healthcare delivery. It was also vital to ensure that the process architecture work was properly integrated with the patient safety and quality standards required for accreditation in accordance with the Joint Commission International (JCI) global standards for hospital healthcare delivery.



A range of training courses, workshops, and executive briefings prepared executives and staff for the process analysis work. It was important to ensure that all participants had a clear and shared understanding of the theory and practice of process-based management. Following these discussions, a series of workshops developed a three-level business process architecture for the complete hospital enterprise. The starting point for the process architecture was the hospital's strategy themes. These were translated into the highest level of cross-functional processes – which, in turn, were decomposed to lower-level processes. The executive team and many operational managers were involved in this work. Besides developing the required business process architecture, the staff that were involved found the exercise an excellent way to discuss, challenge, and embed the hospital's strategic intent and general operating model.

Once the key high-level processes were defined, performance targets were needed for them. Cross-functional processes are the only way the hospital (or any organisation) can deliver value to its patients (customers) and other stakeholders and, therefore, it was important to know whether the processes were working well. The critical few performance targets were discovered for the key processes, along with related measurement methods (i.e. the mechanisms for gathering the performance data). This set of process performance measures reflected the hospital's strategic objectives, operational requirements, and accreditation standards.

Next, recommendations were made for the design and implementation of process governance mechanisms. These would properly integrate with patient safety and quality governance to maintain focus on discovery and the elimination of performance gaps, while meeting the requirements for the delivery of safe, high-quality healthcare.

In general, throughout the project and since, Leonardo Consulting has provided advice to the CEO and Deputy CEO regarding the development of business process theory and practice to achieve hospital healthcare process excellence.

Benefits Delivered

The project delivered many important and ongoing benefits for both this hospital and those that are following its lead:

- Documented high-level business processes, providing a sound basis for ongoing process modelling, management, and improvement
- Linked hospital strategy themes and objectives to operational business processes, giving an integrated management and operations model
- Supported the achievement of hospital accreditation by defining the care delivery and support



processes

- Provided business process details to accelerate IT systems development
- Enhanced the level of management understanding of the importance of process-based management
- Provided sound methodology, documentation, reference projects, tools, and techniques for ongoing process management and improvement
- Enabled the development of the strategy management office with overall responsibility for support of ongoing process-based management
- Contributed to the development of a hospital business process reference model to be used by 18 other teaching hospitals being built in Saudi Arabia.

Summary

The application of process-based management techniques to the design and operation of a complete hospital breaks new ground. Discovery and documentation of the KAAUH business process architecture provides a unique opportunity to develop and prove a global reference model. Hospitals are complex, dynamic systems with many interdependent physical, technical, and human elements that come together in support of life and death. Their importance as key hubs of healthcare delivery, and the impact they have on the communities they serve, makes them fitting targets for research. This project has made many important contributions to the development of hospital healthcare operational excellence.

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Client references for this project are available on request.