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The changing face of healthcare in Saudi Arabia

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Many countries now struggle to provide cost-effective, quality healthcare services to their citizens. Saudi Arabia has experienced high costs along with concerns about quality of care in its public facilities. To address these issues the country is currently restructuring their healthcare system to privatize public hospitals and introduce insurance coverage for both foreign workers and citizens. The changes provide an interesting and insightful case for the challenges in radically changing a country’s healthcare system. The situation also demonstrates a unique case in the Middle East for greater reliance of the private sector to address rapidly escalating healthcare costs and deteriorating quality. The complexity of changing a healthcare system is discussed with the many challenges associated with the change.

Many countries across the world are struggling to improve healthcare quality, contain or control costs, and provide access to healthcare for their citizens. Much has been written about United States and European struggles to balance quality, cost, and access to healthcare. The situation in the Kingdom of Saudi Arabia is less well known, but is distinctly unique, with fascinating reforms taking place that will radically change the way healthcare is provided. The country has offered comprehensive, universal access for many decades, and now, as a result of spiraling costs and perceptions of low quality, is radically reforming the healthcare market by introducing private health insurance, fee-for-service medicine in governmental hospitals, and the privatization of hospitals.

An overview of the Kingdom of Saudi Arabia

With its land area of a 2 250 000 square kilometers, the Kingdom of Saudi Arabia is the largest country in the Middle East, consisting of mostly desert and huge subterranean reserves of oil. The Saudi economy continues to be highly dependent upon oil demand and pricing. During the 1990s and early 2000s the decrease in oil prices lowered the gross domestic product per capita income from almost $14 000 in 1980 to $7 830 by 2002. Saudi Arabia has the largest reserves of petroleum in the world, and is the largest exporter. In the early 1980s the government’s budget went into a major deficit, and since the 1990s the government has been working to bring this back into balance, and to encourage private economic activity.1

The population of Saudi Arabia has expanded rapidly in the past few decades from approximately 7.3 million people in 1975 to approximately 24.6 million in 2005.2 Two factors that affect healthcare services are the large percent of foreign workers in the country and the high percentage of young people. About 25% of the population, or about 6.1 million people, are considered foreign nationals. Also, 40% of the population is under the age of 15 years and only 3.5% of the population over the age of 65.3 As will be seen, the presence and number of these foreign nationals and demographics profoundly affect the future shape and direction of the Saudi healthcare system.

Health services in Saudi Arabia

Overview

Healthcare in Saudi Arabia currently is provided free of charge to all Saudi citizens and expatriates working in the public sector, primarily through the Ministry of Health and augmented by other governmental health fa-
Healthcare in Saudi Arabia

Healthcare services in Saudi Arabia are provided through three main sectors: the MOH network of hospitals and primary healthcare centers that are distributed throughout the country, other governmental institutions, and the private sector. The MOH is the largest provider of healthcare services in the Kingdom, providing over 62% of inpatient care. Although the MOH is charged with the healthcare of the entire population, other governmental and private facilities are also important healthcare providers and provide over 20% and 17% of the inpatient facilities health services, respectively.

The country is divided into 13 regions and 20 health directorates. Each directorate enjoys relative autonomy in managing their health affairs, subject to the reasonably loose policy guidelines set by the MOH. Regions are provided lump-sum budgets, which they then distribute to their hospitals. The MOH focuses intensely on prevention and primary care and sponsors over 3300 health centers across Saudi Arabia.\(^1\) These form a “gate-keeping” function for referrals to general and specialized hospitals. Citizens can generally only access the primary care centers in their residency areas.

Other governmental sector healthcare providers, funded outside the budget of the MOH, include facilities that are highly respected, and generally, considered better quality. These include facilities funded by the Ministry of Defense and Aviation Medical Services, Ministry of Interior Medical Services, National Guard Medical Health Affairs, university hospitals, KFSH&RC, and others. The second largest healthcare provider, other than the MOH, is the Medical Services Department of the Ministry of Defense and Aviation, which has over 4000 hospital beds and employs over 2400 physicians. The National Guard Health Affairs (NGHA) provides a comprehensive health system primarily focused on providing healthcare services to employees of the NGHA. Their main hospital is the tertiary facility, the King Abdulaziz Medical City (KAMC) in Riyadh. Overall, KAMC has 900 hospital beds, 1019 physicians, and 1721 nurses. The Security Forces Hospital is a 508-bed tertiary care referral facility that is internationally accredited. They also sponsor 73 primary healthcare centers. KFSH&RC is one of the most specialized of Saudi hospitals. KFSH&RC is one of the larger tertiary hospitals in the Middle East. It is an 844-bed tertiary care hospital providing highly specialized treatment to the people of the kingdom. It serves Saudi citizens for tertiary care services and the extended royal family and dignitaries for all levels of care.\(^4\) The Kingdom also has four university hospitals associated with associated medical schools.

The private healthcare sector has grown rapidly since the advent of interest free loans from the government to construct private facilities. The private sector grew rapidly over the past several years and expanded its services, especially in large cities. In 1971 there were only 18 private hospitals, but this number had grown to 75 by 1996 and to 113 by 2005, accounting for approximately 21% of all hospital beds.\(^3\) The private sector has been the primary service for foreign workers. Foreign workers, until recently, have not been allowed to use MOH facilities, except for emergencies. However, the private sector has also primarily served Saudi citizens. In 1995 approximately 80% of all private healthcare services provided were given to Saudi citizens, who were eligible for free services through the MOH.
The use of global budgets in Ministry of Health hospitals made the construction of private hospitals a positive event for the public hospitals, as patients obtaining care outside of MOH hospitals preserved more of their global budgeted funds. Initially the private hospitals were small, generally physician-owned facilities funded primarily by out-of-pocket and expatriate payments. However, the move to provide insurance coverage has recently encouraged the entrance of multi-hospital systems into the market.

**Current healthcare system in Saudi Arabia**

During the early 1950s, the country began to design its first structured health system based on a mixed private, public, and other governmental sector model. Saudi Arabia oriented its health-care system towards primary healthcare-based services encouraged by the MOH. Networks of primary health centers are now scattered across the kingdom and associated with local hospitals. Patients requiring higher levels of care at MOH facilities must receive a referral from a primary care physician. In the past decade this role was strongly enforced, which improved appropriate utilization of services and subsequent cost reduction. The primary care program in Saudi Arabia has achieved considerable success since its establishment. This success is reflected in good access to and high rates of immunization, maternal health, and control of endemic diseases. However, concurrently this also has encouraged longer waits for hospital care, overutilization of the emergency departments, and increased use of private healthcare services. In public hospitals waiting times for non-emergency surgeries may be several months to a year. Overall, the public perceives the quality of MOH services is much worse than those offered by private companies or other governmental healthcare providers.

The Saudi MOH has served the traditional role of the chief governmental health coordinator. The MOH has a broad scope of regulatory powers. These include regulating health products and quality of services, and setting prices. It also allocates global budgets for each hospital through each regional health directorate. However, one significant difference is the lack of comprehensive authority. Unlike many countries where the healthcare ministry exercises authority over all segments of their healthcare systems, the Saudi MOH lacks authority over two important public sector health systems. The university teaching hospitals and the military hospitals fall outside of their purview. Also, the MOH exerts only indirect control over the growing private sector.

University hospitals are directly under the Ministry of Higher Education and receive direct financial allocations from the Ministry of Finance. The military hospitals, the National Guard, Armed Forces, and Interior hospitals are directly governed and funded through their respective ministry budgets and can be seen as competitors for healthcare budget allocations to the MOH. This allows for wide variation in funding levels and personnel policies. For example, the funds allocated per bed are significantly higher in the non-MOH hospitals and physicians who work for the National Guard Hospital may earn two to three times the amount that physicians working for the MOH make. These facts create the perception that service quality, ease of access, and technology is much higher in non-MOH hospitals.

The MOH does have the authority to set prices and establishes them according to tiered levels, which is mostly applicable for private services. Hospitals may receive one set of prices based on three different tiers, as determined by their service levels. This dictates the prices that they can be reimbursed for private services. The MOH also sets maximum charges for pharmaceutical drugs.

**Today's challenges in the Saudi health services**

**Composition of the health force**

Because of the rapid industrialization of the country, the educational infrastructure has not existed in the past 40 years to produce an adequate number of physicians, nurses, and healthcare technicians. Even though the educational capacity has drastically increased, the vast majority of healthcare professionals in Saudi Arabia continue to be non-Saudis. Although intensive efforts have been made to increase the number of Saudi physicians and nurses, they comprise only about 17% of the total number of physicians and nurses in the country. Nurses come from over 40 countries, including the USA, Canada, Australia and the Philippines. Often the health manpower picture in Saudi Arabia is referred to as the "United Nations of Health Professionals", reflecting the large number of countries represented. Since foreign nationals tend to remain in the country only a short time, continuity is a problem. The average tenure among non-Saudi physicians and nurses is just 2.3 years. This turnover creates many problems, including obsolete and unused expensive equipment left when foreign professionals depart as often new physicians will often demand specific equipment as terms of their contract, which often remains unused or underused after their departure. These professionals also receive very generous premiums for vacation and holiday
pay. To attract healthcare professionals, hospitals provide up to 58 days leave per year. Interestingly, Saudi physicians tend to work more often for the MOH and the other governmental hospitals. In 2005 a total of 3541 Saudi physicians worked in the MOH, which comprised 19% of total MOH physicians compared to only 5% working in the private sector.3

Lack of capital and human resource acquisition coordination
As competition for patients has begun to increase, the incentive for each sector of the healthcare system to obtain and operate the latest capital equipment has been amplified. The acquisition of expensive equipment enhances the reputation of the individual facility. Under global budgets for operations and special allocations for equipment, with no cross-sharing of costs, individual facilities may augment their reputation by obtaining sophisticated equipment, but have little incentive to use it efficiently. In fact, if the service is used less frequently the operating costs saved can be retained and used for other purposes. This is especially true in underfunded organizations, which most of the MOH hospitals could be considered. MOH hospitals with sophisticated technology have no incentive to attract patients from other facilities that would increase their operating costs. The lack of existing coordination and no budgetary incentives for cost sharing tremendously reduces the possibility of sharing equipment across facilities and health sectors. Thus, expensive capital equipment is underutilized across the Kingdom. The dearth of highly trained medical professionals augments problems associated with not sharing equipment. As with many countries, technicians to operate new technology are in high demand. Having too many sites accentuates this shortage and results in some facilities without adequate personnel to operate the technology, while other facilities have personnel that are not busy much of the day.

Rapid increase in health expenditures
Like many industrialized countries, Saudi Arabia has experienced a recent rapid increase in healthcare expenditures. Since its establishment in 1950, the MOH has spent over 73.6 billion US dollars. The MOH budget represents 6.8% of government expenditure. This is an average expenditure of US$171 per capita, up from US$112 in 1993. Total expenditure on health is 4.6% of GDP. Of this, 74.6% is from government and 25.4% from private expenditure.9

The rapidly growing population, increasing at the rate of 3.6% annually, has been a key factor in the rise of health expenditures. The population is now extremely young and few are over the age of 65. Another contributing factor to escalating costs has been free services for all Saudis. Free services without a deductible or co-insurance payment, coupled with virtually no economic constraints on the provider, combine to greatly inflate the volume and intensity of services used. At the same time there has been a growing awareness of the availability and a growing consumer demand for specialty care and high technology. As in most industrialized societies, the media and internet have sparked sharing of information and increased demand for specialty care. Consumers, without any economic consequence, demand the highest level of care possible, which increases cost.

The increased demand, coupled with slow construction of more capacity, has lead to long waiting times for many services and facilities. Common waits for non-emergent care may exceed months or years. To meet the current and growing demand, projections indicate that Saudi Arabia will require about 25,000 new hospital beds before 2010.10

The means of reimbursement
Reimbursing private health services on a fee-for-service basis without quality or consumptive controls has also escalated the costs of medical care. Even though this only accounts for about 20% of current healthcare expenditures, this method of payment increases the incentive for more services and anecdotal stories suggest that physicians at many private hospitals receive a percent of all ancillary charges they generate, creating incentives to order unnecessary or marginally needed tests. At present, governmental controls do not exist to monitor the appropriateness of care in the private sector.

Increasing competition
For years, as the public hospitals received global budgets, they perceived the growth of the private hospitals near them to be beneficial. Since MOH hospitals were constrained by a total amount of money per annum in their global budgets, any services that could be performed outside their facilities directly benefited their budgeted expenses. However, public hospitals today are being allowed to generate outside income and private facilities have now become direct competitors. Loss of paying patients to the private hospitals now directly takes revenues from the public facilities. To attract paying customers many hospitals have opened what they term “business centers.” These are clinics from primary to tertiary care services, established to serve paying patients, both Saudis and non-Saudis. Some of the larger...
The Saudi healthcare system currently exists as a predominately public-funded and public-owned system of healthcare. However, there are now proposals to radically change the way healthcare is provided and funded. The MOH proposes to privatize all state-owned hospitals by 2008 or 2009, while retaining their physician clinic networks. The introduction of private insurance will also significantly change the healthcare system. Privatization of public facilities is intended to occur by selling or renting the hospitals and clinics to private firms and/or potentially creating a quasi-independent corporation owned by the state to manage and operate hospitals.11

The plans to privatize hospitals and introduce private insurance will have significant effects on the Saudi healthcare system. The plans will have different effects on the overall healthcare system. Selling healthcare providers to private interests will dramatically change the motivations and incentives of providers. Positive effects would include additional state revenues from the sale of hospitals, the increased motivation to provide more efficient healthcare, and the transference of the liability for the operation of providers from the government to private groups. Privatization will probably create a more efficient system, employing fewer employees and, from the government's budget perspective, drastically reduce the amount expended for healthcare. However, without adequate controls private hospitals may raise charges and total governmental healthcare payments may remain the same or actually rise, as a result of higher prices to pay for profits and marketing.

Another issue that may arise is the survivability of the more badly run, large hospitals that have taken care of the poorer populations. Few private groups will be interested in these hospitals. For example, one hospital now is functioning in a reconverted hotel and lacks much of the infrastructure normal hospitals have (sinks, toilets, gases, etc) and would require huge capital investments to upgrade the physical structure. These hospitals will most likely be spun off into corporations and owned by the state. However, when the full population is covered or almost covered by insurance and patients have a choice of hospitals to use, few may be willing to seek services from the poorer, rundown facilities. If these hospitals' volumes decline substantially, the MOH may be faced with the option of heavily subsidizing or closing the hospitals. Given the political situation, both options may be very difficult.
Health insurance in Saudi Arabia

A major change in the funding of healthcare in Saudi Arabia began with the introduction of health insurance. In 2002, the Health Insurance Council was formed, with the charge of guiding the introduction of mandatory health insurance that was to be implemented in various, gradual phases. The first phase required employers of more than 500 employees to pay for insurance coverage for foreign workers and their dependent family members. The second phase applied to companies with more than 100 employees. The third phase included coverage of all employers and their employees. The government now plans to implement insurance coverage for all Saudi citizens, before they privatize state-owned hospitals. Although the details have not been announced, the insurance coverage is intended to provide Saudis with the ability to choose their providers and is supposed to cover all Saudis by 2009.12 When fully implemented, all businesses and government ministries will be required to offer a basic level of benefits for all employees. As now planned, a governmental subsidy will be provided to cover the cost of the insurance premium for all Saudis not working for private companies. Businesses will be required to purchase insurance for all their employees.

The transition to a national health insurance program is expected to reduce the government’s share of healthcare expenditures by beginning wage-based contributions toward healthcare premiums. The third phase was implemented in 2005 and expatriates, making up about 25% of the population, have been required to have health insurance coverage. Requiring insurance will have the direct effect of allowing the risk of annual healthcare expenditures to be shifted from the government to an insurance company. This will permit the government to better project the annual healthcare expenditures, and potentially, reduce costs if insurance companies introduce co-payments, deductibles, and utilization review mechanisms. The introduction of health insurance is intended to free the Kingdom from some of the financial burden of providing free medical care to all nationals and some foreign workers in the country. Furthermore, this will ensure that expatriates have medical care coverage and allow greater freedom of choice.

The concept of cooperative health insurance has been deemed consistent with Islamic teaching and opened the way for the first company, the National Company for Cooperative Insurance (NCCI) to offer the first medical insurance policy in 2004. By early 2007 13 other insurance companies received approval to operate in Saudi Arabia and 18 more were waiting for approval.13

The effect of an insurance-based market for Saudi Arabia

The implementation of private healthcare insurance for all Saudi citizens and expatriates is now taking place. In reality, all Saudi citizens currently have national health insurance. The major change for Saudis will be to allow them to opt out of the traditional governmental facilities. Adding private health insurance will probably not change the healthcare utilization substantially, unless concurrent changes are made to the provider payment systems and/or the addition of patient deductibles, co-insurances, and utilization review. If these changes are made, the effect upon the market structure, patients, and providers will be significant. If these changes are made and a more competitive market ensues, the existing private hospitals in Saudi Arabia may be best prepared to act and benefit by taking sizable volumes of patients from the market. Initially the loss of patients may be welcomed by the public facilities, as waiting lists would be reduced. However, when the demand drops below capacity levels and vacant beds ensue, public healthcare facilities will then become concerned.

The existing MOH hospitals are not prepared for this changing environment and many will be at a significant strategic disadvantage if they wait until their volumes decrease before acting. Current MOH facilities lack many managerial skills that will be required to transition to an environment of greater competition. Although there are now university programs in Saudi Arabia to train healthcare managers, these are rather recent in origin and have a limited number of graduates. There is also a current reliance on and belief that physicians should direct the healthcare system. The vast majority of the physician managers are untrained in management. As competition increases, untrained managers will struggle, as they are asked to analyze opportunities and coordinate the increasingly complicated and competitive system, if appropriate training is not provided. Likewise, managerial structures needed to compete are not present in most MOH hospitals. For example, sophisticated billing systems and appropriate budgeting do not exist in these facilities.

Provider Networks

Insurance companies will certainly seek to establish networks that guarantee desirable access and quality to attract business. As more insurance companies are approved, different options of provider networks will be created, including Health Maintenance Organizations (HMOs) and Preferred Provider Organizations (PPOs) networks. These organizations may establish
restrictive networks of physicians to control quality and cost. However, given the inherent difficulty that HMOs and PPOs have had in identifying quality healthcare, they will certainly push for cost concessions.

The establishment of networks may also significantly impact the large, urban MOH hospitals that currently suffer from perceptions of poor quality, as mentioned above. As more people enroll in HMOs and PPOs, which direct patients through financial incentives to preferred providers, the inefficient and poorly perceived hospitals that will certainly be left out of many networks will see a precipitous drop in their patients. As indicated above, this may lead to the MOH to either subsidize or significantly downsize and/or close these facilities. On the other hand, if handled correctly, this may be the opportunity to reposition hospitals with high costs and/or poor reputations and ultimately improve their services.

The future of Saudi healthcare

The struggle to provide quality healthcare for a nation’s population at an affordable cost is a challenge for any nation. The Kingdom of Saudi Arabia, as with many nations, is seeking to reconfigure its existing healthcare system to improve the quality of care its citizens receive and control the burdensome, escalating costs. To do such they are embarking on a free market strategy to achieve these changes by introducing healthcare insurance and privatizing public hospitals.

We predict that these changes will have both positive and negative effects on the Saudi healthcare system. As healthcare insurance provides additional options for the population and the incentives for the insurance companies to control utilization move forward, we believe that waiting lists for care will be dramatically reduced. If the future mirrors the changes experienced in the United States following the implementation of managed care, the lengths of stay (LOS) especially, will decrease in hospitals. The decline of LOS has contributed to the bulk of cost savings in the US. Research has found that the declining LOS accounted for 97% of the savings in cost per discharge.14

More equitable and less varied care may also result from the proposed changes. If all Saudis have healthcare insurance and can, therefore, access any hospital in their insurance network, hospitals will have to improve their quality and reputation to prosper. As described above, currently the different segments of healthcare are perceived to offer different levels of quality and the proposed changes may pressure poorer quality providers to either improve or go out of business. To assist in the equalization of care the MOH is developing a national accreditation body and plan to require all hospitals being reimbursed by insurance to be accredited.

On the other hand, these changes may actually diminish the quality of care as insurance companies and private hospitals drive down costs. Given the difficulty in measuring quality, privatized hospitals may substitute lower-cost services, such as hiring foreign physicians. Saudi physicians are much more expensive and almost impossible to terminate. Those facilities with fewer existing Saudi physicians may have economic advantages going forward.

Also, many of the tertiary services providers may struggle to transition to a cost-driven environment. Currently, the academic and specialty hospitals’ costs in Saudi Arabia are two to three times the cost per bed of MOH facilities.2 Potentially, many of these may require continued governmental support to survive. Some facilities will not be prepared for such radical changes and, most certainly, will merge or close.

Effectively managing the private health insurance market is particularly important for developing countries in which private coverage may be the only form of financial protection available to the population who lack a public safety net. As Saudi Arabia transitions to a more private healthcare system, caution should be taken to maintain a strong government stewardship of the market and a robust regulatory framework. The introduction of private insurance and hospitals will inevitably raise the opportunity for unintended distortions in the efficient functioning of the market and the government should be cognizant of the problems these changes create and be prepared with regulatory and market alterations to address these issues.9

Whatever the final destination of the healthcare system in Saudi Arabia, the future will be very interesting. The challenges of radically changing the direction of a healthcare system are daunting, but it appears that there is a need and political will in Saudi Arabia to begin this process. The health and well being of its population will be directly affected by these changes and it is paramount that continued monitoring and adjustments be made as this complicated process goes forward.
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