CASE STUDY

Creating the Largest Hospital Network in Brazil

Rede D'Or:
Delivering Quality, Efficiencies and Innovation—Sustainably

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IFC International Finance Corporation
WORLD BANK GROUP
Creating Markets, Creating Opportunities

ABOUT IFC

IFC, a member of the World Bank Group, is the largest global development institution focused exclusively on leveraging the power of the private sector to tackle the world's most pressing development challenges. Working with private enterprises in more than 100 countries, IFC uses its capital, expertise, and influence to help eliminate extreme poverty and promote shared prosperity.

ABOUT THE CASE STUDY

Expanding access to quality and affordable healthcare is a central element to eliminating extreme poverty and promoting shared prosperity. The World Bank Group has a goal to end preventable deaths and disability through Universal Health Coverage (UHC). In many developing countries, governments do not have the capacity to service the entire population and private health care providers often play a critical role in meeting societal needs.

IFC is developing case studies that demonstrate the ability of the private sector toward achieving global and national healthcare goals. Through a focus on efficiency and innovation, certain business models can provide better outcomes at a lower overall cost to society.

WRITTEN BY

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EXPANDING ACCESS TO QUALITY HEALTHCARE

At first, Fabiana Ebani wondered why she was short of breath, but that was the start of a rare condition that eventually made her so weak that she struggled to brush her teeth. The 34-year-old nurse, wife, and mother of an 8-year-old son, had to quit her nursing job because she lacked strength. She was diagnosed with severe cardiomyopathy, a form of heart disease, and she needed a heart transplant to survive.

In March 2016, she traveled 200 kilometers from her home in Macaé, an industrial city, to be hospitalized at CopaStar, in Copacabana, in the state of Rio de Janeiro. CopaStar specializes in highly complex medical and surgical care for trauma, neurology and cardiology, and has robotics technology. She chose CopaStar because of its advanced technology and medical expertise.

When she arrived, Fabiana's heart was only pumping 800 milliliters of blood per minute—normal blood flow is 4 liters. Soon after being admitted, she suffered six heart attacks in one day. Since no heart was available for transplant, the medical team connected her to a Centrimag, an artificial heart, which performed the function of the left ventricle for 53 days. The prolonged use, well over the recommended length of 30 days, was a tribute to the excellent care she received, which was manifested through careful attention to details that prevented the development of blood clots and infections. Dr. Jacqueline Miranda, the cardiac intensive care unit manager explains, "Until very recently, we would not have been able to keep this patient alive. Few teams are prepared for this medical approach."

Once a compatible heart became available, the transplant went smoothly and Fabiana spent three days in the Intensive Care Unit. She later started rehabilitation with the hospital's physiotherapy and other specialist teams who coordinate for seamless operation. Fabiana declared, "I was given the best assistance, not only in quality but also in the warmth of care from the medical team."

"We need to be able to address high complexity cases locally. We have attracted highly specialized physicians and invested in modern technology to provide greater access to top quality care in Rio de Janeiro. Through our partnerships with health insurance carriers, we are exponentially expanding access to quality healthcare to more patients."

Dr. Jorge Moll
Founder and Chairman of the Board

Dr. Jorge Moll, a cardiologist, chairman of the Board, and founder of Rede D'Or São Luiz, S.A. (RDOR), explains, "We had just inaugurated the CopaStar hospital six months prior to this surgery, precisely to address high complexity cases locally. Until now, there was no local hospital in Rio de Janeiro state that could address high-complexity patients at a level on par with the Sírio-Libanês and Albert Einstein hospitals in São Paulo. Now, patients do not need to fly to São Paulo. CopaStar is a top caliber hospital, because we have attracted highly specialized physicians and we have made investments in the most modern technology available in the medical market. Our physicians were able to conduct two highly complex surgeries and provide a sophisticated level of intensive care after the procedure to keep Ms. Ebani alive."

"With the prices that RDOR was offering, employers expanded insurance coverage, offering access to lower income workers who never previously had health coverage."

Paulo Moll
Executive Vice President

RDOR is a privately held, for-profit, holding company of a network of hospitals that has become the largest independent operator of hospitals in Brazil, with 37 hospitals and 5,200 operational beds. RDOR offers a wide range of services including emergency care, imaging, surgery, and maternity care. The network has a presence in four states: Rio de Janeiro, São Paulo, Federal District, and in Pernambuco, a traditionally underserved market in the less developed region of the Northeast. In addition, RDOR has 35 oncology clinics in seven states.

Together with insurance companies, RDOR has helped to control the growing cost of healthcare and expanded access to quality hospital services to a broader segment of Brazilian society, including lower income workers, such as nurses, industrial workers, and administrative staff, who never previously had health coverage. The availability of health insurance has boosted patient volumes. In 2016, RDOR's emergency rooms attended to 3.35 million patients and one hospital alone saw nearly 300,000 patients. The network delivers quality care through a cadre of 40,000 employees, of which about 75 percent are female, and 8,500 are permanently contracted doctors. Five hospitals are Joint Commission International (JCI) certified, while 25 hospitals are certified either by Canadian or Brazilian bodies.

In a country that is grappling with a deep recession and that is suffering from a shortage of good quality hospital services and beds, RDOR is helping to fill a void by opening greenfield hospitals and acquiring struggling hospitals. RDOR not only prevents ailing hospitals from closing, but invests in them and reorganizes them into well performing, sustainable care providers.

The entire network benefits from attracting top physicians who are interested in conducting research through RDOR's Institute for Research and Education D'Or (IDOR). IDOR is expanding the number of qualified medical professionals through it's very popular residency and internship program and it is opening a School of Medicine in 2019. It has received international attention for its groundbreaking research, discovering the link between Zika virus and microcephaly.

Since 2010, IFC has played a catalytic role in the growth of the company with a total of four loans to the Rede D'Or Group, totaling $230 million from IFC's own account, including a loan in 2007 to São Luiz Hospital, with which RDOR later merged. IFC mobilized an additional $285 million from third party lenders. The funds were used to expand hospital beds and grow the network. This funding aided the company in becoming the largest private hospital operator in Brazil. In 2016, RDOR had net revenues of R$7.9 billion ($2.3 billion).

KEY SUCCESS FACTORS

RDOR is demonstrating how a hospital network can be more sustainable than smaller, independent hospitals in Brazil. The keys to RDOR's success are medical quality, patient satisfaction, and a long-term view that is anchored in efficient financial management. Its robust business intelligence platform underpins all the areas. RDOR is led by a top management team that provides governance, structure, and promotes accountability.

MEDICAL QUALITY	Medical Quality has been in the DNA of the company since RDOR was founded and guides all decisions. RDOR has built a solid brand reputation because of the quality of care it delivers. Management is obsessed with recruiting the best physicians. It has increased the clinical team-to-bed ratio, and it has installed the latest technology. Quality oversight is coordinated at the corporate level. It organizes processes very well, communicates standards, and holds staff accountable. In response to gaps in the market, it is filling a void with Onco D'Or, a network of 35 cancer clinics, which will soon be complimented by three specialty hospitals. Until recently, the best cancer treatment was reserved only for the wealthy, but Onco D'Or recruited the leading cancer specialist in Brazil to provide that same high-level standard of care to thousands more people across income levels.
PATIENT SATISTACTION	Patient Satisfaction is critical to RDOR's operations and to the company's identity. The principle job of each hospital management team is to align all the operations around patient care and satisfaction. RDOR shifts the typical back-office bureaucracy that tends to occupy management time to a corporate shared services center to free up management to walk the halls of the hospital and focus on delivering the best quality of care. RDOR aligns its operations to reflect patient expectations by designing features, such as architectural designs and work-flows, from the patient's perspective. It created a "Smart Track" system that gets emergency room patients to a doctor fast, without triage. Patients evaluate services through a survey. This gives management additional insights on areas that are working well and other areas that need reinforcement. Because of this focus, it has created a top-quality hospital network and brand that is in demand—patients want to go to their facilities and insurers want to include them in their networks.
EFFICIENT FINANCIAL MANAGEMENT	RDOR takes a long-term view to the sector which guides financial decisions and investments and promotes efficient financial management. RDOR's financial performance is the strongest among its peers, because it has high levels of control over the operation that leads to increased efficiencies and profitability. Insurance is RDORs main source of revenues and RDOR works jointly with carriers to bring in volumes and pilot new areas for reducing or slowing the growth of healthcare costs, such as through bundling payments for certain procedures. It manages its staffing operations strategically if occupancy rates fall below 80 percent. Because of its scale, it can extract efficiencies through its corporate shared services center. Since it procures in large volumes, it negotiates better prices for medical supplies, equipment, and technology. With the savings generated by these efficiencies, it offsets the high costs of additional staffing and the latest technology. Its robust business intelligence platform provides management with timely data to make decisions.
MANAGEMENT	The three pillars above are guided by the Moll family, who retains control through the board, and a career CEO. Together, the Board and the CEO have reinforced governance as well as strengthened the management team and structure to position the company for sustained growth as it consolidates more hospitals in its network. Management aligns the culture and goals through key performance indicators that promotes accountability.

Between 2010 and 2017, RDOR grew from 500 beds to 5,200 beds and continually added complexity.

HISTORY: FROM INNOVATIVE "CARDIAC DIAGNOSTICS LAB" TO THE LARGEST HOSPITAL NETWORK IN BRAZIL

Soon after graduating from medical school in the 1960s, Dr. Jorge Moll, a cardiologist working at a philanthropic institution, and his wife, Dr. Alice Moll, a general practitioner working in the emergency room at the public hospitals in Rio de Janeiro, became aware of a new technology that was emerging in the United States. He traveled to San Francisco and realized how two-dimensional echocardiography and ultrasound could revolutionize the way diseases could be diagnosed more accurately. He decided he wanted to introduce this technology in Rio de Janeiro.

Realizing that the number of patients in one practice could not support the cost of the equipment and further, that community doctors would not generate referrals to a competing medical practice for fear of losing patients, the couple decided that the solution was to stop seeing patients. Dr. Jorge Moll would run the cardiac test side of the business and Dr. Alice Moll would run the ultrasounds. In 1977, the Molls founded "Labs," a company exclusively dedicated to administering diagnostic tests. The idea proved successful, and it soon began expanding into other neighborhoods and broadening the scope of services, investing in the first CT Scan, closed MRI, and clinical analysis. By the late 1980s, Labs opened the first big hub with a "one-stop-shop" concept, where patients could have all their diagnostic tests performed in the same building. It replicated the concept across the city.

Meanwhile in the 1980s, public hospitals in Rio de Janeiro were underfunded and were struggling. They experienced a drop in quality. Private hospitals began to fill the vacuum, but these were mostly clinics and small hospitals with 60 or 70 beds, often focused on elective procedures and without large emergency rooms. By the 1990s, Dr. Jorge Moll realized that although his diagnostic lab business was doing very well, the barriers for entry into the market for this segment were declining. It had become very easy to secure land and get financing from GE or Siemens for equipment. Aware that competition was rising, Dr. Jorge Moll thought bigger. He knew that with an underserviced hospital segment in Rio de Janeiro, the city was ripe with opportunity. From the beginning, he envisioned a network of hospitals with large emergency rooms.

"His partners thought he was crazy because nobody had this concept in Brazil," explains Paulo Moll, one of the Moll sons and the Executive Vice President of the company. "His partners thought that big emergency rooms would be flooded with very poor people who would not have insurance and could not pay, but Dr. Jorge Moll thought that if he could build enough scale and generate sufficient volumes, he could lower prices, attract corporate clients, and uninsured patients could be managed." While Dr. Jorge Moll focused on the hospitals, his son, Pedro Moll took over the labs business until it was sold in 2011. Dr. Jorge Moll took the risk of building three greenfield hospitals in close sequence. Between 1998 and 2001, RDOR opened Barra D'Or, followed by Copa D'Or, renovating an old hotel in Copacabana and transforming it into a modern hospital, and Quinta D'Or. All the hospitals were relatively big, with an average of 200 beds. With a central focus on quality, growth came quickly because there was a large demand for the types of services on offer.

Growth stabilized after the initial period, providing proof the business model, and its own best practices for performance and scale, was working. By 2007, several second-generation members of the Moll family had joined the company and were focused on growth, beginning with its first acquisition outside Rio de Janeiro, in Pernambuco State in the Northeast. In 2010, RDOR purchased São Luiz, which gave it a high-end brand with a very good name recognition and entry into the São Paulo market. The merger led to the combined name of "Rede D'Or São Luiz." In the seven years that followed, RDOR grew from 500 beds to 5,200 beds.

The demand for sophisticated hospital services, using advanced technology such as robotics, continues to grow.

THE BUSINESS MODEL: AN EFFECTIVE INTEGRATED NETWORK PROVIDER

THE RIGHT MIX FOR SUSTAINABLE OPERATIONS

While there is universal healthcare in Brazil, the public sector does not have the financial resources to provide high-quality services for a population of nearly 210 million people. There are about 6,700 hospitals in Brazil, of which the private sector manages about 4,300. However, there is a persistent deficit in hospital beds nationwide, and care is often of poor quality. With a rapidly aging population and rising non-communicable diseases, the demand for hospital services continues to grow.

The main challenge is that the industry is highly fragmented, with average hospital size of only about 60 beds. The lack of scale makes it difficult to grow sustainably and limits investment opportunities. Hospitals with less than 100 beds struggle to dilute their fixed operational costs and to offer the necessary range of services. Since 2015, 500 hospitals have closed due to a combination of a difficult macro-economic environment, lack of scale, lack of depth of professional management, succession issues, and difficulty accessing capital. Several hospitals acquired by RDOR faced business challenges, and some were in bankruptcy. If RDOR had not acquired these struggling hospitals, they would have closed and exacerbated the bed shortage.

Growth Strategy

Otavio de Garcia Lazcano, the Chief Financial Officer explains, "In Brazil, it is inefficient to have small general hospitals. It does not pay you back and you are better off having a network of large scale hospitals, with some niche capabilities, that are extremely well located in large urban centers that are responsible for a large percentage of GDP, with a population of greater than 500,000, where there is lack of high-quality hospitals, and where insurance companies have dominant market share positions."

Reflecting on the most sustainable operational configuration, Rodrigo Gavina, RDORs Chief Operating Officer, believes that in an ideal world, "the perfect hospital in Brazil should have capacity of between 150 and 250 beds, which can handle 1,000 surgeries per month and where 25 to 30 percent of beds are for ICU patients." This varies by region and depends on several other factors, including the size of the market in a geographic location, insurance penetration, and occupancy rates.

Since 2010, RDOR has been in an expansion phase. As of October 2017, it had acquired a total of 27 hospitals, two of which are under management, and it introduced 10 greenfield hospitals. Its hospitals have high and medium complexity capabilities. In addition, it has 35 oncology clinics. In total, RDOR manages about 5,200 hospital beds in 4 states that represent 50 percent of the Brazilian GDP.

"In Brazil, it is inefficient to have small general hospitals. It does not pay you back and you are better off having a network of large scale hospitals."

Otavio de Garcia Lazcano
CFO

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RDOR has a multi-year investment plan that strongly aligns with the market opportunity and is driven by shifting demographics and the local disease profile. By 2021, RDOR plans to add 20 more hospitals, with an average size of 150 beds, for a total of about 8,800 beds, of which 3,300 will be new beds. It plans to do this through a blend of greenfield investments and mergers and acquisitions. From a financial perspective, it is easier for RDOR to acquire a hospital, which takes an average of two years to complete negotiations. The hospital remains open while upgrades are taking place. Whereas to open a greenfield, which takes an average of three years to build and three years ramp up. Thus, mergers and acquisitions are preferred since it tends to generate higher and faster values and it can extract synergies within three to four months.

When RDOR acquires a hospital, it turns the operation around and increases productivity to make it very efficient. It ensures that the hospital has the right mix of clinical services in response to the local demand, it increases the medical staff, introduces new technology, increases complexity, and converts the administrative office space to hospital rooms. By adding more beds, it gains greater operational leverage. This is discussed further below.

THE DRIVERS BEHIND THE COMPANY: RDOR'S MANAGEMENT AND PHILOSOPHY

Management

Thirty-eight years after the founding of Labs, Dr. Jorge Moll is now the chairman of the board. His four sons and one daughter are active in the D'Or companies and the family retains control through the board. Pedro and André are active board members and André, a radiologist, is chairman of the board of the oncology business, leading the fast growth of that business line. Their sister, Dr. Renata Moll, followed in her father's footsteps and is an echo-cardiologist. Paulo Moll is the Executive Vice President and works to ensure that the values of quality, efficiency, and focus on patients that the Moll family has developed remain in the DNA of an expansive and growing healthcare business.

Mr. Gomes, former CEO of Brazil's largest insurance carrier, has a very deep understanding of the entire healthcare system.

In 2014, the board selected Mr. Heráclito Gomes as a successor CEO. Dr. Jorge Moll moved to the board. Mr. Gomes is a career CEO who previously headed Brazil's largest insurance carrier and who has a deep understanding of the functioning of the Brazilian health system, especially commercial management and the distribution system. He has relationships with the largest insurance payers. His experience brings unparalleled insights about opportunities and challenges that RDOR is facing.

RDOR then expanded management bandwidth and reinforced the C-level to cope with accelerated growth. RDOR created management clusters for general management, clinical management, and financial management, which are led by experienced professionals. This has positioned the company for its consolidation phase. Its corporate management team brings depth and breadth of experience that underpins future growth and long-term sustainability of the company.

Philosophy

RDORs philosophy revolves around three pillars: (1) quality care that is based on global quality standards, (2) patient experience that is aimed at achieving client satisfaction, and (3) financial performance that allows for sustained investments. These three pillars have equal value and drive all management decisions. All hospitals and staff are held accountable through Key Performance Indicators (KPIs) for delivering on these goals.

1. Quality Medical Care

RDOR believes that quality is essential to being the market leader. Paulo Moll explains, "The most important focus for us is on attracting the best people, be that management, physicians, and nurses—this is an obsession for our company. In every hospital that we have acquired, we increase the number of beds, doctors and nurses per bed and we expanded coverage for services that used to be on-call, especially for night shifts, to provide coverage 24 hours a day, 7 days a week. In addition, we make huge investments in costly medical technology—it's part of our company history—and we invest much more than our competitors. More people and technology are very expensive, but if you are correctly diagnosing and treating the patients, that is good for the long-term management of patients and for the RDOR brand because the quality of care attracts more patients and drives more volumes. We are able to dilute these increased expenses in staffing salaries and technology with the savings generated from cost controls, the consolidated corporate shared services, and discounted procurement."

The 37 hospitals are managed with a focus on quality standards, patient satisfaction, and financial efficiency. Common KPIs align the goals of the entire network and enhance performance.

There is coordination and discussion of best practices, with active clinical review, and some areas are harmonized across the network. For instance, there are about 25 protocols, including Sepsis prevention in the ICU, chest pain management in the ER, and deep vein thrombosis medication compliance, that are uniform across the network. New protocols can be introduced following a vetting process from a medical committee.

"In every hospital that we have acquired, we increase the number of doctors and nurses to improve quality."
Paulo Moll

There are some areas where there are variations in practices. First, delivery of care may reflect local, cultural differences. This is permitted so long as RDOR's corporate policies and values are respected. Secondly, since the hospitals operate in different clinical segments there may be some adaptations, so long as the same goals and purpose are maintained. Thirdly, thirty of its hospitals are accredited by five different international and Brazilian organizations which have slightly different standards and requirements.

Notwithstanding the unique areas of independence, cohesion is formed inside each hospital. The corporate area trains directors who, in turn, explain to physicians what is expected of them and what doctors need to deliver. The care that is delivered inside the hospitals is very well organized. The processes are clear and are well communicated through to the point where care is delivered. They are aligned with good processes and infrastructure, and outcomes are measured.

Results are centrally monitored and the hospital's management team is evaluated and held accountable against the KPIs, which measures the infection rate, the complication rate, and the mortality rate, among others. The hospital management team is responsible for maintaining quality standards above minimum targets. Incentive pay is tied to performance.

Filling the Void: The Oncology Network

To continue to expand its portfolio of quality medical service offerings, seven years ago, RDOR began filling a void in oncology care. Cancer is the second leading cause of death in Brazil, after cardiovascular disease. In 2016, there were 600,000 cases of cancer and the numbers are projected to grow steadily. Since the 1970s, there have been significant gaps in the provision of oncological treatment across Brazil due to lack of financial resources to adequately address the disease. Thus, cancer treatment was largely only available for the wealthy.

Anticipating a growing wave, in 2010, RDOR began investing in this segment by acquiring several practices. The oncology business is held separately, through Onco D'Or and it consolidates 35 outpatient clinics in seven states. RDOR owns 86 percent of the shares of these clinics. To compliment the clinics, RDOR is currently building three specialty hospitals, "Centers of Excellence," that will focus on cancer treatment. All three hospitals will be state-of-the-art facilities for the treatment of the disease. It will bring together, in one location, all aspects necessary for the prevention, diagnosis, and treatment of cancer.

The hospitals in Rio and Brasilia will be general hospitals but with a strong focus on oncology. These will have clinics embedded in the hospital itself with ambulatory treatment stations but with access to the hospital medical infrastructure to provide complete cancer care. The hospital in São Paulo is more ambitious and will be the flagship. Currently under construction, it will be exclusively dedicated to cancer treatment. It will have the most sophisticated radiotherapy service, and will be the first hospital in Brazil to be outfitted with Cyberknife and Tomo Therapy, two of the most modern cancer treatment equipment currently available in the world.

Correctly diagnosing and treating patients, with state of the art technology is necessary for the long-term management of patients. It also drives more volumes.

Through its network, Onco D'Or seeks to expand access to cancer treatment to the masses. Two months ago, it hired Dr. Paulo Hoff, the leading cancer specialist in Brazil, as the CEO of Onco D'Or. Dr. Hoff was attracted to RDOR because he was interested in reaching more Brazilians. Through the network, he can now offer the same standards of oncology care offered to wealthy Brazilians to millions more, including lower income workers, who now have private health insurance. He was also interested in the opportunities to conduct cancer research through the Institute for Research and Education D'Or (IDOR) in São Paulo.

The near-term focus of Dr. Hoff's work is to align the entire network with the same protocols of quality and treatment. Dr. Hoff explains, "We want patients to have quality care that is similar in all the units and through the protocols we can bring high-quality treatment to centers located in smaller cities." In addition, telemedicine will be leveraged across the country and the unified medical records system that is part of the business intelligence platform will be tweaked and will serve as a key tool to roll out the harmonization of the units.

Dr. Paulo Hoff expects that the quality of treatment will also continue to be elevated through research and participation in clinical trials that will be channeled through IDOR in São Paulo. He explains, "Having a research institute with a strong focus in clinical research has always been demonstrated to improve the quality of care that is given to the patient. Even those patients that are not participating in clinical research benefit from a sophisticated group of nurses, a sophisticated electronic medical record, and participating physicians who will have the same standards of care in documentation."

The quality of treatment will continue to be elevated through research and participation in clinical trials that will be channeled through IDOR in São Paulo.

The job of the hospital management team is to deliver patient care and satisfaction.

2. Patient Experience

A positive patient experience at an RDOR facility is a key element of success and is important to the company's identity and brand. The principal job of the management team of each hospital, the Regional Executive Director, the Hospital General Director, the Hospital Medical Director, and the Hospital Operating Director, is to align all the operations around patient care and satisfaction.

RDOR takes the traditional back-office bureaucracy, which in many hospitals tends to occupy a significant amount of management time, and shifts it to the corporate shared services center. This frees up management time to focus on delivering the best quality of care, which is achieved by walking the floors of the hospital and attracting the best physicians and nurses. This feature makes it attractive to potential management recruits and gives the company a competitive advantage.

RDOR designs several features from the patient's perspective, ranging from synergistic architectural designs to reinventing work flows. For instance, it built hybrid surgery rooms, which are operating rooms that are connected to MRI equipment. This is rare in Brazil but it helps to make surgical procedures safer. Similarly, it decided to take a different approach to reduce emergency room wait times, which are typically long in Brazil, through its "Smart Track" system.

Upon being admitted to the emergency room, the patient is immediately taken to a small room to be seen by a physician. The longest wait time there is 20 minutes. The physician will do a consultation, examine the patient, order diagnostic tests, and prescribe any medication. After this initial evaluation concludes, the patient can either be put on bed rest with observation, or can wait in a secondary reception while waiting for the test results. Once the diagnostic tests are available, a second doctor explains the test results and determines whether hospitalization is necessary or whether the patient can be seen at an outpatient facility. Medication is prescribed if necessary and the patient is discharged.

Patient surveys help management gauge how it is performing and identifies areas that are working well and others that need reinforcement.

The results of its patient-centric efforts are assessed by the patients themselves. RDOR conducts patient surveys and the response rate is about 15 percent. This helps management gauge how it is performing. In 2016, nearly 60,000 patients (95 percent of respondents) replied that they had received an "excellent" level of care. Further, on an annual basis, it conducts an anonymous survey of employees to evaluate what areas of patient safety can be improved. It is an important tool to assess where staff are overloaded by work or where staff is not comfortable reporting the work of another peer. These tools, and others, help management to gain additional insights into areas that are working well and other areas that need reinforcement. Because of this focus on patients, it has created a top-quality hospital network and brand that is in demand—patients want to go to their facilities and insurers want to include them in their networks.

3. *Financial Performance*

RDOR's strong financial performance can be attributed to a combination of securing a reliable source of revenues, largely derived from private insurance, balanced against effective cost management.

Working Efficiently with Private Insurance

Private health insurance coverage has been growing steadily in Brazil. As of June 2017, 47 million, people or about 25 percent of the population, had private health insurance. In the next decade, it is possible that another 20 million people will be covered.

Growth of the health insurance sector and that of RDOR has been intertwined. As both nascent industries were growing at the turn of the decade, a beneficial relationship emerged between the two. RDOR was building new hospitals and outfitting them with the latest technology, so it needed volumes. Similarly, insurance companies were eager to include new hospitals in their benefits plans. Insurers knew that to attract new members RDOR needed to be included in their network because patients wanted to go to their facilities. In addition, by about 2002, the fragmented insurance market was also undergoing a consolidation. As insurance was growing and expanding into regions, insurers saw value in partnering with RDOR, the largest hospital network in the country, and together they expanded into the frontier regions of Brazil.

These synergies allowed both to grow and expand healthcare access further down the social-economic pyramid. Since 2003, about 47 million low- and very low-income Brazilians have entered the middle class. Paulo Moll explains, "With the prices that RDOR was offering, insurance companies could expand the scope of its offering to corporate clients, providing access to very good hospitals not only for high income categories, which until

Insurance helped to expand access to people who never had health coverage.

recently had been the only segment of society to have access to high-quality hospital care. The partnership helped to expand access to the growing middle class, including to nurses, industrial workers, and administrative staff who never previously had health coverage."

Today, as the insurance market is maturing, the partnership has evolved to focus on reducing healthcare costs. Medical costs are continually rising, faster than the rate of inflation, particularly for medical supplies, and insurers are pushing to reduce prices. RDOR's size, reputation, and very good working relationship with insurance companies positioned RDOR to tackle these issues with carriers.

While most of RDOR's business is still fee-for-service, this is very expensive to administer as it requires a large billing staff. In response, five years ago, RDOR and some key insurance carriers introduced in some hospitals the use of bundled payments—at a fixed price per day—for certain surgeries such as orthopedic, bariatric, and spinal surgeries, as well as a portion of ICU stays, excluding drugs and certain procedures. At its Norte D'Or hospital, RDOR bundled so many services that it reduced the number of billing staff by about 50 percent.

RDOR is piloting an intermediate step, with a "Partially Bundled Hospital Day" that includes a fixed price for high-frequency-use supplies that are bundled in the daily charge. Through yet another initiative, RDOR is working to offer a lower price per ticket. This is possible when RDOR seeks to increase the volume of a new insurer population by increasing eligibility at a certain hospital or service.

A key challenge that many providers are encountering is that the amount that patients are charged is insufficient to pay for operational costs, thus, RDOR is working on introducing a gradual shift to change the model. RDOR has negotiated more accurate prices for the services it is selling, while passing on the savings it gets on supplies through volume discounts to the insurance company. This allows providers to be paid a fairer price, while contributing to a drop the overall cost of healthcare.

Finally, RDOR is working together with payors to improve receivables, particularly for billing disputes. Since 2013, RDOR has successfully negotiated automatic invoicing with carriers, which reduced billing disputes by applying a fixed dispute rate. Recently, RDOR's biggest insurers have agreed to pay the invoices first and then sort out the disputed portion. In exchange, RDOR provides those payors with a discount over regular prices. Thus, RDOR has shortened the number of days that receivables are outstanding, which improves cash flow and lowers costs.

With time, insurance companies and providers will continue to work more closely to better coordinate care and thereby continue to lower costs and improve patient outcomes. Through these initiatives, RDOR has slowed the pace of rising costs for the overall healthcare system for insurers and for RDOR. RDOR can do this because of its robust business intelligence platform. Data empowers RDOR with information but interestingly, it has found that self-insured organizations lack the data to make decisions and are consequently afraid to negotiate. These organizations are focused on getting discounts but this does not address the problems. In terms of roll out, RDOR has begun with the largest players and intends to expand to another 60 carriers over the next few years.

Cost Management Strategies

Business Intelligence

The key to making strategic business decisions is having the right data available at the right time. Since 2002, RDOR has had a robust business intelligence tool that provides the "hospital at your fingertips" on mobile devices. The "Mobile Analytics" application, was developed in-house by one of RDOR's local IT staff who took the initiative to create the platform on his own and then showed it to management. Today, this IT staffer is a shareholder. The platform provides thousands of data points to managers in real time. It captures all the company's systems through a mobile phone—and it is fast.

Business Intelligence has helped RDOR stay ahead of the market by highlighting the exact areas where RDOR need to focus.

It contains financial and operational information for each hospital and the entire network. For financial aspects, a manager can see the company budget, revenue history, and hospital costs. The operational side of the system allows management to see hospital occupancy and outpatient numbers in real time. It can analyze patient volume, tickets, permanence, age range, service discontinuation and patient fidelity (tracking of new and old patients), number of daily surgeries performed, and the schedule for the day for all the patients and headcount. The system aids management in forecasting daily labor requirements to ensure it has enough staff in response to anticipated patient demand, for instance for peak entry times and surgical replacement intervals.

Mr. Paulo Moll explains further, "Business intelligence has been a very strong area in our company and has given us a competitive advantage. The platform provides a wealth of information, which has helped us stay ahead of the market by highlighting the exact areas where we need to focus. For example, the platform allowed RDOR to analyze the epidemiological data of the population and provided insights into the scale of the cardiovascular and cancer epidemic that was coming. It helped us to concentrate our time and resources over the last three to five years to position our units properly, and now we are the leader in the industry. It also provided data we needed to negotiate with the payers and helps to identify what areas need further investment.

Occupancy

Another key tactic to managing costs is strategic management of occupancy-related costs. In 2016, RDOR's hospitals ran at an average of 80 percent occupancy. It leverages its business intelligence data to provide operational insights that include current occupancy and historical data patterns. Each day, the Medical Director and a multi-disciplinary team analyzes expected patient volumes for the following shift, as well as for the following day, to forecast usage.

If occupancy is projected to be below a certain threshold (i.e., less than 80 percent) RDOR adjusts the health professional staffing plan requirements accordingly. Similarly, it can manage the distribution of patients per unit per day, as required. The staffing plan is coordinated within the confines of the strict Brazilian labor law and ultimately management, through multi-disciplinary oversight, can align staff assignments as necessary.

Similarly, when opening hospitals, RDOR applies a phased-in approach to operationalizing areas and beds depending on the demand. For instance, if it is opening a hospital with 300 beds, it will open beds gradually as there is demand. If beds fall below occupancy, it adjusts operations until volumes are sustained.

Efficiencies of Scale

In 2014, RDOR centralized all the back-office functions of procurement, human resources, finance, information technology, legal, medical, commercial, and support operations, into one corporate shared services area. While it was challenging to implement, it has made the company very lean. Today, when RDOR acquires a new hospital, it can generate synergies quickly. Administrative staff is reduced by about 50 percent and the best staff is integrated into the corporate shared services areas.

The scale of 37 hospitals brings bargaining strength in procurement and allows RDOR to secure discounted prices when purchasing medical equipment and supplies. Acquired hospitals have immediate access to its strong purchasing power for medicines and materials.

The average Selling, General and Administrative (SG&A) costs of the hospitals that RDOR acquired were more than 10 percent. Once efficiencies are captured, its SG&A Costs are reduced to about 2.5 percent. The savings RDOR generates through its preferred pricing agreements with suppliers yields 25 percent in annual savings. RDOR estimates that it saves more than R$1 billion ($290 million) a year because of its size and efficiencies.

Through efficiencies of scale, acquired hospitals lowered SG&A costs from about 10 percent to about 2.5 percent.

Revenues

In 2016, RDOR had net revenues of R$7.9 billion ($2.3 billion). 95 percent of revenues were derived from private health insurers, through corporates, self-insured entities, medical cooperatives, and HMOs. Payors are diversified and the largest payor contributes 20 percent to revenues. The remaining 5 percent of revenues were from out-of-pocket payors. Between 2013 and June 2017, RDOR's net revenues grew by 108 percent, as operating beds increased to 5,200 and its occupancy rate averaged 80 percent. Its EBITDA margin was 23.4 percent in 2016. Per Fitch Ratings, its operating margin is among the highest of its peers globally.

Sustainability

Notwithstanding expansion, RDOR has been able to increase its profitability because of the increase in beds and an increase in complex cases, which have higher average revenues. Since 2014, it has mastered controlling expenses through its shared services center, which has allowed it to reduce labor costs, and its scale has provided greater bargaining power, which has reduced the cost of buying medical supplies. These factors have allowed acquired companies to be integrated at a faster pace.

Over time, the company has become more sophisticated. It has improved its cash generation and capital structure profile. Its strong balance sheet has positioned the company to further consolidate the fragmented market. It is company policy to maintain a large cash balance to provide extra cushion to meet debt servicing and to allow a rapid response to opportunistic acquisitions targets as it may arise.

IDOR offers students access to train on state-of-the-art medical technology in diagnostics, imagining and oncology. Others cannot because new technology is cost prohibitive.

INNOVATIONS: THE INSTITUTE FOR RESEARCH AND EDUCATION D'OR (IDOR)

In the mid-2000s, Dr. Jorge Moll visited his son, Dr. Jorge Neto and his daughter-in-law, Dr. Fernanda Tovar-Moll, who were pursuing post graduate neuroscience research work at the National Institute of Health in the United States. Dr. Jorge Moll convinced them to return to Brazil and in 2010, the family founded the Institute for Research and Education D'Or (IDOR) with a mission to promote scientific and technological progress in healthcare. Today, IDOR consolidates research, education, and innovation across the group. IDOR began with neuroscience research and expanded to areas that have a greater link to the hospitals such as intensive care medicine, internal medicine, pediatrics, imaging and oncology.

There is symbiotic relationship between RDOR and IDOR. IDOR's work led to the development of a protocol for Sepsis that has reduced the number of life threatening infections; it developed an "ICU checklist," which improves data collection and organizes quality of care indicators and epidemiological characteristics for ICU patients, and it has encouraged the use of residents in ICUs. These have continued to improve the quality of healthcare delivery, not only in RDORs own hospitals, but also outside its network. Further, in 2018, IDOR will open a branch in São Paulo that will be dedicated to cancer research and will conduct clinical research in which RDOR patients can choose to participate. A tumor bank with a pathology lab will be established with the hope of contributing to the development of several new technologies to treat cancer.

In education, IDOR is helping expand the pool of trained medical professionals in Brazil through management of a very popular residency and internship program. In the last cycle, it received over 1,000 applications for 200 seats. Dr. Fernanda Tovar-Moll, Vice President of IDOR explains, "The program is in high demand in part because we have earned a reputation for our research work. For instance, we gained international attention, by discovering the link between Zika virus and microcephaly, but we also offer students access to train on state-of-the-art medical technology in diagnostics, imagining and oncology. Unfortunately, other tertiary institutions or public hospitals cannot offer this kind of training because new technology is cost prohibitive and Brazil is in a recession." The retention rate for students who participate in these programs is over 80 percent.

For Dr. Paulo Moll, IDOR provides an important competitive advantage on two levels. "First, IDOR is an invaluable tool to recruit the best physicians in the country because doctors like our hospitals and they are interested in developing research and we can provide that. Second, we are in the process of opening a fully accredited School of Medicine, which will open in 2019. All our efforts in education will ensure that we have a reliable supply of well-trained nurses and physicians. RDOR is planning to grow from 6,000 beds to 9,000 beds in five years. Not having IDOR would jeopardize the growth of the company."

As IDOR looks to the future, like his father, Dr. Jorge Neto has his eye on healthcare innovation and is creating an IDOR spin off. Dr. Neto explains, "We are building a separate innovation hub. We are participating in a venture capital fund with Silicon Valley innovator, InCube, a company well recognized for its medical innovation in therapeutic areas, medical devices, and drug delivery. We are also facilitating knowledge exchange between our researchers and leaders in research and innovation at the Weizman Institute of Science, Swissnex Brazil, and Sutter Health, a network of hospitals in California. We believe that we need to bring innovation to be sustainable."

IFC shared information and acted as a sounding board to exchange and brainstorm ideas.

THE ROLE OF IFC

Between 2000 and 2003, after the first three hospitals opened, RDOR was profitable but still struggled with cash flow, and it did not have a strong capital structure to support the ramp up of the hospitals.

Mr. Paulo Moll elaborates, "In the beginning it was very hard, as we were a small company and it was very difficult to get long-term credit. My father took a huge risk, betting everything he had into the hospitals and even mortgaged the family apartment. He put everything he had into supporting the hospitals. Between 2000 and 2003, the longest-term capital available was up to five years, at a time when devaluations on U.S. denominated loans were significant, and at an interest rate of 40 percent. My father had to take it because it was needed to pay the bills. It was not until 2009 that the mortgage on the apartment was paid off."

After the first three hospitals ramped up, the company was very profitable. With a proven business model, good performance, and scale, RDOR started to use the platform for expansion and began to acquire hospitals in the State of Rio de Janeiro. Then, RDOR expanded into the frontier regions of Recife in Pernambuco State, a less developed region in the Northeast.

In 2009, RDOR initiated discussions with IFC. The company was keen on entering the São Paulo market and IFC was very supportive of providing long-term capital with a tenor of about 10 years, which was not available from Brazilian banks or the local capital market. Mr. Paulo Moll explains, "This was extremely helpful to the company to support the growth investments. Having a business association with IFC, brings clout to our company and certainly opens doors, particularly when in discussions with other banks and investors."

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>
> **Paulo Moll**

IFC was interested in working with RDOR for several reasons. IFC's assessments found that RDOR was one of the hospital groups in Brazil that was delivering high quality services, was constantly introducing efficiencies, had the potential to scale up, and could consolidate the sector. Further, RDOR had already started to reach lower-income people and by investing in the less-developed areas of Brazil, such as in Pernambuco. IFC also believes that the innovative clinical, management and financial approaches adopted by RDOR can provide valuable insights to other companies operating in other emerging markets.

In the early days of private health insurance, quality private hospitals were exclusively serving the top tiers of the Brazilian society, while the rest of the population was served through the public hospital system and a few private providers. With the help of employers who were offering health insurance to all their employees, RDOR started to go further downstream, catering to middle- and lower-income workers, many of whom had only completed high school or had technical degrees. This helped to alleviate crowding in public and charitable hospitals, and provided a demonstration effect about the benefits of gaining scale and reducing costs without sacrificing quality of care.

In addition to providing capital support, IFC and RDOR worked as partners. IFC shared information and acted as a sounding board to exchange and brainstorm ideas. RDOR appreciated IFC's expertise and experience in different countries. IFC organized a knowledge exchange trip for RDOR with IFC clients in India to learn about how Indian providers deal with very low prices, a large amount of out-of-pocket payments, very large volumes, and the efficiencies necessary to work under those conditions.

By increasing complexity, expanding into the regions, and innovating, RDOR is saving more and more lives every day.

CONCLUSION

Forty-one years ago, Dr. Jorge Moll and his family embarked on a journey that led RDOR to create the largest hospital network in Brazil and to become the leader in the industry. The vision to be a benchmark in hospital management and medical services—based on the highest technical standards—is a reality. RDOR has continued to elevate the level of care that is available in Brazil, and through its partnerships with insurance carriers, it is expanding access to quality care for millions of Brazilians. By increasing complexity, expanding into the regions, and innovating, RDOR is saving more and more lives every day.

RDOR has continued to elevate the level of care that is available in Brazil and is expanding access to quality care for millions of Brazilians.

STAY CONNECTED

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