

CASE STUDY

Integrated Diagnostics Holdings (IDH)



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Introduction

The COVID-19 pandemic has raised awareness around the world of the value of diagnostic tests. The presence of viable, accessible, cost-efficient testing laboratories can make all the difference to the quality and breadth of healthcare in a region. In many countries, a great deal of testing is conducted by government-operated laboratories, but they may suffer from underinvestment that limits their reach and effectiveness. Privately-owned testing laboratories, which tend to be more entrepreneurial, can provide an additional route for needed testing. They also can help set higher standards for quality. This is because they are more likely to keep up with new technologies and practices and they may have more incentives to continually raise the quality of their services because of the competition they face. By expanding availability of reliable diagnostic services, private laboratories can be a strong partner for governments seeking to meet public health goals, especially in times of health crises.

Integrated Diagnostics Holdings (IDH), a Cairo-based network of testing laboratories that operates in Egypt, Jordan, Nigeria, and Sudan, has demonstrated how a private-sector testing laboratory can contribute to the overall health and well-being of a region. Founded in 1979 by Moamena Kamel, MD, a professor of immunology with a PhD in immunology from Cairo University, IDH is now run by her daughter, Dr. Hend El Sherbini. Dr. El Sherbini holds a master's degree in Public Health from Emory University, a PhD in immunology from Cairo University, where she also teaches, and an executive MBA from the London Business School. Before becoming CEO, she held a research position in molecular biology at the U.S. Centers for Disease Control and Prevention.

Although IDH is a family-founded business, it is a publicly held company. Dr. El Sherbini and her mother own 25 percent of the stock. The rest is traded on the London Stock Exchange, where IDH is one of a very few Egyptian companies listed. When its initial public offering in 2015 produced a market capitalization of \$668 million, [Forbes magazine](#) speculated that IDH might be the only woman-led Middle East company to ever raise money that way. "There are not many companies like IDH," Dr. El Sherbini told the magazine. "Doctors run most of the healthcare companies, and they don't have management backgrounds."

IDH is a leading proponent of global radiology and diagnostic best practice. The company has grown, in part through mergers and acquisitions, to encompass more than 500 branches in the four countries where it operates. It offered more than 27 million diagnostic tests in its fiscal year 2020, in 2,000 different forms, ranging from basic blood glucose tests for diabetes to advanced molecular testing for genetic disorders. It also offers radiology services in Egypt and Nigeria and house calls for those who cannot get to a lab. IDH is very disciplined in maintaining affordable prices, even when its own costs rise, because of its customer base. Walk-in patients, who typically lack health insurance,



represent about 30 percent of the testing population. Other tests are generally subsidized by IDH's preferred arrangements with institutional and corporate clients, but even here, group discounts are common.

As IDH's activities underscore, diagnostic tests are key to managing health crises. The company played a major role in fighting the COVID-19 pandemic in Jordan and Egypt, where it offers tests for detecting coronavirus variants. Broad accessibility of testing is a core aspect of IDH's business purpose.

The company's overall compound annual revenue growth rate was 21 percent between 2015 and 2020, and it is headed for further expansion, backed by the International Finance Corporation's financial and advisory services. IFC has provided training to IDH to strengthen healthcare quality, and it organized a \$45 million financing package in 2021, designed to help the company expand its geographic footprint and service offerings. In addition, IDH has joined the Ethical Principles in Health Care (EpiHC), an initiative of IFC and the World Bank that supports responsible behavior in healthcare.

During the next few years, biomedical advances are expected to accelerate, affecting the kinds of diagnostics available and the ability to prescribe and administer early treatments of many diseases. The capabilities of diagnostic laboratories, in both the medical and managerial spheres, will also be tested, especially in emerging economies. IDH is an example of a company looking ahead to those challenges and preparing for them now.

We Interviewed Two Company Leaders and Two IFC Investment Officers



Dr. Hend El Sherbini
Chief Executive Officer, IDH



Mr. Omar Bedewy
Chief Financial Officer and Vice President of Finance and Strategy, IDH



Raza Mirza
IFC Sector Lead for Health and Education for the Middle East and North Africa region



Yana Gorbatenko
Global Lead for Healthcare Quality Advisory, IFC



Lessons from IDH's Story



Build scale by prioritizing quality care



Develop a “hub, spoke, and spike” business model



Recognize the value of women-led organizations



Embed resilience in everyday work



IDH at a Glance

Years in Business	42
Revenues	US\$169 million in 2020, representing 19 percent growth over 2019.
Business Model	<p>Diagnostic tests provided by IDH laboratories involve immunology, microbiology, hematology, endocrinology, clinical chemistry, molecular biology, cytogenetics, and histopathology. Radiology is another service that IDH ventured into in 2018 to offer patients a one-stop-shop solution under the same roof. IDH's business model divides customers into two groups. Walk-in ("self-payer") clients pay out of pocket for their test results, receiving them in person and bringing them to their physicians. Contract clients have costs paid by larger institutions: banks, corporations, unions, syndicates, or insurance companies. Contract clients accounted for 54 percent of IDH's revenues in 2020. IDH offers at-home testing services by sending specialists to collect samples. Its labs often deliver results electronically on the day of the test, sometimes through the company's mobile apps. IDH markets its services directly to a wide range of constituents: individual patients, physicians, insurance companies, and employers.</p>
Brands and Websites	<p>IDH's core brands include Al Mokhtabar, Al Borg, Al Borg Scan (radiology), and Wayak (digital health services) in Egypt; Biolab in Jordan; Echo-Lab (radiology, pathology tests, and clinic services) in Nigeria; and Ultralab and Al Mokhtabar in Sudan. Websites for patients and consumers are specific to the brand. In addition, IDH maintains a global site, idhcorp.com, with investment and general information.</p>
Corporate Governance	<p>IDH is a publicly held company listed on the London Stock Exchange and the Egyptian Exchange. About 25.5 percent of the shares are held by a group owned by Dr. Kamel and Dr. El Sherbini. The remaining shares are held by institutional and retail investors.</p>
Social Activities	<p>IDH commits up to 1 percent of its profits in Egypt to the Moamena Kamel Foundation for Training and Skill Development, which supports community initiatives for economic, social, and healthcare development. These include free healthcare clinics, loans for entrepreneurial women, educational services, and support for Cairo's public-sector Kasr El Aini Hospital. The foundation is separate from IDH, which has no direct role in administering the funds.</p> <p>IDH conducts its own corporate responsibility initiatives, which include providing financial support, supplies, and services to public hospitals, support for natural disaster relief, and free medical tests to underprivileged children. One recent example was IDH's participation in the Egyptian government's 100 Million Healthy Lives campaign, which ran from November 2018 to June 2019. IDH served 409,000 patients and performed approximately 4.4 million tests.</p> <p>This company is the first healthcare company in the Middle East and North Africa region to obtain EDGE certification. This is a recognized global standard for gender and intersectional equity, including pay equity, policies, and practices that ensure equitable career flows and cultural inclusiveness.</p>



Workforce

IDH employs more than 5,200 employees, of whom close to 40 percent are women.

Geographic Footprint

As of November 2021, the IDH network operates in four countries: Egypt (455 branches, about 83 percent of revenues), Jordan (21 branches, about 16 percent), Nigeria (12 branches, about 1 percent) and Sudan (19 branches, less than 1 percent). IDH is the only diagnostics provider in Egypt accredited by the College of American Pathologists (CAP), and one of two such providers in the Middle East and North Africa region. IDH is currently applying for accreditation by the American College of Radiology.

Although its businesses are relatively small outside Egypt, they are growing rapidly. Nigeria's business, for example, grew 38 percent in terms of revenues in 2020, and 20 percent in terms of the number of patients served. IDH expects to expand to about 40 branches in Nigeria by 2027.

Lesson 1: Build Scale by Prioritizing Quality Care

In the four countries where IDH operates—Egypt, Jordan, Nigeria, and Sudan—the demand for medical diagnostics is expected to increase. These countries have growing populations, with an increasing percentage of elderly people. The prevalence of chronic lifestyle diseases, such as diabetes and cardiovascular disease, have increased in Egypt by more than 20 percent since 2011.

Diagnostics play a crucial role in treating these diseases. High-quality tests have been shown to improve care decisions, survival rates, and outcomes. And yet Egypt has only one test laboratory accredited by the College of American Pathologists (CAP). This is the IDH Mega Lab. Its success and that of the other IDH facilities show how much more capacity is needed.

As a growth strategy, IDH promotes quality and breadth of patient care. It has applied for and met international quality standards, aligned with the International Standards Organization and the [College of American Pathologists](#). It has also introduced patient-centric features such as home visits, online test results, and efficient, welcoming test facilities. This approach attracts IDH's patients, many of whom come in as individuals, rather than through an employer or health insurance plan.

As **IDH CEO Hend El Sherbini** puts it in the 2020 annual report: "The patient has to be the center of the focus, and everything else comes after that." In her interview for this case study, she elaborated on her family's background and its influence on the organizational culture:

► **Dr. El Sherbini:** *I come from a family of doctors. My grandfather was a surgeon and a professor of medicine. My grandmothers were a pediatrician and a physician. My father was a surgeon, and dean of the university. A medical organization wasn't new to us.*

When my mother founded the laboratory in 1979, she was a lecturer at Cairo University hospital. She had just come from France, where she had studied immunology and worked on techniques that were completely new, such as HNA typing. Nobody knew about them here in Egypt. She opened the first lab for immunological testing in this country. It was used primarily for transplants. Before then, to receive a kidney transplant, people had to fly to other countries for the diagnostics.

I grew up visiting my mother in the lab. As a young child, I would play there and try to help take samples from the patients. Of course, they wouldn't let me.

The focus on patient safety and health has always been at the heart of IDH, and this emphasis on quality led to IDH's first engagement with the International Finance Corporation (IFC), through IFC's quality advisory services. IDH worked on revamping its reporting system, upgrading standards, and training lab managers and other key people. **Yana Gorbatenko, IFC's global health care quality advisory services lead**, explains:

► **Gorbatenko:** *IDH was one of our early quality advisory clients. We did an initial assessment of healthcare quality practices for their diagnostic business. When we started to work with them, they had just one branch in imaging diagnostics. They knew they would roll out radiology services, and they wanted to be sure of having high standards first.*

One high-risk area in radiology, for example, is intravenous dye contrast. An incorrect concentration of dye can easily lead to patient deaths. We worked on that, and on safety standards for ultrasound units. These are often located close to X-rays, which can be hazardous for pregnant patients.

They also strengthened their incident reporting, not only reporting mistakes that happened but “near-miss” events—mistakes that nearly happened but were averted. By analyzing why that didn’t happen, they can prevent similar incidents from happening in the future.

Growth has meant expanding geographically and also in terms of adjacent services. Al Borg Scan is IDH’s first full-fledged radiology venture. It saw a 70 percent year-on-year rise in 2020 in terms of tests performed. The company is exploring other possibilities, such as in vitro fertilization, dialysis, and neighborhood clinics, always with the idea that expansion enables quality.

The current IDH organizational structure was created with the 2012 merger of Al Mokhtabar and Al Borg lab. The merger made the opportunities for expansion clearer. With the ongoing financing, the newly merged firm could create a virtuous cycle, in which greater scale led to higher levels of service, which in turn would enable further growth. The company raised capital through an initial public offering, which brought it more international financial exposure. **Dr. El Sherbini** describes the circumstances:

► **Dr. El Sherbini:** *It was a bit difficult to have an IPO in Egypt. The country had just had two revolutions, in 2011 and 2013. So we decided to IPO in London. We had to do a lot of work to meet the requirements of the London Stock Exchange. But it happened. And we had a very successful IPO in 2015. Investors in Europe and the U.S. appreciated what we were doing, and we had 11 times oversubscription.*

As IDH expands to new countries, it typically starts with an acquisition. But it then must transport its approach to quality and lay the groundwork for further investment and expansion. One example is the acquisition of Biolab in Jordan. It was already a healthy company, with a strong management team. IDH backed the existing management and

supported Biolab’s further growth. **Omar Bedewy, CFO and VP of Finance and Strategy at IDH,** explains how this happened:

► **Bedewy:** *When I joined in 2016, the Biolab company had already been acquired. Dr. Hend and I visited Jordan and met with the CEO there several times, to put in place a new direction for the company. We redesigned their financial reporting formats, and helped put the company on more of a growth track.*

At the end of the day, we have kept the subsidiaries separate in name, but we have brought them all in under IDH, and they follow our guidance. This has enabled them all to grow, with the same dedication to patient service and quality.

With quality at the heart of IDH’s strategy, Dr. El Sherbini was judicious about financing. In raising capital for expansion, she made it clear that guidance and high standards were a primary factor. **Raza Mirza, IFC’s sector lead for health and education in the region,** tells the story.

► **Mirza:** *When we first talked with Dr. Hend about financing, it was clear that she had a very strong public-policy mindset, especially given her background and her time with the CDC in the U.S. She was not just looking for a financier; she wanted someone who could see the bigger picture as she did. It was not just about top line and better margins. There was a huge, underserved population in Egypt and the rest of the Middle East and North Africa region, and she needed someone with the patience to take this long journey. She recognized that quality assessment was the key challenge, especially for her two businesses: clinical lab services and imaging. She also saw that if she got quality right at the earliest stages, it would be much easier to scale up that level of service rather than looking back and saying, “Where do we need to improve?” She got the blueprint right from the beginning.*

Lesson 2: Develop a “Hub, Spoke, and Spike” Business Model

Building scale in a technological field like diagnostic testing is not simple. The company must be big enough to invest in new advances and ongoing training. At the same time, patients are attracted to local brand names, which are familiar in their neighborhoods.

IDH has navigated this potential contradiction through an asset-light business model called “hub, spoke, and spike.” It combines centralized and decentralized activity in a way that provides the highest level of services with the most efficient use of resources.

Among the hundreds of IDH facilities, there is one fully equipped “hub” located in Cairo. Known as the IDH Mega Lab, it serves as IDH’s diagnostic center, equipped with advanced technology to provide a full suite of diagnostic tests. It requires high levels of capital investment and a carefully trained staff.

The “spokes” are small sample-collection centers where patients visit to be tested. These collection centers process some routine tests on site,

including chemistry, parasitology, and hematology. There are 28 such facilities, with 7 in Egypt and the rest in Jordan.

The rest of the collection centers are “spikes,” facilities that complete some rapid, basic tests and send the rest back to the hub or spokes for analysis. The spike facilities require low capital and can be set up in a few months.

IDH CEO Hend El Sherbini provides further details:

► **Dr. El Sherbini:** *In Egypt, diagnostic services have been very fragmented. The whole healthcare industry is fragmented, with many small practitioners. Being fragmented doesn't allow a practitioner to grow, to provide higher-quality service, or to adopt more advanced technologies. Quality needs a lot of money and commitment.*

Over the years, as our core firm Al Mokhtabar grew, it was always important to emphasize that growth would allow us to raise the quality of our services. In 2012, we merged with the other big

“...we had a very successful IPO in 2015. Investors in Europe and the U.S. appreciated what we were doing, and we had 11 times oversubscription. ”

—Dr. El Sherbini



lab, Al Borg, and created IDH. This was a turning point. It enabled us to have more reach to serve more patients in Egypt, and that gave us the leverage to stay current as technology improved.

We use the hub, spoke, and spike model to increase our reach. Patients don't need to come to the hub. They can visit the many IDH spike facilities, located in their neighborhoods. These collection centers can register patients, get their samples, and conduct routine tests.

This model allows diagnostic service providers to reach as many patients as possible, including patients in remote areas. Patients once had to travel from remote areas in northern or southern

Egypt to the capital to get tested. Now they stay home and we get the results more quickly.

We didn't invent this business model. It is followed by labs around the world. However, we refined it and continually update it. It's a dynamic process. For example, there are always new technologies coming out. So we constantly increase the capacity of the Mega Lab hub, and update our staff training. We also invest in connectivity and IT infrastructure so that our whole network of around 500 labs is connected to the same database. We have consolidated our financials and patient data. And we have increased the number of spikes so we could expand our treatment.

Lesson 3: Recognize the Value of Women-Led Organizations

IDH has only had two chief executives in its 40-year lifespan, and both are women. This is unusual for any large company, and especially in the Middle East. With support from IFC Advisory Services, IDH has become the first healthcare provider in the Middle East and North Africa region to obtain the EDGE gender equality certification, which signifies that a company is committed to reducing gender-related and intersectional gaps in recruitment, retention, and career advancement. To get certified, the company went through an in-depth analysis of its policies and practices, which included a review of human resources data and an employee survey. The gender assessment analysis, which includes an action plan for recommended follow-on steps, was led by an IFC team, with the final review done by an external EDGE certified auditor.

Both **CEO Hend El Sherbini** and **CFO Omar Bedewy** reflected on the difference it makes to work in a women-led organization. They say that

women's leadership enhances the company's culture, but that ultimately the company's success is due to employee commitment and engagement.


▶ **Dr. El Sherbini:** *Most organizations in Egypt, and elsewhere in the world for that matter, are composed of 90-percent male leadership. Being a female-led organization gives us more diversity. I like working with people from different backgrounds, and in a balanced environment.*

My background, as a woman with professional parents and grandparents and both genders working, is unusual. I grew up knowing that, as a female, I had to have a career. I had to be independent and pursue my own dream. And if other families believed that men should work and women should not, that was not the case in my house.

I think women add a lot of stability to any organization. They tend to be more passionate and devoted to what they do. Men are more rapid as decision makers. They tend to be risk takers.

So women decision makers usually provide the balance that any organization needs.

In healthcare, it's very important to be empathetic and compassionate: to feel how patients are dealing with their health issues, and whether they are suffering. Having women in positions of responsibility helps us with this.

 **Bedewy:** *We all feel like partners in this company. We're not just employees. It's not a nine to-five job for us. Dr. Hend educates all the*

people within the organization about the role we play bringing it from point A to point B, C, D, E, F, and so on. She listens a great deal to the employees and their different points of view.

The bottom line is that the success of the company is based on the people. Having a lady CEO contributes to our awareness of this. But it isn't the primary factor. Our spectacular growth is fueled primarily by the passion of the CEO and all the employees together for what we are doing.

Lesson 4: Embed Resilience in Everyday Work

The field of diagnostics is constantly changing, and IDH has a long-established capacity for rapid response to crisis. This turned out to be especially important during the COVID-19 pandemic. IDH's labs remained operational in all countries, but they cut back working hours dramatically during the early months of 2020. Later, with the growing need for diagnostics such as COVID antibody and PCR tests, IDH returned to a full workload and schedule.

As the pandemic continued, IDH ramped up its house-call services so that people could be tested at home, for a slight extra fee. The company ultimately conducted 400,000 PCR tests in Egypt and Jordan in 2021, averaging 4,500 house calls per day. At the same time, it continued its in-depth training of laboratory staff, now conducted through virtual

conferences. With IFC's advisory services conducting much of the training, IDH has shifted partly to face-to-face training, but virtual sessions, which can bring staff from many locations together, are now a permanent part of the training.

There were other challenges in 2020. Riots in Nigeria forced some IDH branches to close. Inflation in the Sudan put dramatic pressure on prices. Nonetheless, the Group remained resilient. By early 2021, the Group was returning to its prepandemic complement of tests. **CFO Omar Bedewy** describes the preexisting culture of rapid response, and its approach to earlier crises, including dilemmas about pricing. **CEO Hend El Sherbini** recounts how this culture enabled IDH's response to the pandemic.

 "Our spectacular growth is fueled primarily by the passion of the CEO and all the employees together for what we are doing."

—Omar Bedewy

► **Bedewy:** Back in 2016, three days after I joined the company, there was a significant devaluation of the Egyptian pound. Our supplies were largely imported, and their costs almost doubled overnight. We renegotiated with our suppliers, but we still took a significant hit.

Despite this increase, Dr. Hend decided not to increase the prices we charged patients more than 12 percent. She felt it was our social responsibility to keep prices affordable.

When the coronavirus hit at the beginning of 2020, we didn't know what would happen next. The world was in chaos. Our management team sat down to put together several scenarios. We didn't panic. We developed plans for each of the scenarios, and we succeeded in meeting each of the challenges. We were also part of the team helping the Egyptian government form its response.

► **Dr. El Sherbini:** The pandemic was sudden and very disrupting for everyone, everywhere. As a diagnostic healthcare company, we had to be proactive—to play a role in society's response and try to help patients.

The pandemic showed us how strong we are as a company. We dealt with a lot of issues: supply chain difficulties in getting our kits and consumables, challenges in serving our patients, and differences in the regulations from each country's Ministry of Health. Also we had our responsibility toward employees and those who work with us: how to keep them safe and help those who got sick. We had to do all this while maintaining our day-to-day business.

In Egypt, it's different because the treatments are not always available. But we were able to do a lot of good work for our patients, our employees, and our society. I always like to thank everyone who worked with me at IDH because they did a fantastic job.

The pandemic has given us a lot of lessons. One of the most important is that we have to be transparent with patients and give them all the information that we have. People panic in times of health crisis. They need to understand what's going on and they need to know how to keep safe. Transparency becomes the first principle for any healthcare company.



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