HEALTHCARE TOUCHES EVERYONE

healthymagination

2010 Annual Report
In the second year of our $6 billion commitment to global health, GE is touching more lives through innovation and strategic partnerships developed in response to two simple questions: What are the biggest challenges facing healthcare consumers and providers, and how can we help?

In this section

Our Mission, Strategy, Method, Progress, Letter to Stakeholders, Rice on Partnering for Health, Dineen on Smart Investments, Advisory Board
GE has the **breadth, depth** and **reach** to take on the world’s toughest challenges.

**Healthymagination** is our six-year, $6 billion strategy for taking on one of the toughest challenges: **global health**.

Our mission: **better health** for **more people** at **lower cost**.
We are **investing** and **innovating** in ways that break through cost, quality and access barriers to health—for individuals and entire health systems. More-effective technology and cost-efficient delivery mean **more lives can be touched**.

Smart spending. Smart saving. It’s that simple.

**Smart Spending** We are making smart investments that make a difference—research and development in technology innovations, capital financing for growth companies and grants.

**Smart Saving** Lowering costs, expanding capacity and improving performance enable healthcare providers to care for more people with existing facilities and to extend access to wider populations.
To achieve our mission, we’ve brought new discipline and accountability to the way we bring products to market.

We apply rigorous methodologies at every step, beginning with uncovering health needs, identifying and developing technologies, and validating our products and services—gathering evidence that each of them can achieve our desired improvements in healthcare cost, quality and access.

**Healthymagination Validation Process**

1. healthymagination council selects innovations
2. evidence submitted
3. experts review submission claims
4. innovation validated

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**Problem**

What Do Customers and Patients Need?

**Solution & Value Creation**

Develop Technology to Address Needs

Generate Evidence of Cost, Quality & Access Benefits

Develop Commercial Product or Service

**Launch**

LAUNCH

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Oxford Analytica Validation
Two years into our six-year commitment, we have 43 validated products and services supporting our mission and have touched more than 234,000,000 lives.
Since then, this commitment has transformed our entire approach to health—from the way we motivate and engage employees and consumers, to the way we collaborate with partners and develop new products. Today, Healthymagination serves as a rallying cry for meaningful innovation to address the world’s biggest health issues. It’s a call for better products at more price points in more regions; for sustainable delivery models; for cutting-edge technologies; and for improved information sharing between patients and providers. In short, it’s a call for better health worldwide.

Significant progress has been made by governments, NGOs and medical professionals to advance health across developed and developing markets. But growing populations continue to struggle with limited resources, a shortage in health workforce and poor infrastructure, while rising chronic disease rates and skyrocketing costs threaten to overwhelm delivery systems. These are formidable challenges, but we are determined to address them with bold ideas, big thinking and continuous innovation.

Grounded in GE Healthcare, GE Water, GE Global Research and GE Capital, we’ve made progress in achieving our Healthymagination vision over the last few years. Since our launch, we have validated 43 Healthymagination products, made $2.2 billion in investment progress against our original $6 billion commitment and touched more than 234 million lives.

There’s still a long road ahead, but we are confident in our ability to deliver.

Today, more than ever, we’re expanding our global footprint to improve access to healthcare in developing markets. We’re using the power of reverse innovation—a new model of product development that empowers local teams to develop technologies in their country, for their country—to address local needs and enable access to technology where it may never have been available before. Examples include the $500 MACi cardiology device for India, which allows physicians to give scans for the cost of a bottle of water as well as the Brivo CT for China, which brings lower-cost CT technology to hospitals that weren’t able to afford it before. Reverse innovation is bringing technology to many people for the first time and opening up new markets for GE along the way.

Limited access to trained medical practitioners remains a challenge across the globe. WHO estimates that approximately 4.2 million additional health workers are
needed to ensure universal access to basic medical care. To address this shortage, we’re designing products with simpler user interfaces that can be operated by midwives, paramedics and other community health workers—such as a low-cost, extremely simple prenatal ultrasound that requires minimal technical training to use, making a life-saving technology available to more women in markets like Africa, Bangladesh and Indonesia.

We realize that impacting health is complex. Collaboration is essential to identifying the best ideas and driving innovation that results in meaningful change. Our healthymagination commitment extends to partnerships with organizations, companies and governments aligned with our vision. For example, in Saudi Arabia we’re partnering with the Ministry of Health to make a significant impact on the country’s health delivery system by advancing technology, training and chronic care management, with a specific emphasis on cardiology and women’s health. Similarly, we’re working with Grameen Bank to improve existing health systems in rural Bangladesh, while supporting a microloan business model that can be replicated in other third-world countries. We’ve also collaborated with The Economist Intelligence Unit to study aging in Japan and have launched a new business strategy to support Japan’s rapidly aging society through smaller medical devices that treat chronic disease in the home.

We are also investing in cutting-edge technology that redefines the boundaries of what’s possible in healthcare. Our recent acquisition of Clarient, a leading player in in-vitro cancer profiling, is just one example. Clarient’s technology, combined with GE’s strength in diagnostic imaging, helps oncologists better predict, at lower cost, which treatment choice is best for an individual patient based on their personal biology. Looking ahead, we plan to launch a significant new healthymagination commitment related to cancer and take personalized treatment to a level only dreamed about a decade ago.

In February 2011, our National Patient Safety Organization was listed as part of the Agency for Healthcare Research and Quality’s Patient Safety Organization program, joining the ranks of leading health organizations around the U.S. to minimize patient risk. Our Performance Solutions business continues to offer reporting, analytics and advisory capabilities to help hospitals drive significant quality and cost improvements—well aligned with the healthymagination vision.

We continue to see progress in the Cincinnati pilot program with partners like P&G, J&J, Anthem, UnitedHealthcare and others, which aims at improving health delivery while containing costs. Our $1 million in-kind commitment to the Beacon Community program will create an electronically connected citywide health-care system focused on bending the cost curve with metrics targeted at diabetes, primary care, childhood asthma and congestive heart failure. We are committed to making Cincinnati a model that we can apply to other GE communities.

We’re also making changes in our own backyard by helping employees better manage their health. Today, more than 100 GE sites have achieved HealthAhead certification, with more than 300 additional planned this year. Nearly 100,000 employees participated in this year’s HealthAhead Day, a global program designed to encourage employees to make healthy choices. As further commitment to our culture of health, we’ve introduced GE Health Choice, a consumer-driven healthcare plan for U.S. employees providing high-quality health benefits and financial protection against catastrophic illness.

We continue to apply innovative thinking to improve consumer health by engaging the public in a global health conversation and by empowering people to make better, more informed health decisions. Our partnership with MedHelp combines the potential of mobile technology with the power of information to help consumers track and analyze critical personal health information, enabling healthier choices. Together we have developed a suite of free mobile applications, such as “I’m Expecting” and “My Diet Diary.”

We firmly believe that solutions for the world’s biggest healthcare challenges are at our fingertips if we apply the right innovative thinking. Proof points like Performance Solution’s work with NHS Lanarkshire and Vscan’s use in the jungles of Malaysia, which you’ll find detailed within this report, are excellent examples of how healthymagination is already making an impact. We remain forward looking, optimistic and committed to building on the growth we’ve seen from the seeds planted two years ago. We’ve been fortunate to have great partners with us along the way, and look forward to more joining us on this journey. We hope you enjoy this report and we welcome your feedback.

Sincerely,

Jeffrey R. Immelt
Chairman of the Board
& Chief Executive Officer, GE

Michael J. Barber
Vice President
healthymagination
May 16, 2011
Perspective

Partnering for Healthier Employees and a Stronger GE

Part of the strength of healthymagination comes from the 300,000 GE employees and their family members who are fully engaged in HealthAhead—a term we use to describe GE’s culture of health. HealthAhead is a partnership between GE and our employees to help each other achieve our best. For employees, it means having access to the tools, resources and encouragement needed to make the best possible choices. For the company, it helps ensure that we can compete in markets around the world.

After one full year of HealthAhead, this partnership has developed real momentum. Many of the details are included in this report. Highlights include the more than 100 sites that were HealthAhead certified as of May 2011, with another 300 expected this year. Additionally, as part of the overall effort to help people make healthy choices, 120 GE sites have become tobacco-free over the past two years. We are committed to helping all campuses become tobacco-free by November 2011. As part of this effort, we estimate that 3,500 GE employees and family members have used company-sponsored programs to assist them in their decision to stop smoking.

HealthAhead also includes a comprehensive approach to healthcare, particularly in the U.S., where we’ve seen rapidly rising costs. As a result, GE introduced a consumer-driven health plan for U.S. salaried employees in 2010. The plan provides high-quality benefits and financial protection while asking employees to share more of the cost and be more active in their healthcare spending and decision making. Early results are encouraging, as we’ve seen fewer emergency room visits for nonemergencies and greater use of generics over brand name drugs. In the first year, we saw a double-digit decrease in healthcare costs for this population of GE employees.

We know that we have more work to do, but are excited about our progress to date. I want to personally thank GE employees for everything they’ve done to get us where we are today. If we are successful, I believe our partnership will result in stronger, healthier individuals and a stronger GE.

“HealthAhead is a partnership between GE and our employees to help each other achieve our best.”

View this story online:
http://www.healthymagination.com/progress/overview/perspective-rice/
Perspective

Committed to Smart Investments with Strong Clinical and Economic Outcomes

At GE Healthcare, we’re at work for a healthier world and through healthymagination we are focused on changing the delivery and economics of healthcare.

There are storm clouds on the healthcare horizon. On the demand side, populations are getting older and chronic diseases are exploding. On the supply side, governments and companies are finding it difficult to pay for current healthcare needs. At GE we think it makes good business sense to focus on this huge social problem. We know that the only way to solve this growing imbalance is with game-changing technologies.

Throughout the world, governments share a vexing challenge: how to deliver quality, cost-effective healthcare to more people. By 2030, the number of people over 65 will increase 140 percent in the developing world and more than 50 percent in developed markets. Chronic diseases, including cancer, heart disease, diabetes and obesity, are equal-opportunity diseases that are very expensive to treat—by 2020, chronic disease will cause 75 percent of deaths worldwide. In China alone, loss of income related to chronic disease will increase eightfold by 2015, to $132 billion.

We do not think healthcare technologies have up until now answered the call to action. In the past, the approach to innovation in the industry has been to take technology to the next level and accept higher costs. GE wants to introduce technologies that can lower costs and improve access and quality at the same time. Simply put, healthymagination is our commitment to develop technologies that bend the cost curve with better clinical and economic value propositions.

In our view, this is a sound business strategy for our investors. In today’s world, investing in healthcare technologies that do not have clear value propositions – better clinical and economic outcomes – is a bad investment decision. We have become much more rigorous in assessing the impact of our investments, using the healthymagination screen. Healthymagination is the lens we use to review new technologies and services to ensure we’re delivering innovation that’s clinically and economically relevant. This discipline will have a positive impact on the ROI of our business by creating line of sight between customer and market needs and product development. Healthymagination will ensure that GE delivers the technologies the new healthcare economy demands.

Healthymagination has us focused on several important areas that will help change healthcare. As diagnostics and therapies shift to the molecular level, GE Healthcare delivers expertise in technologies and solutions to help hospitals run better. Healthymagination products, such as the Brivo CT in China and the Vivid P3 cardiac ultrasound in India, deliver in-country, for-country innovation bridging affordability and access gaps in developing markets. And, recognizing the role digitization plays in transforming healthcare, healthymagination frames our investment in the broadest health IT portfolio in the industry. We have built a portfolio that aligns very well with the new realities of healthcare.

Healthcare is one of the world’s biggest challenges. Healthymagination is a sound business strategy to shape the future of healthcare.

View this story online: http://www.healthymagination.com/progress/overview/perspective-dineen/
Healthymagination’s Advisory Board of experts and leaders from medicine, research, academia, business and government keeps us connected to healthcare challenges around the globe and true to our commitment to meet them.
Healthymagination is about launching more products at more price points than ever before.

In this section
Ron Andrews on Clarient, Vscan, Optima MR430s, Sunspring, Tom Daschle and Dr. Bill Frist on Transformation through Technology, Dr. Charles Sorenson on Information Technology, Jane Chen on Embrace
Most of us are no more than one degree removed from someone who has suffered with cancer. The Human Genome Project gave many of us hope that we would one day find a cure for this deadly disease, and today many of those promising diagnostic technologies and therapeutics are finally coming to fruition.

Seven years ago, a group of individuals from the molecular diagnostics and lab services industry combined their passion for actualizing emerging discoveries in the field of molecular biology and cancer. We created a company focused on providing academic-level testing capabilities to physicians, which would benefit patients in every community in the U.S. Our goal was to ensure that patients throughout the country would all have the same access to critical diagnostic information, regardless of where they lived. This powerful information would allow treating clinicians to provide the most appropriate therapy and offer each patient the best chance of survival.

This idea was born out of personal experience with family members living in rural communities who had breast cancer and didn’t get the same level of care provided to those fortunate enough to live close to a major academic center. We began our quest with a clear understanding that the only difference between the physicians treating women with breast cancer in larger centers and those treating in the rural communities was access to the high-value diagnostic information that could enable the complete assessment of a cancer. We named the company that was created to fill this unmet need Clarient. In six short years, we have become one of the largest providers of molecular pathology testing services for breast cancer in the U.S., and have now expanded into a broad array of cancers.

Cancer is an extremely complex disease. With more than 400 therapeutics targeted at specific protein pathways in the pharma pipeline, physicians around the world will need to have access to information that only very sophisticated testing services can provide. These powerful therapeutics will be the inflection point taking us into an unprecedented era of personalized medicine.

At Clarient, we feel very fortunate that our vision of “bringing clarity to a complex disease” has allowed us to touch more than 500,000 patients to date, and has prepared us for what lies ahead. The world of cancer management will change significantly over the next 10 years, and now, as part of GE Healthcare, we believe we can become the most relevant cancer diagnostics company in the world.

When we started Clarient, many people said we had a big imagination. As part of GE, we know our vision of transforming cancer into a chronic disorder is achievable—and we now have a healthymagination!

“At Clarient, we feel very fortunate that our vision of ‘bringing clarity to a complex disease’ has allowed us to touch more than 500,000 patients to date.”
Vscan Pocket-sized Ultrasound Imaging

Portable technologies help physicians bring diagnostics to patients, saving patients long trips to health centers (trips that often don’t get made at all).

The Vscan is a pocket-sized, battery-powered ultrasound scanner that allows trained clinicians to go into communities and schools to conduct tests for rheumatic heart disease—a disabling and largely preventable disease prevalent among children and adolescents in the developing world.

Where only three cardiologists serve an urban and rural community of 800,000, cost, quality and access are all huge healthcare challenges.

Facing that situation, Dr. Liew Houng Bang, director of cardiology at Queen Elizabeth Hospital in Kota Kinabalu, a provincial capital of East Malaysia, saw in Vscan a tool that “will transform the way we practice.”

The handheld Vscan can easily be integrated into physical examinations at the point of care, allowing physicians to conduct an internal inspection of the body, to make better and faster on-the-spot diagnoses and to better communicate with patients. Dr. Liew noted that “if you share blood pressure numbers with the layperson and tell them they must take medication for the rest of their lives, it’s a hard sell. Showing them the image of a thick heart can make an impact and hopefully influence patient compliance.”

Dr. Liew test-drove Vscan in the remote jungle village of Kampong Terian. “With nowhere to recharge Vscan, the battery life allowed me to examine at least 50 villagers, and I identified a few new cases of rheumatic valve disease,” he said.

Dr. Liew continues to work with key stakeholders, including the Malaysian Ministry of Health, to expand use of the health-saving technology. “Vscons are not too costly,” he says, “and they address the issue of accessibility. The key is how to train people up. I think it can be done.”

“This really could be the stethoscope of the 21st century.”

Jeffrey R. Immelt
Chairman and CEO, GE

View this press release online:
For most of us, a doughnut hits our sweet tooth. But for doctors, it’s all about the sweet spot of medical imaging. The “doughnut” is the nickname for the round hole that a patient slides into as part of an MR (magnetic resonance) scan. Recently, there have been breakthroughs in making the doughnut bigger—now there’s new technology that changes where the doughnut is and tailors it for specific body parts.

The Optima MR430s, which GE Healthcare just introduced, is a leap forward in MR imaging because only the targeted anatomy goes inside the system. The musculoskeletal MR system delivers precise imaging of the arm, including elbow, wrist and hand, or the leg, including knee, ankle and foot, allowing a patient to recline on a comfortable padded and adjustable chair.

The technology is also well suited to those who have trouble being still—or feel claustrophobic—in larger MR scanners. A more comfortable patient is also less prone to accidental movement during the exam—which means images are likely to be even clearer and more consistent.

This is how one football player put it: “I think the key word is ‘mobility.’ For you to be able to move around the machine, and the machine actually working to adapt to your injury—I think is the greatest experience for any athlete, or anybody. This is definitely for me!”

In keeping with healthymagination’s goal to create more access to healthcare, one of the advantages of the scanner is that it can help alleviate the demand on a hospital’s full-body scanner. As an addition to a busy radiology department, the system can relieve patient backlogs to boost department efficiency.

A small footprint allows for easy siting and lower installation costs, while the lightweight magnet fits through standard-size doors.

In addition, the healthymagination team has launched a partnership with renowned golfer and 2010 PGA TOUR player of the year Jim Furyk to educate people about injury prevention and the important role of MR technology in helping clinicians make optimal diagnoses when injuries do happen. It’s part of GE’s recently announced partnership with the PGA TOUR to showcase healthymagination innovations on the course, through various media activities, and for audiences watching at home.

Watch an inspiring, amusing video about this seriously important technology at http://www.gehealthcare.com/promo/optimamr430/.

View this story online: http://www.healthymagination.com/progress/technology/optima-mr430s/
Innovative Water Technologies Inc.’s (IWT) Sunspring water purification system has become the first non-GE Healthcare product validated by Oxford Analytica. That’s an important step for IWT in its efforts to provide solutions for clean, safe drinking water to people around the globe—and an important step in GE’s commitment to create better health for more people.

“Safe drinking water is critical in establishing and maintaining healthy populations around the world,” states Jack E. Barker, president of IWT and inventor of the Sunspring. “It’s very exciting for all of us to think about the difference we can make for so many people worldwide, and we’re looking forward to partnering with GE.”

“A critical element of healthymagination is partnership with like-minded companies,” said Trajan Bayly, director of healthymagination. “Sunspring is a powerful IWT innovation built in concert with GE innovation. Healthymagination validation is a testament to the benefits of IWT’s product. We are honored to celebrate this achievement with them.”

IWT integrates state-of-the-art technologies into the Sunspring from valued partners such as Pentair, a joint venture partially owned by GE Water & Process Technologies. Through this relationship, the Sunspring was identified as a candidate for healthymagination validation in 2009. The Sunspring has since received validation from Oxford Analytica’s Consulting Practice, the third party responsible for validating healthymagination products according to their measurable achievements in the areas of cost, quality and access.

In the last year, IWT and GE worked together to provide relief in the aftermath of the January 2010 earthquake in Haiti. Since the earthquake, the GE Foundation has purchased 12 Sunspring units for relief efforts. The units have been producing clean, safe drinking water for thousands of Haitians and relief workers, and many of the units have moved from emergency camps to become permanent fixtures in orphanages, schools, hospitals and villages.

Introduced in 2007, the Sunspring is currently producing safe drinking water in nine countries around the world, and is ideal for immediate, short-, mid- and long-term water solutions. Because the Sunspring will process up to 5,000 gallons per day for up to 10 years, it is one of the most economical water systems available, at a cost as low as $.0013 per gallon. Beyond GE’s healthymagination validation, the Sunspring is the only decentralized solar water plant in the world that is WQA (Water Quality Association) Gold Seal-certified to the U.S. EPA standard for microbiological water purifiers.

For more information about the Sunspring, visit www.innovativeh2o.com.

View this story online: http://www.healthymagination.com/progress/technology/sunspring/
We are standing at the brink of a major transformation in the delivery of healthcare in the United States, one with the potential to address many of the cost, coverage and quality problems plaguing our system. This transformation, we believe, is critical to the health and success of our nation moving forward. There is little doubt that we can rise to meet the challenges ahead. But we know all too well from our experience in the U.S. Senate that the greater the challenge, the more difficult it is to agree on the best way forward.

Fortunately, we can agree that an important first step is the continued development and widespread utilization of health information technology, which includes not only automation and connectivity but also decision support and informatics. Many efforts in the public and private sectors are already under way, promising to generate creative solutions, instruments and incentives to drive the successful and widespread adoption of health IT. Used wisely, it promises smarter, better coordinated and more efficient healthcare.

Health IT is the enabling force behind progress and change. Electronic health records will ease the flow of information across health providers and systems, assisting care coordination, supporting evidence-based decision making, and reducing the risk of duplicate tests, unnecessary procedures and adverse events. Not only will a better information stream give physicians the tools they need to help their patients, but better access to this information will also empower these patients and their families.

Chronic disease management is a good illustration of how health IT can help our entire system. Almost 50 percent of adults suffer from at least one chronic illness. Chronic disease treatment accounts for nearly 75 percent of annual healthcare costs in the United States, and individuals with more than one chronic condition account for 94 percent of Medicare dollars alone.

These conditions are often manageable and preventable, and health IT offers powerful opportunities to improve the quality of care provided to these patients while also saving healthcare dollars. For example, interoperable electronic health records permit any provider involved in a patient’s care to access information at the point of care, and innovative remote monitoring technologies send clinical information to providers’ offices between visits for feedback or care plan adjustments. Other health technologies assist patients in home care by facilitating medication adherence, providing care reminders, and enabling reliable and consistent communication with care teams. Consistent with the goals of healthymagination, health IT will help people—patients, caregivers and providers alike—make smarter and healthier choices.

Perhaps the most important transformation is the promotion of personal responsibility for one’s own health and healthcare. Empowering patients and their families to take a more active role in their care plans and in the health of their family members is necessary to shift the culture of healthcare in this country.

While we applaud the unprecedented effort to encourage the smart adoption of health information technology throughout the nation, there are many miles still to go on this long journey into our better future. We look forward to GE’s continued leadership and vision, confident that healthymagination and its innovative products and technologies will pioneer the way forward.
As I look back on our six-year collaboration with GE Healthcare, I find it reflects two things that are becoming increasingly critical to improving healthcare: partnerships that successfully leverage each organization’s strengths toward a common goal, and the relentless pursuit of learning and innovation. At Intermountain Healthcare, our commitment to remain a “learning organization” is written into our company’s vision, and it’s been a driving force behind our joint effort with GE to develop Qualibria. More than an electronic medical record, this new computer platform will significantly advance our clinicians’ ability to learn, share and deliver evidence-based medicine. And as real-time decision support helps inform clinicians at the bedside, the data they enter while using the technology will add to the evidence used to establish best practices for patient care.

Applying information technology to medicine is part of our legacy at Intermountain Healthcare. We were fortunate, from our earliest days, to have a transformational pioneer in medical informatics exploring this new territory in a computer lab at Intermountain’s LDS Hospital. His name is Dr. Homer Warner, and he and his colleagues began working in the 1950s to develop decision-support systems, first in cardiology. Their early efforts laid the foundation for an entirely new field of academic study, research and clinical endeavors. They created one of the world’s first electronic medical records—Intermountain’s now-renowned HELP system (Health Evaluation through Logical Processing), with its remarkable capability for data analysis and decision support.

Intermountain’s collaboration with GE builds on that legacy. Together, we aspire to using information technology at the point of care to make patient care safer, more effective and less costly. We look forward to the role it will play in helping people manage chronic illnesses, fight cancer and survive heart attacks, or, better yet, prevent them. GE’s reputation for innovation and powerful technology and Intermountain’s expertise in medical informatics and decision-support systems make this a landmark partnership with almost limitless potential. GE and Intermountain have a shared vision. Together, we hope to create advanced systems that facilitate best practices in hospitals and physicians’ offices nationally and internationally. Our partnership with GE helps make this level of collaboration possible.

GE and Intermountain have dedicated significant time and resources to developing the Qualibria platform. And although we began to pilot the platform across our organization in 2010, we know there is still much work ahead of us. We look forward to leveraging the combined strengths of our organizations in the years to come.

"Together, we aspire to using information technology at the point of care to make patient care safer, more effective and less costly."
Imagine. Twenty million low-birth-weight and premature babies are born every year around the world, primarily in developing countries. Four million babies die within the first 28 days of life—nearly 450 babies every hour. Many of these deaths occur in rural settings, where parents have limited healthcare and lack access to Western technologies like incubators.

I’ve met countless women who have lost their babies under these conditions. One mother who has always stood out in my mind is a young woman named Sujatha, who lives in a village in southern India. Sujatha has endured the loss of multiple babies. One child was born in a small, dark and dirty government hospital where newborns are placed directly on the floor due to lack of chairs or beds. Her baby died two days after he was born. Sujatha’s second child was born at home, two months premature, and soon turned blue from hypothermia. Her husband built a glass box and hung a lightbulb over it in a desperate attempt to warm the child, but it was simply not enough. Again they lost a child after two days.

Now imagine: An innovative, affordable infant warmer that doesn’t require a constant supply of electricity, designed for small health clinics around the world. An easy-to-use sleeping bag design that incorporates a phase-change material that, once heated, stays at a constant temperature, to keep babies warm so they can survive and grow up healthy. A portable device that can be used both to care for infants within the clinic and to transport babies to referral hospitals, when necessary. A warm Embrace for the millions of vulnerable newborns in these communities who can’t regulate their own body temperature.

After seeing the Embrace Infant Warmer, Sujatha wept and said: “If this had been here a few years ago, I could have been a mother. I could have saved my baby. We want to make sure this doesn’t happen to the future mothers of our village.”

Imagine further: A collaboration, between GE Healthcare and Embrace, to distribute this product globally. Better healthcare for people everywhere, starting with the most vulnerable population in this world—the babies who represent the hope for a better tomorrow.

Healthymagination will revolutionize healthcare by providing access to high-quality, low-cost technologies to disadvantaged communities. It represents GE’s bold vision for dramatically improving healthcare in even the most remote corners of the world. This vision is becoming a reality through partnerships with innovative companies like Embrace, which is developing a line of disruptive healthcare technologies for the “bottom of the pyramid.” Together, we will empower the disadvantaged to improve their lives, and ensure every child has a chance for a healthy life. The Infant Warmer is just the start. We hope to partner with GE to deliver many more products to these communities.

While incredibly saddened by the stories I hear every time I visit a village in India, the people I meet are hopeful and courageous, and desperate to lift themselves out of their current conditions. All they need is the opportunity, and access to basic healthcare.

As we left Sujatha’s village, we asked if there was anything she wanted us to bring the next time we came. Sujatha replied, simply, “better healthcare.”

Through Embrace’s collaboration with healthymagination, we hope to fulfill this wish for Sujatha and the millions of people around the world she represents.
By partnering with public and private entities, healthymagination is helping hospitals, cities, regions and countries increase their capacity to deliver quality healthcare safely while keeping costs under control.

In this section

Health of Nations, Dr. Nancy Snyderman on Healthcare in Saudi Arabia, Saudi Arabia, Al Iman, Bangladesh, Japan, Patient Safety, William Streck on Smart Patient Rooms, NHS Lanarkshire, GE Foundation, Cincinnati
How can data visualization help countries know how prepared they are to face their most significant healthcare challenges?

In May 2010, healthymagination launched a new data visualization project that examined how health affects work performance and vice versa. GE’s interactive tool was powered by a survey of more than 500 global corporate executives by The Economist Intelligence Unit—which is the business-to-business arm of The Economist Group, publisher of The Economist magazine. Now the survey results have been fused with new research and analysis, interviews, case studies, videos and volumes of data pulled from international sources such as the World Health Organization, the World Bank, the United Nations and the Organisation for Economic Co-operation and Development (OECD) to produce our comprehensive new “Health of Nations” online tool. The goal of the wide-ranging investigation and data index is to help assess how countries are positioned to meet the critical healthcare challenges facing them in the years ahead.

In the index, a site visitor clicking the “Strength in Numbers” tab would see how healthcare inputs, such as numbers of doctors and hospitals, correlate to actual patient outcomes. For example, the data found that Russia ranks alongside Norway, Japan, the Netherlands and other rich-world countries as “well above average” when it comes to inputs. But in measuring healthcare outcomes, Russia falls into the “well below average” category. Likewise, the U.S. spends well above the OECD average on healthcare, but receives only an “average” healthcare outcomes rating in the index. It’s hoped that analyzing data in new ways will highlight those types of disconnects—and ultimately lead to solutions.

In fact, as seen in the U.S. and Russian examples, one of the key findings in the index is that when it comes to healthcare, it’s not what you spend, it’s how you spend it. The overall results of the investigation show a low correlation between the total amount of healthcare inputs (number of doctors, hospital beds, vaccinations and the like) that a country buys, and the corresponding outcomes (adult mortality rates, prevalence of cancer, and so on) that it gets back in return.

Another finding in the research is that organizations that take better care of their workers tend to outperform the market. For example, The Economist Intelligence Unit’s global survey of 554 executives indicates that those firms that do provide additional health benefits and incentives also tend to perform “significantly better” than other companies in their sector.

The “Health of Nations” index and its precursor, the “Fit to Perform” data visualization tool, are part of the healthymagination team’s ongoing effort to turn oceans of health data into usable information that can actually impact people’s lives. This newest project is centered on the fact that healthcare systems around the world are facing, and will continue to face, profound challenges. For example, changing disease patterns, demographic shifts and tough economic conditions are just some of the forces combining to drive change in healthcare provision in many countries.

“One of the key findings in the index is that when it comes to healthcare, it’s not what you spend, it’s how you spend it.”

View this story online: http://www.healthymagination.com/progress/delivery/health-of-nations/
Perspective

A Behind-the-Scenes Look at Healthcare in Saudi Arabia

Healthcare in Saudi Arabia is multitiered, segmented and growing. The Minister of Health represents the central government, which includes the larger healthcare centers and teaching hospitals, where the bulk of the academic research is done. But when you drive down any of the busy boulevards in Riyadh, it is evident that subspecialty services are popping up everywhere, with storefronts advertising everything from podiatry to Lasik surgery.

Recently, His Majesty The Custodian of the Two Holy Mosques, King Abdullah Bin Abdulaziz, and H.E. Minister Dr. Abdullah Bin Abdulaziz Al Rabeeah, Minister of Health, announced intellectual and financial investments in healthcare in order to improve and significantly expand the reach of healthcare for their citizens, with an emphasis on women’s health. After an official visit to Saudi Arabia with John Dineen, Mike Barber and their teams, I spent several days in Riyadh to visit and talk with women representing almost all strata of Saudi society. I wanted to know more about the women the government is so enthusiastically reaching out to.

I spent evenings in women’s homes having enlightening and open-minded discussions about women’s progressive role. Women were eager to talk about their aspirations for themselves, their country and an improved healthcare system. The range of women included a group of business entrepreneurs, a member of the House of Saud, a princess who recently married into the royal family, university professors and women working in a local bazaar. What I learned as the newest member of the healthymagination team turned my conventional wisdom upside down. There is a lot to learn and opportunities for GE are everywhere.

I experienced a different view of women’s position in society. Women hold high positions in universities and by law earn the same salary for the same job as a man. But economic parity disappears quickly since women are prohibited from driving and may spend up to 30 percent of their salaries on a driver. While the divorce rate for women over the age of 50 is high, there is little social stigma, and women are comfortable making healthcare decisions. They are the gatekeepers of the family’s health.

The more educated women are aware of Western standards for breast cancer screening and the importance of getting mammograms. And contrary to what many people might assume, none of the women I spoke with had any reservation about seeing a male physician.

Saudi Arabia may offer one of the best chances to think upside down, across institutions and with mobility in mind. Even if mammography, ultrasound and MRI are available at an institution, if a woman’s driver doesn’t show up for work on the day of an appointment, she goes unscreened and undiagnosed. Instead of assuming the patient will come to the technology, how do we get the technology to the woman? Imagine screening centers in the ladies’ sections of the local malls and partnering with universities that can accommodate walk-in traffic. And how do we partner with established ambulance or van services, equipped with GE equipment and with our logo on the vehicle, to deliver care to the rural areas? Since the government owns the airwaves, why not co-create public service announcements about cancer and appropriate health and wellness programming? There is enthusiasm from the office of the Minister of Health for using broadcasting this way.

As we imagine what changes and opportunities might look like in Saudi Arabia, we need to ask if women are open to these ideas. What I heard repeatedly in palaces, living rooms, shops and around dinner tables was a resounding yes.

View this story online: http://www.healthymagination.com/progress/delivery/snyderman/

Nancy Snyderman, M.D.
NBC News Chief Medical Editor
Saudi Arabia  Transforming Healthcare

A prevalence of cardiovascular disease, obesity and cancer in Saudi Arabia demanded a paradigm shift in healthcare.

Continuing a partnership with public and private entities in Saudi Arabia that is nearly a century old, GE is helping reform the Kingdom’s healthcare system, as well as the nation’s perception of health.

The Ministry of Health and GE have a strategic cooperation agreement that includes a wide range of projects, including supplying equipment for hospitals and mobile units, training Ministry officials and healthcare workers to improve service and increase capacity, and engaging the population to change the way healthcare is viewed.

Applying healthymagination through digital platforms, GE is appealing specifically to women and youth, key demographic sectors with influence in Saudi society. The Saudi-focused Arabic- and English-language healthymagination.me Web sites include healthy living tips, a Health & Wellness data visualization tool and key findings from the healthcare sector.

GE has also trained nearly 1,500 technicians and more than 100 Ministry directors across 10 regions, while implementing efficiency gains at the hospitals, so more patients can flow through operating theaters. To increase access to quality healthcare, GE is developing two mobile units in coordination with the Saudi Cancer Society and the Ministry of Health.

Through these and other initiatives, GE is helping the Kingdom of Saudi Arabia promote healthy behaviors across the country and increase access to care at a lower cost for a larger segment of its population.

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Al Iman Hospital  Improving Patient Flows

Increasing capacity of operating rooms in growing regions like the Middle East would reduce wait times, improve the flow and quality of patient care, and help lower hospital infrastructure costs.

“Our needs were met through the introduction of new tools and methodologies from GE Healthcare’s Performance Solutions business. The hospital achieved excellent results. We will soon be engaging with our partners at GE Healthcare on various projects across our hospital to drive improvements and establish a performance-based culture.”

Dr. Yasser Basatini
Al Iman’s Medical Director

Saudi Arabia’s Ministry of Health established a plan to increase access and improve patient flow across 12 major hospitals in the Kingdom. Al Iman Hospital launched the first project focused on improving operating room efficiencies.

The Ministry teamed up with GE Healthcare Performance Solutions to identify “pain points” in the hospital’s operations and implement efficiency improvement processes. The staff was introduced to Lean and Six Sigma techniques, change-acceleration triggers and other quality improvement methodologies during the project.

As a result, utilization of elective operating rooms increased by 80 percent and patient caseloads rose per week by 27 percent. The hospital also reduced surgical elective waiting lists by 52 percent and improved surgical start times by 57 percent.

Now the hospital can handle more cases in operating theaters without the cost of building new facilities or expanding operating room space.

“Now the hospital can handle more cases in operating theaters without the cost of building new facilities or expanding operating room space.”

Meanwhile, the Performance Solutions team helped other Ministry hospitals involved in the initiative achieve similar results. They helped improve utilization levels at all the hospitals, by as much as 36 percent in one case, thereby reducing waiting lists and improving the overall experience of surgical patients. Performance Solutions is helping to make quality healthcare available to patients across Saudi Arabia.

View this story online: http://www.healthymagination.com/progress/delivery/al-iman-hospital/
GE is working to address cost, quality and access in this underserved area to reverse maternal deaths and help pregnant women come to full term and deliver their babies safely.

GE teamed with Grameen Kalyan—a sister company of Grameen Bank, the pioneering microfinancing organization that won the Nobel Prize for its work to alleviate poverty—to find ways to improve Kalyan’s existing healthcare delivery systems and primary care clinics in rural Bangladesh.

The partnership’s challenge was to figure out how to ensure that Bangladeshi women could carry their pregnancies to full term, and then deliver in a safe environment. Part of the solution was to help expectant mothers move with their families from home births with traditional birth attendants to regional facilities where they could be attended by midwives. In partnership with Grameen Kalyan, GE gained access to 30 resource-deprived rural clinics and supplied them with training and technology, including antenatal care and GE’s portable ultrasound system, LOGIQ Book.

Using the concept of task shifting, the partnership made some critical tasks the work of less-specialized health professionals. It successfully trained local Bangladeshi paramedics in ultrasound technology and designed and implemented a health integration system for referrals. GE and Grameen Kalyan have now trained 16 paramedics in obstetric ultrasound. More than 10,000 women in 50 rural communities have been screened and more than 500 obstetric complications (including placenta previa, ectopic pregnancy, pre-eclampsia, eclampsia and breech delivery) have been identified for treatment.

Key learnings from Bangladesh will be used to prepare ongoing trials as GE expands its evidence gathering to Indonesia, Vietnam and Africa.

Task Shifting: designing products for use by medical paraprofessionals rather than for physician-only use, making technologies more widely available.

View this story online: http://www.healthymagination.com/progress/delivery/bangladesh-grameen/
Japan is currently facing a fast-growing demographic challenge: It’s one of the world’s most rapidly aging countries and it also has a low birthrate. That situation creates problems both in healthcare for the aged and in sustaining economic growth despite a shrinking population. However, there are opportunities to turn the negatives into significant opportunities. It’s why the government of Japan has identified healthcare as a driver of future economic growth and positioned it as a pillar of its new growth strategy. It’s also why GE commissioned The Economist Intelligence Unit—which is the business information arm of The Economist Group, publisher of The Economist magazine—to study the problem. Its report, “From Silver to Gold: The Implications of Japan’s Ageing Population,” was one of the key themes at GE healthymagination Day 2010, which was held in Tokyo to mark the first anniversary of GE’s new business strategy.

GE Healthcare Japan President and CEO Akihiko Kumagai said Japan’s work on these tough issues can pave the way for others. By “establishing the organizational frameworks and advanced systems necessary to solve the problems that come with a rapidly aging society, we will be able to provide other countries with aging populations with a model for success,” he said.

As The Wall Street Journal noted in its story on the conference, “GE Chairman and CEO Jeffrey Immelt told the audience that Japan has an opportunity to be a leader in creating smaller medical devices to enable treatment of chronic diseases in homes instead of hospitals. This will help to lower overall healthcare costs, especially as medical breakthroughs change once-deadly diseases to chronic illnesses.”

View this story online: http://www.healthymagination.com/progress/delivery/aging-in-japan/
Through the Patient Safety and Quality Improvement Act, the U.S. Congress authorized the creation of Patient Safety Organizations (PSOs) to help hospitals reduce or eliminate adverse events by capturing and pooling data and analyzing and sharing de-identified information and insights.

GE Healthcare has engaged key policymakers, hospital leaders and data analytics business partners to create its own PSO, which received its official designation from the U.S. Agency for Healthcare Research & Quality (AHRQ), the agency responsible for implementing the PSO program, in February 2011. With 16 founding members, the GE PSO is one of the largest, with plans to bring on board more hospitals from across the U.S.

The GE PSO is tied to GE Healthcare’s Performance Solutions business, which is working with hospitals around the world to reduce unnecessary waste and improve efficiency.

Members of GE’s PSO have a single common medical-event reporting platform, and comprehensive data analytics and advisory support, to identify the root causes of risk and help hospitals make lasting safety improvements.

“Our Performance Solutions business has the elements necessary—reporting, analytics and advisory—to help hospitals make measurable and lasting improvements in patient safety,” said Jan De Witte, president and CEO, GE Healthcare Performance Solutions and Healthcare IT.

GE Healthcare has partnered with SAS Institute Inc. to create the infrastructure necessary to de-identify and analyze the data captured through MERS, a fourth-generation, Web-based event-reporting system used by all GE PSO members. With MERS, members not only can capture more event reports and near-misses than they would with other systems, they also can capture more data in each report.

“The system helps identify the root causes of risk and helps hospitals make lasting safety improvements.”

View this story online: http://www.healthymagination.com/progress/delivery/patient-safety/
Is it possible for a single innovative technology to positively impact the top patient safety risk factors in the hospital setting? Can such technology simultaneously serve as a training template to be leveraged broadly across clinical practice behavior? Can we provide transparency and demonstrate the linkage between cost and quality of patient care? These are a few of the questions under investigation in a research partnership among Bassett Medical Center (Cooperstown, NY), the Healthcare Association of New York State (HANYS) and GE Global Research Center and GE Healthcare.

Pursuit of such questions requires innovative thinking, sophisticated technology and collaboration between technology and the actual clinical delivery of care. Our partnership leverages the technical expertise of GE and the GE Global Research Center to create technology solutions aimed at the recognized high-value/high-risk elements of hospital care. By rapidly transitioning prototypes from research development to the hospital, researchers are able to observe a real clinical environment and receive feedback directly from healthcare providers and executives. Serving as a “living lab,” our facility enables a tighter linkage between scientist and healthcare teams to better understand the complexity of delivering healthcare, which results in better solution design.

The team has focused its effort on two interesting projects, the Patient Safety Forecaster and Smart Patient Room.

The Forecaster is a simple, intuitive application that enables healthcare executives to analyze essential patient safety and quality measures, identify performance improvement opportunities and understand the broader impact on financial metrics and clinical outcomes.

The Smart Patient Room is a unique integration of GE’s expertise in artificial intelligence–based reasoning and various sensor technologies that turn existing hospital rooms into what our Director of Critical Care Nursing termed a “guardian angel.” Using optical sensors to track the position and actions of clinicians and medical equipment, it provides real-time monitoring and gentle reminders for protocol adherence to assure patient safety. Initially, the Smart Patient Room monitors three important safety protocols: hand hygiene compliance, clinical rounding adherence and patient fall prevention. The system provides notification and tracks relevant data if risks are detected in these areas. In addition, robust datasets are generated and analyzed for teams to understand underlying processes that could be targeted to reduce these risks.

- **Hand hygiene:** Did clinicians wash their hands before and after caring for a patient? The system tracks when hand washing should be performed, and can provide immediate feedback when it’s not to reinforce proper behavior.
- **Clinical rounding adherence:** Did the nursing staff make rounds on schedule?
- **Patient fall prevention:** Are there signs that a patient might be at risk for falling? These may include changes in the patient’s behavior as monitored by electronic body-position profiles.

This is just the beginning. GE’s Global Research Center is also developing detection tools for other protocols, including pressure ulcer (bedsore) prevention and patient pain classification, among others. The goal of this collaboration is to drive cultural change for hospitals and staff to reduce the risk to the patient, improve clinical outcomes and deliver higher-quality care at lower cost.
GE Healthcare’s Performance Solutions team has partnered with more than 1,500 healthcare organizations—such as the NHS Lanarkshire hospital system in Scotland—to leverage process improvement methodologies for improved operations in key areas.

The Performance Solutions team has engaged with NHS Lanarkshire, applying Lean and Six Sigma process improvement techniques to help increase efficiency, streamline operations and ultimately deliver a better quality of care to more patients.

Through an analysis of NHS Lanarkshire’s performance data and stakeholder interviews, Performance Solutions learned that improvement was needed most within the Acute Emergency Care and Mental Health departments.

After a year, the Performance Solutions team facilitated improvements throughout the hospital system, including:

- Within the Mental Health Group, an increase of 350 percent in therapeutic group activity and an increase of 280 percent in group attendance;
- Within the Acute Care Department, a significant reduction in emergency admissions of elderly people, due to a novel deployment of specialist nurses in the Accident and Emergency department, enabling the service to mothball beds at significant cost saving while still improving the quality of care to patients.

**Process Improvement**: using methodologies such as Lean and Six Sigma to streamline patient flows; right-size inventories; improve operational, clinical and financial outcomes; and reduce costs.

View this story online:
http://www.healthymagination.com/progress/delivery/lanarkshire-hospital/
Recognizing the range of healthcare challenges faced by underserved populations in the United States, the GE Foundation, in partnership with the GE Corporate Diversity Council, launched Developing Health (DH), a grant program that aims to increase access to primary care and improve quality in targeted communities.

This three-year, $50 million program combines GE Foundation's grant funding and skill-based employee volunteerism to nonprofit health centers across the United States. Forty-seven health centers in 11 cities have benefited from the program.

Thanks to DH grants, at the West End Medical Centers in Atlanta, 1,500 pediatric patients receive oral health and dental care; the Louisiana Public Health Institute in New Orleans supports the School Health Connection program in Orleans Parish and has the potential to serve more than 38,000 students through school-based health centers; and in Baltimore, the People’s Community Health Center is improving birth outcomes for 200 newborns in the Waverly community.

GE employee-volunteers are partnering with the health centers to help with such tasks as growth playbook implementation, process improvements and regulatory and procedural compliance. Last year, more than 650 GE volunteers from the Hispanic Forum generated over 2,600 hours of service at 11 sites in Southeast Houston, in partnership with El Centro de Corazón. Volunteers distributed food, provided mentoring, digitized patients’ records, facilitated facility improvements and assessed health needs.

Other volunteer GE teams are composed of leaders from the Women’s Network; African American Forum; Asia Pacific American Forum; Veterans’ Network; and Gay, Lesbian, Bisexual, Transgender and Allies Alliance, who identify project opportunities and rally the support of the local health center business team.

“The GE grant is helping to ensure that we have a strategy to sustain these clinics. With its history of partnering with federally qualified health centers that sponsor SBHCs in other parts of the U.S., GE can really facilitate our success and support our needs.”

Marsha Broussard
Director of the School Health Connection program
Cincinnati  Healthcare System Breakthroughs

What happens when an entire healthcare system of payers, providers, patients, employers, nonprofits and governments works together? Optimal community health happens.

In Cincinnati, where GE has a major presence, communitywide actions have brought coordinated solutions across all segments of the healthcare system to help reduce costs, raise quality and increase access to healthcare in the city.

Cincinnati’s history of healthcare quality and cost challenges is similar to that of other U.S. cities. More than 12 percent of its population lacks health insurance, the mortality rate is higher than average and annual health spending increases have been averaging 8 percent.

But Cincinnati also has a long history of public-private collaboration. In early 2010, GE worked with community leaders and other local corporations to catalyze citywide, comprehensive approaches to reducing costs and improving quality of and access to care.

The results?
In the spring of 2010, none of the primary care practices in the region met the patient-centered medical home (PCMH) requirements of the National Committee for Quality Assurance. The Health Improvement Collaborative of Greater Cincinnati, with GE’s help, made the team-based, coordinated and preventive care features of PCMH practices a core part of its regional transformative efforts. Thanks to this work, more than 10 primary care practices met the PCMH requirements by the end of 2010; that number is projected to pass 100 by the end of 2011.

Expanding access to healthcare information technology is the focus of HealthBridge—the community’s health information exchange. Thanks to a federal Beacon Community award, and a significant in-kind commitment by GE, HealthBridge is helping Cincinnati become a medically wired community, which will lead to higher quality and lower costs.

Several other grassroots projects are under way, such as the goVibrant campaign, which is making being healthy a community standard; We THRIVE, the county’s childhood obesity reduction program; and YourHealthMatters, a Web site reporting on how well local physicians meet five standardized measures of care for diabetics. GE is working to share best practices with these and other local programs, such as the Health Guide from Care Innovations—a new home health tool for GE Aviation employees and retirees and their spouses with type 2 diabetes. And now that substantial progress is being made in these areas, the community is turning its attention to payment innovation. This effort will not only catalyze the spread and sustainability of all of the community’s collaborative quality-improvement initiatives, but also contribute to reducing healthcare spending by more than $1 billion by 2014.

View this story online:
http://www.healthymagination.com/progress/delivery/cincinnati-healthcare/
By creating easy access to clear, action­able information, healthymagination is helping consumers participate in improving the quality and cost of the care they receive.

In this section

John de Souza on Mobile Health, Data Visualization, Healthline Networks, Jim Furyk on Surprising Innovations
Perspective
How Mobile Health Is Revolutionizing Patient Empowerment and Experience

There have been many attempts to get people more involved in their health. Yet as the growing rates of obesity and chronic conditions such as diabetes show, these attempts have not achieved the hoped-for results. The problem isn’t desire—people want to feel healthy. The issue has been that these solutions were too demanding and did not engage people on their terms.

Mobile technology is changing the playing field, making it easier for people to understand and take charge of their health—on their terms, at their time. Put another way:

Mobile Dramatically Lowers the Activation Energy for Participating in Your Health

It has transformed the way we do everything from managing finances to communicating with loved ones after a disaster. It is more intimate, more personal than a computer—and more powerful in many ways. By being online and with you all the time, mobile allows you to access information wherever you are, quickly and discreetly.

This ability to tap in "any time, any place" results in more accurate data. Did eating help relieve the headache, or trigger it? Armed with more precise insights into one’s own behaviors and patterns, a person can start to take action to reach better health outcomes.

This additional data also enhances doctor-patient communication and enables doctors to make better, more personalized decisions regarding patient care.

The Mobile Revolution Has Just Begun

There are few technologies that have the power to touch and influence people around the world the way mobile does:

- The number of people using the mobile Web is expected to surpass PCs as the most popular way to get online by 2015.1
- This is particularly true for many developing countries, like India, where 59 percent of users access the Web only through their mobile device; in Egypt, the number rises to 70 percent.1
- More than 500 million people, or about 30 percent of an estimated 1.4 billion smartphone subscribers worldwide, will be using mobile health apps by 2015.2

This global footprint will be coupled with increasingly powerful and more sophisticated handsets, resulting in a new generation of mobile health solutions. Phones will have faster processors, better screens and more complex sensors, making them powerful tools that can not only track how far and how fast you’ve walked, but one day soon, will also scan barcodes to tell you if a food is healthy or not, or measure your heart rate and immediately communicate this information back to your doctor.

Putting Mobile to Work for Health

GE healthymagination and MedHelp recently partnered to launch a series of mobile apps that are empowering people to take control of their health in a way that only mobile can. These apps leverage both the simplicity and the power of mobile. For instance, the Moody Me app allows people to track their mood throughout the day and note what affects it. By tapping into their camera phone, Moody Me users can take pictures of things that make them happy or sad to see what triggers changes in mood. Users can also record things like medications to see how effective treatments are.

These apps, which have been downloaded more than half a million times, are in the hands of people around the world, providing solutions to common health issues, like helping women have healthier pregnancies and encouraging long-term weight loss.

Apps like this are just the beginning. By putting the power to manage one’s health literally in the palms of a person’s hands, mobile is transforming healthcare.


View this story online: http://www.healthymagination.com/progress/empowerment/de-souza/
Data Visualizations, which present information in a personal and compelling manner, engage audiences and individuals in new ways that can help inform decisions, create conversations and broaden collaborations.

Using data from healthymagination initiatives and from government and NGO partners, GE has embarked on an ambitious data visualization program, which helps to simplify information and data in context, clarify the value of solutions and draw people in to share what they’ve learned.

For example, the data visualization Measuring Hospital Quality leverages data from The Joint Commission’s 2009 Annual Report on Quality and Safety to allow consumers to compare and contrast hospitals in each state according to 30 specific measures of quality. The visualization takes valuable but difficult-to-navigate data and makes it engaging and easy to explore and use.

Data visualization went global with Health in Saudi Arabia. GE partnered with the Ministry of Health to conduct a survey on the relationship between Saudi consumers and their health. By making the numbers digestible and personal, data visualization engaged Saudi consumers in a unique manner.

In 2010 alone, more than 2 million data visualization views extended GE’s reach on healthymagination programs and global health issues, creating a dialogue with consumers and strengthening GE’s relationship with customers and partners.

“Using data from healthymagination initiatives and from government and NGO partners, GE has embarked on an ambitious data visualization program.”

Consumerism: empowering individuals to play a larger role, both in decisions that affect their health and in the quality and cost of their care.

View this story online: http://www.healthymagination.com/progress/empowerment/data-visualization/
Show, don’t tell, people how their bodies work. That’s a powerful technology-enabled strategy to boost health literacy, which is a stronger predictor of health than age, income, employment status, education level and race.

With Healthline Networks’ 3D online models of the human body, patients have a learning tool that can be easily accessed before, during or after a visit to a doctor. The more people understand their bodies, the more proactive they become in managing their care and making informed treatment decisions.

The human body is complex, and few consumers seeking health information really understand its structure and how it works. So healthymagination and Healthline Networks developed an innovative, educational and visually stunning 3D model of the human body to help consumers improve their health literacy.

Healthline BodyMaps is a free tool that allows users to tap complex medical data. Unlike standard online anatomy tools, it can be easily accessed and shared. It takes people on a visual journey of the body and medical conditions, and connects them to the most relevant information regarding their health decisions.

BodyMaps includes male and female versions of 28 different organs and systems, and uses the highest-quality, color 3D interactive body models available. It matches 1,000 consumer-friendly anatomical terms with easy-to-read articles that help people get beyond complex medical terminology and truly understand what’s happening inside their bodies.

BodyMaps is part of healthymagination’s mission to bring better health to more people through access to empowering health information.

View this story online: http://www.healthymagination.com/progress/empowerment/healthline/
Throughout my golf career, I’ve done my best to stay healthy—by eating right, staying fit and taking care of my body when it gets injured. As a professional athlete, not to mention father of two, I’ve had my fair share of trips to the doctor’s office, trainer and hospital, and I know how important it is to stay on top of your health. That’s why I’m excited to partner this year with GE healthymagination in their mission to bring better health to more people. I look forward to leveraging my own health experience to encourage others to maintain a healthy lifestyle, and—together with the PGA TOUR—to demonstrating the power of GE’s innovative technologies for improving the quality of and access to healthcare for millions of Americans.

In 2004, I had a left-wrist injury that sidelined me for half the season and forced me to undergo multiple MRI scans. If you’ve ever had a full-body MRI, you know how uncomfortable it can be to hold yourself still in that tiny tube for 45 minutes. Around the same time, I discovered I was claustrophobic, which only added to my discomfort! At the Arnold Palmer Invitational at Bay Hill, I was able to check out a surprising new MR extremity scanner from GE that would have completely changed my experience. The Optima MR430s isolates the injured arm or leg, allowing the patient to avoid having to go through the traditional full-body MRI. You can actually read a magazine or watch TV while getting scanned, all while relaxing in an easy chair. The Optima MR430s seems so simple, yet it really opened my eyes to how health innovations and design can dramatically improve a patient’s experience, all the while providing your doctor with the same high-quality images he or she needs to get an accurate picture of your injury.

I had the opportunity to experience firsthand the benefits of another healthymagination technology when I underwent a scan from GE’s Lunar iDXA, which analyzed my body composition. In less than eight minutes, I was provided with an in-depth analysis of my body—everything from body fat and muscle distribution to bone density. It was even able to tell me that the left side of my body has more muscle build-up than the right side, a fact that could considerably impact my game. In a game like golf, that’s powerful information that can help guide my training regimen to achieve optimal performance.

GE is making important technological advances in health that can benefit everyone—from the professional athlete to the weekend warrior—and I’m thrilled to serve as an ambassador for healthymagination. Next time I or someone in my family needs to go to the doctor, or address an injury, I’ll be comforted knowing that GE is working hard to ensure I have access to the latest, most innovative technologies.

View this story online: http://www.healthymagination.com/progress/empowerment/furyk/
Through a variety of employee engagement programs and tools, GE is working with its 300,000 employees to advance its culture of health.
For both GE and its employees, much of 2010 was spent learning more about health and healthcare, fine-tuning tools and programs to provide better information, and understanding the effects of the choices we make.

Central to HealthAhead is a unique certification program that measures GE work sites on eight critical elements: site leadership and wellness teams, education and prevention, nutrition, physical activity, tobacco cessation, stress management, health-related absences and an assessment of health risk. Through the site certification program, employees benefit from subsidized healthy food in cafeterias, lower-cost fitness options and opportunities to learn about ways to reduce stress or stop smoking.

In 2010, 87 GE sites around the world were certified by HealthAhead, and more than 300 sites are planning to be certified in 2011. Globally, thousands of employees participated in the companywide “Health by Numbers” challenge that encouraged employees to choose healthier lifestyles. Some of the numbers the challenge focused on are zero tobacco use, eating five fruits and vegetables a day, walking at least 10,000 steps daily and maintaining a body mass index (BMI) of 25 or less.

While the metrics for evaluating each site are the same around the world, in typical GE fashion, each site has its own approach to implementing programs that achieve maximum benefit for employees and family members locally.

**HealthAhead on Location**

**Tobacco-free campuses:** GE set a goal in 2010 to have tobacco-free campuses worldwide by November 1, 2011. Each GE site will work toward the new tobacco-free standard based on local needs, in compliance with applicable laws, regulations and labor agreements, and with input from employees, managers, unions and works councils. While not requiring employees to quit using tobacco, the company is offering the tools and resources they need if they wish to quit, including nicotine replacement therapy. In 2010, more than 3,300 U.S. employees and dependents were using QuitNet. By the end of 2010, 120 of 295 GE-owned-and-operated campuses were tobacco-free.
Biking at work: The GE Energy site in Jenbacher, Austria, launched a bike program to help reduce greenhouse gas emissions and help employees increase their physical activity. In the summer of 2010, it brought more than 120 company- and employee-owned bikes to campus, half for transportation on-site. They also set up a “self-service station,” with tools for quick fixes and compressed air for tires, and established a process to have bikes serviced, if needed, at a local bike shop.

Working together nutritionally: GE Capital in Merriam, Kansas, realized that getting serious about nutrition was a crucial step in achieving its health goals. When a weight management program was extended to family members, participation skyrocketed. Since then, employees and family members have collectively lost more than 900 pounds. The site has also partnered with Sodexo food services to revamp the cafeteria, increasing the percentage of healthy food on the menu and lowering its cost. And with the assistance of a local farmer, they’ve created an on-site, low-cost farmers’ market, stocked with fresh fruits and vegetables from local farms.

Celebrating healthy eating: Florence, South Carolina, has its share of festivals, celebrating everything from azaleas to grits. GE’s Florence site started a new tradition—“A Festival of Salads,” a creative pursuit in which employees share healthy salads for team lunches. Employees have also organized “healthy potluck” lunches, using low-calorie ingredients and unique recipes. And they’ve implemented an on-site weight management program, open to family members, including fun team weight-loss challenges.

From a HealthAhead Partner

As a long-term food-service business partner, Sodexo proudly supports GE’s commitment to improving the health of its employees and their families through HealthAhead.

In our robust culinary and marketing program, complete with an extensive recipe database, strong employee training and the ability to integrate nutritional information on our labels and signs, we have the tools needed for successful HealthAhead global implementation. Today, Sodexo partners with 36 GE sites in North America, with 24 HealthAhead-certified locations to date. We couldn’t be more pleased with our relationship and are looking forward to growing and expanding our partnership in the coming years.

Mark Bickford
President, Corporate Service Solutions

View this story online:
http://www.healthymagination.com/progress/at-ge/healthahead/
In 2010, the company launched GE Health Choice, a consumer-driven plan for U.S. salaried employees. The plan provides high-quality benefits and financial protection against catastrophic illness, while asking participants to share more of the cost and to take a more active role in their healthcare spending and decision making.

In 2010, the company learned that employees were closely tracking HealthAhead metrics. So it made changes to the online portal employees use to manage their healthcare accounts. Based on employee feedback, it improved site navigation, simplified claims payment and improved customer support. It also carefully monitored the use of services to make sure employees weren’t avoiding care.

The results in 2010 were promising. Fewer people visited emergency rooms for nonemergencies and the use of generics over branded drugs increased. There is no evidence that GE employees on Health Choice are skipping medical care or failing to take their medication. In fact, adherence to medications was up slightly, and visits to doctors for special or chronic conditions remained consistent with prior years. Another indicator of success is that GE’s healthcare costs for salaried employees were lower in 2010 than in 2009.

In addition, a Health Coach service helps employees select quality doctors and treatments, and answers their questions about the best treatment options.

The service has been expanded to provide additional types of support—such as lifestyle coaching and help with after-hours treatment options—at no cost to employees, retirees and covered family members.

“Faced with rising healthcare costs and huge variations in quality of care within our healthcare system, employers have an interest in helping employees and their covered dependents who are changing doctors to identify and choose high-performing physicians. This approach is thought to have considerable promise as part of a value-based purchasing strategy.”

Journal of General Internal Medicine, June 16, 2010

**Health Choice  Consumer-Driven Plan**

Faced with the need to maintain quality healthcare for employees while controlling costs, companies like GE are promoting consumerism in healthcare, giving employees the information and support they need to make better choices.
What is a consumer-driven plan?

With copay healthcare plans, participants almost never see the full cost of services, and they may not realize that their copay could be just the tip of the iceberg. Because they don't know the full cost of care, consumers often choose unnecessary, higher-cost services. Many companies have realized that when employees are more aware and share more of the costs, they make better decisions. For example, a patient who visits the emergency room for a bad sore throat could have chosen to go to a clinic or urgent care center for the same level and quality of care at less than half the cost.

What We're Doing

Using what we know about our employees' healthcare needs and behaviors, we're shaping our new Health Choice consumer-driven medical benefits plan to help our U.S. salaried employees make smart choices that will protect them and their families while slowing down the rate of healthcare cost growth. Already the numbers are impressive.

GE and its employees saved more than $7 million by switching from brand-name prescription drugs to generic alternatives.

Nonemergency ER visits dropped by 20 percent—saving GE and its employees about $3 million.

Health Coach, a free 24/7 service received 28,000 calls answering questions about doctor selections and treatment options.

What We're Learning

With a global workforce of more than 300,000, GE has lots of experience supporting the health of a significant number of employees and their families. From our 133,000 employees in the U.S. alone, we’ve gleaned plenty of interesting and actionable healthcare data.

More than 7 million prescriptions were filled—a rate of about one every five seconds.

More than 50,000 ER visits were made, about 140 each day. About 33%, more than 16,000 made, were for nonemergencies.

More than 1.5 million doctor visits were made.

View this story online: http://www.healthymagination.com/progress/at-ge/health-choice/
HealthAhead Heroes

Paige Bradley Murray—Mobile Mammography

Prevention is one of the eight elements of HealthAhead, and Paige Bradley Murray, a GE Appliances employee in Louisville, Kentucky, demonstrated how just a single focus area can change someone’s life forever. When a mobile mammography unit rolled into Louisville’s Appliance Park last year, 40-year-old Paige had her first-ever mammogram and discovered she had breast cancer.

Following surgery, she had six weeks of radiation therapy and chemotherapy every three weeks. Just over a year later, nearly 150 of her fellow employees celebrated Paige’s recovery and return to work. “I was so impressed with how GE teamed up with the Cancer Center and brought [the mammography unit] out to us,” Paige says. “I’m just so grateful. It really warmed my heart to know that they really do care. And, in my case, they saved my life.”

Rashmi Sareen—Stress Management

Managing stress is a key element of HealthAhead, but it’s not always as easy to implement as fitness or nutrition. Around the world, GE sites offer yoga, tai chi and even laughter therapy. Employees like Rashmi Sareen, a cash officer at GE Capital in Montreal, Canada, have found unique ways to manage stress in their daily lives.

When Rashmi started at GE, she registered for Indian dance classes at a local studio. “I wasn’t looking to change my lifestyle, but the classes were so much fun, they have now become an integral part of my life,” she says. Before joining the dance classes, Rashmi says she wasn’t very physically active. The classes have boosted her energy level, improved her overall physical well-being and helped her manage day-to-day stress. What’s more, Rashmi is helping to set up Hatha yoga classes at work, and now she’s planning to run in a 5.4-kilometer event to promote cancer research.

Tim Schneller—Healthy as a Family

HealthAhead focuses not only on the health of employees but also on the health of employees’ families. Tim Schneller of GE Intelligent Platforms, in Charlottesville, Virginia, shows how fun it can be to get and stay healthy as a family. When he and his family began the program, Tim, at 6 feet 4 inches tall, weighed 360 pounds. “I would consume 4,000 calories a day,” he admits. “An afternoon snack was a soda and candy bar.”

To start, the family—including Tim’s wife Christine and daughters Carolyn and Rachel—set up a good support system that included contests to help them make healthy food choices, stay focused and have fun. Tim and Christine trained for four- and 10-mile races to jumpstart their workout of choice—running. In total, the family has lost 160 pounds, and everyone exercises between three and five times each week. And everyone eats healthier. “I know for certain we wouldn’t have been as successful if we weren’t all working on being healthy together as a family,” Tim says. “That has made all the difference.”

Prakash Jha—Health by Numbers

GE’s Health by Numbers program inspired Prakash Jha of GE Energy in Hyderabad, India, to quit smoking and get fit in 2010. Some light-hearted ribbing from friends about his weight pushed Prakash to make changes. “That night,” says Prakash, “I decided to lose weight. Then came GE’s Health by Numbers Winter Olympics challenge, and that changed my life.” During his first workout, Prakash couldn’t jog for long, but the challenge at work helped him gain stamina and end his one-pack-a-day smoking habit. That was the toughest challenge of all, he says. Today, Prakash starts each day by jogging, stretching and doing yoga. And he eats a healthy diet that includes five meals daily with lots of protein, fiber and fruits, but no meat. How does he feel? “Like king of the world. I’m ready to meet any challenge at home or work.”

View this story online: http://www.healthymagination.com/progress/at-ge/healthaheadHeroes/
To learn more about GE’s healthymagination strategy and get updates on progress as it relates to products, services and our overall commitment, please visit www.healthymagination.com.

If you’d like to share this with colleagues, refer them to www.healthymagination.com/progress, where they can download the full report.