

TECHNOLOGY IN HEALTHCARE



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GEAR FOR A HEALTHIER YOU

From smart scales to yoga lessons on your wrist, this tech will help you live your best life



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CODING TO BATTLE DISEASE

How African programmers are using innovative tools to curb hunger across the continent



The UAE's healthcare sector could expand by as much as 60 per cent over the next few years, as a growing population stressed by lifestyle diseases, a maturing regulatory climate and the widening embrace of new technologies combine to increase demand for the industry's services. Without the necessary digital infrastructure, however, this prodigious growth could leave the trade unable to benefit from the opportunities ahead.

"The UAE is among the top 20 countries for health spending per capita and the country accounts for 26 per cent of the total healthcare spending by GCC governments," Prasanth Manghat, CEO and Executive Director at NMC Health, told *Gulf News* recently. "All the money would translate into creating [new] capacities and capabilities."

Demand boom

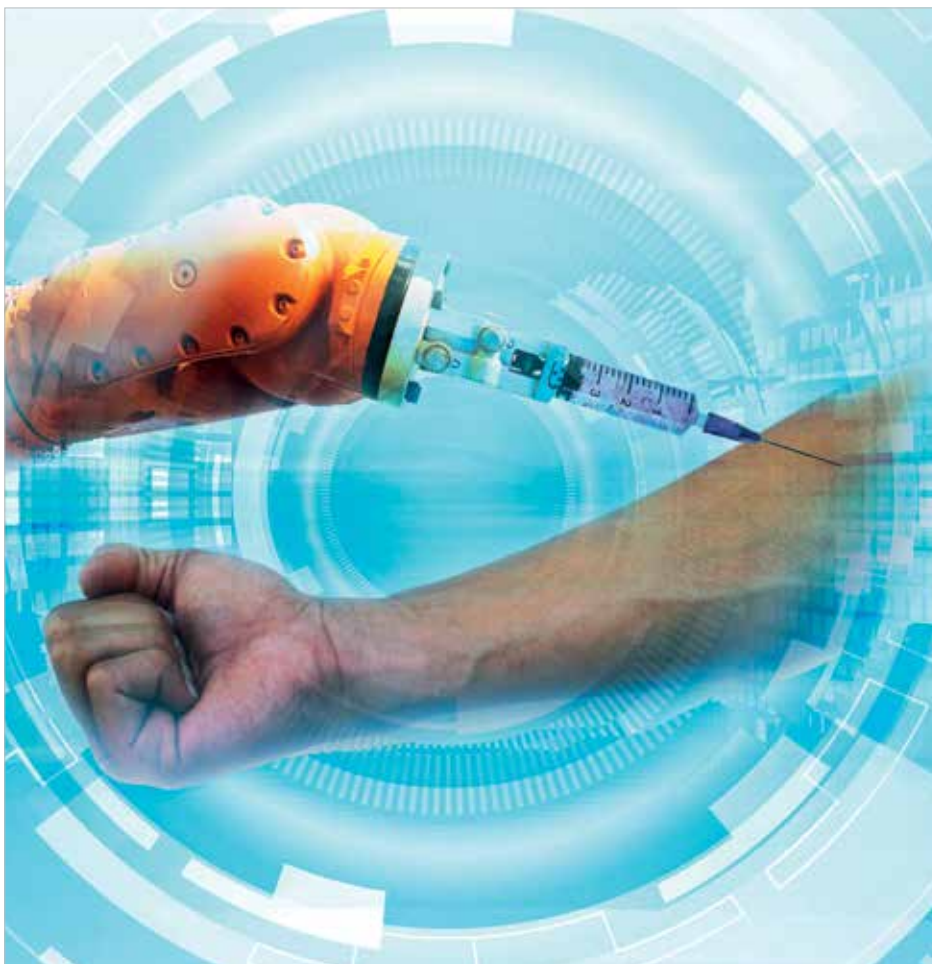
The nation's healthcare market is poised to swell 60 per cent to more than Dh103 billion over the five years to 2021, according to data from MENA Research Partners. Burgeoning demand for preventative care and digital medical services will contribute to this growth in a big way, alongside expected improvements in healthcare quality.

The UAE has emerged as the region's leader in digital healthcare, with total investments of more than Dh850 million, according to data provided at this year's Mena Medtech forum, held at Dubai Health Care City in April. "The digital revolution has touched on all fac-

DIGITAL SHOT IN THE ARM

- Healthcare providers in the UAE are embracing rapid digitisation to deploy new technologies across the board – and patients are set to benefit

By KEITH J. FERNANDEZ
Special to GN Focus



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ets of healthcare. It is in line with the UAE vision 2021," Dr Salem Al Darmaki, special adviser to the UAE Minister of Health and Prevention, said in

a keynote at the event. He touched on the rapid digitisation of the sector through innovations such as paperless patient records, software-enabled

diagnostic systems, robotic surgery, telehealth and e-pharmacy.

The sector's smart patient-centric approach has reduced the burden of

healthcare expenditure.

Technology will play a much more important role in the future of healthcare, says Howard Gough, CEO Europe, Middle East and Africa, Global Health Solutions and Global Government Solutions, Cigna. "Artificial Intelligence will have further uptake and at faster rates, with significant improvement in working through huge amounts of data and algorithms to arrive at a pattern to predict outcomes.

"As governments look to optimise healthcare costs, there is also an increased opportunity to back such initiatives to reduce the overall disease count and costs.

"Robotic surgery is another technological advancement that is likely to deepen its presence in the region. Some hospitals have already embarked upon the journey of introducing this modality in their service lines and the trend will continue."

Worldwide, IDC expects digital healthcare services to account for 6 per cent of global healthcare expenditure by 2021, the market intelligence firm said in its most recent annual study, published in November. The forecaster expects digital mobile engagement among life science companies, patients, and providers to have increased 50 per cent by 2019, improving brand sentiment, clinical trial recruitment and medication adherence.

By the following year, 20 per cent of global healthcare organisations will have moved beyond pilot projects and will be using blockchain for operations

SEE OVERLEAF

CONTINUED FROM PAGE 1

Digital shot in the arm

management and patient identity, while adoption rates of IoT-enabled asset tracking and inventory management systems in hospitals will double, improving patient safety, staff satisfaction and operational efficiency.

With its stated aspirations to be a leader in blockchain technology, Dubai in particular is expected to be an early mover in the healthcare applications on this front. "Blockchain in general potentially can help make patient data not only more secure and private but also transparent to those individuals that need to access it, as well making it more efficient for medical professionals and patients alike — essentially less admin and more efficient and safe data sharing," says independent economic development consultant Richie Santosdiaz.

"This will in effect go across sectors such as healthcare and life sciences, where interactions between patient and medical professional will be transformed. And there potentially will be demand for technology suppliers to be able to cater to the changes."

Doctored technology
On the ground, local clinics and hospitals have already embraced many innovations. "Technology has changed our profession in ways we could not imagine. New machines and lasers come in the market every day, decreasing surgical time, pain and recuperation time," says Dr Luiz Toledo, Chief Plastic Surgeon at Shape Medical Centre in Dubai. "We started using computers for consultations in 1992. This gives us a better understanding of what the patients want and also allows us to ex-

60%
Projected growth in the UAE's healthcare market over the period 2016 to 2021

DH850M
Estimated value of the country's total investment into the digital healthcare space

6%
IDC projection of digital share of global healthcare expenditure by 2021

plain to the patients the limitations of each technique. Medical records are now electronic as well as the normal patient files.

A doctor can access patient information from anywhere in the world. Specialist WhatsApp groups allow doctors from different continents to discuss cases and choose the best technique for a case over a mobile phone," he tells *GN Focus*.

That chimes with the trends across the industry. At the Avivo Group, a UAE operator of hospitals and clinics, CEO Dr Dilshaad Ali agrees that the nation's positioning as a centre of excellence for healthcare will lead to a growth in complex treatments and procedures as technology is optimised and expertise is enhanced across the board. "There have always been investments by providers in cutting-edge technologies towards care and procedures performed in the hospitals in the country. Aside from the hardware of technological paraphernalia that continue to evolve, there will be greater exposure to digitisation of healthcare in the country. With accessibility being extended through digital interfac-



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• Electronic records make it easy for specialists to exchange medical data

es, personalised digital healthcare will enhance patient experiences and offer remote solutions for patients, especially in disease management programmes and chronic disease management."

Data in the details

And on the treatment front, pharmaceutical manufacturer Julphar has been leveraging technological collaborations for real-time scrutiny of diabetes. The UAE-based company most recently partnered with San Diego-based healthcare manufacturer Dexcom to improve its portfolio of solutions for type 1, type 2 and gestational diabetes. "Through our partnership with Dexcom, we offer patients the G5 Mobile Continuous Glucose Monitoring (CGM), which provides real-time dynamic glucose data that can be accessed on any smart device," Jerome Carle, General Manager of Julphar, tells *GN Focus*. "The sys-



Howard Gough
Cigna



Dr Luiz Toledo
Shape Medical Centre



Dr Dilshaad Ali
Avivo Group

tem eliminates finger stick testing and shows where a patient's glucose is, where it's going and how fast it's getting there. Thanks to innovations such as this, we are helping to reshape the way patients and doctors look at the management of diabetes and transferring the control to patients."

Consumers now intuitively understand how technology can improve their health. Seventy-six per cent of UAE respondents in Cigna's 2018 360° Well-being survey said they were highly open to health data sharing with third parties if it lowers healthcare costs, provides better access to healthcare and enables early detection of illness. "This is a great insight showing that people in the UAE have trust in the healthcare industry," says Gough. "Technology can help people manage wellness more proactively and shift the dialogue from treatment to prevention." ■

LIGHTEN UP: LASER THERAPY COULD SEE AN END TO BACK PAIN

• Combining spinal decompression with lasers is a new, non-invasive way to treat pain, finds **Hilary Freeman**

One night, receptionist Nicola Boggio awoke in agony in the small hours, her neck, arm and shoulder so stiff that she could barely move them. Thinking it was just a postural problem made worse by a work massage — she'd had bouts of back and neck pain in the past — she went to see a local osteopath. "He said I needed bone manipulation and acupuncture," she says. "But when he did the manipulation, it was so painful that I couldn't breathe. I almost fainted."

With no improvement or respite from the pain, Nicola, a 46-year-old receptionist in a private members' club, was forced to take a month off work. According to the Office for National Statistics, almost 31 million work days were lost in the UK in 2016 due to musculoskeletal problems — a toll that costs the economy £12.3 billion (about Dh58.2 billion) a year.

Unable to sleep, Nicola went online to research alternative treatments. At 4am, she came across a revolutionary new treatment called The Mayfair Method, which utilises the latest technology to combine spinal decompression with laser therapy, and was devised by lead consultant osteopath Michael Fatica.

Within days, she'd had a consultation and learned, via X-rays, that her recurrent neck problems were due to a misalignment of her spine, causing damage to the discs, which may have been the result of a childhood accident. After her previous treatment experience, she was anxious. "Unlike manipulation, the new treatment was very gentle and not painful at all," she says. "After two sessions, I started to feel much better and now, after 12, I am almost back to normal. I've returned to work and I can sleep again."

Eliminating human error

Fatica created The Mayfair Method in 2015 as an alternative to traditional osteopathic and chiropractic interventions, which he felt were often too brutal or invasive, and inappropriate for some patients. "This method removes the human error aspect and guesswork associated with traditional treatments," he explains. "It's non-invasive, safely targets the affected segments of the spine, is pain-free and risk free and provides long-term pain relief."

Before beginning treatment, Fatica conducts a thorough examination of the patient and takes X-rays to identify the offending injury. He then tailors the treatment plan to the individual's needs and programmes it into a



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computer. The patient lies down on the treatment table and puts on a belt, which is then gently pulled, moving the table until the desired force is reached. Fatica says patients often feel a relaxing stretching sensation and an immediate reduction in pain.

"A lot of back and neck pain is caused by compression of the spine. Many patients are in chronic pain for months or even years, because there is also stiffness in the joints, which stops the healing process. Rather than putting a patient through twisting, horrible movements, my method frees up the joints with vibration to loosen the muscles, and a decompression machine to gently stretch and decompress the spine. I then use a laser to speed up the healing process. Afterwards, patients are given physiotherapy exercises to do at home."

The Mayfair Method is suitable for people with conditions such as whiplash, slipped or herniated discs, and sciatica, but not for those with joint instability in the upper neck, such as in rheumatoid arthritis. Patients generally require between two and 12 sessions. About 40 per cent report mild backache following decompression, but Fatica claims to have treated more than 1,000 patients, with an 85 per cent success rate.

Several independent published studies have shown the benefits of both spinal decompression and laser treatment. In 2016, for exam-

ple, a paper in the *Journal of Physical Therapy Science* showed that spinal decompression is more effective than conventional traction and helps reduce the severity of a herniated disc. And a study published in *Arthritis Research and Therapy* in 2015 showed that laser therapy helps to reduce chronic lower back pain.

What makes The Mayfair Method novel is the synergistic combination of these two distinct treatments. "This is a completely new approach, which significantly improves our ability to provide safe and effective long-term relief from back and neck pain," says Fatica.

"For many patients, the only choice before now has been a lifetime on painkillers or undergoing potentially risky spinal surgery. I hope that in the future I can teach other osteopaths to practice these techniques and that one day the treatment might be available on the NHS. Unfortunately, the equipment is expensive, costing around £50,000."

Too good to be true?

Some may be sceptical about the effectiveness or need for treatments like The Mayfair Method, but it has piqued the curiosity of other pain management professionals. Stephen Makinde, a consultant osteopath at Perfect Balance Clinic in Harley Street, London, says patients are often let down by current medical models of management and so novel approaches are needed: "The use of laser has been widely accepted in many medical communities and has led to some good results. Spinal decompression, too, is becoming more widely accepted, as the technology has progressed. The ability to provide both a mechanical and a physiological approach at the same time as addressing physical issues and tissue changes should aid recovery."

Dr Attam Singh, a consultant in pain medicine at the London Pain Clinic and West Hertfordshire NHS Trust, says, "With increasing research into pain management techniques, laser and decompression therapy are low risk."

"Given its longevity and the conclusion of specific randomised controlled trials, decompression therapy has been shown to be of benefit the reduction in pain intensity, but in particular improvement in mobility, places it comfortably within the kit bag of an osteopath's and chiropractor's treatment arsenal. And the precision of technology now allows the concerned professional to accurately control the pressure applied to reduce the documented possible complication risk."

— *The Daily Telegraph*



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• Smart wearables such as the Apple Watch have gamified their owners' fitness routines

Google's revamped fitness app tracks Move Minutes and Heart Points

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• The tech giant is stepping up its game in battle with Apple for consumer cardiovascular monitoring space

BY HAYLEY TSUKAYAMA

Google's trying to get you off the couch, by simplifying the look of its Fit app to measure just two things: how much you move, and how good that is for your heart.

The company redesigned the app in partnership with the American Heart Association (AHA) and the World Health Organisation (WHO) to reflect both the amount the people move every day and the intensity of that movement. It also looks more like Apple's Activity app.

Google's revamp simplifies its tracking program, which it first launched in 2014 as a competitor to Apple's HealthKit. Apple's three-ring design — which tracks and sets goals for daily movement, exercise and time spent standing — has made the pursuit of closing those rings an obsession for some Apple Watch fans. So far, Google Fit hasn't drawn the same sort of devotion.

Tapping the health and fitness market is a priority for Apple and Google, as both consider movement and health tracking as a key selling point for their wearable devices. It's also proven a key area for partnerships among Google, Apple and the growing industry of health and wellness apps that rely on smartphone sensors to track activity.



• The redesign offers users more ways to meet WHO weekly activity recommendations

The redesign aims to have people "move more and sit less," wrote Margaret Hollendoner, Senior Product Manager of Google Fit, in a company blog post. Unlike the previous design — which would track, for example, walking, running and cycling as separate categories — there are now only two main metrics. People will earn credit for every "move minute" they log, which tracks lower-intensity movement such as walking. Fit rewards more rigorous activities such as cycling,

running or other workouts with something called "Heart Points." A lower-key workout such as a brisk walk generates one point per minute, while an intense workout counts as two.

The company will use your phone or wearable device to figure out when you're on the move. "Google Fit will automatically detect these activities using your phone or watch sensors — like the accelerometer and GPS — to estimate the number of Heart Points you earn," Hollendoner said. People can also manually tell the app if they're doing activities that are more difficult to detect, such as Pilates or gardening. The goal is to achieve an amount of activity equivalent to at least 30 minutes of brisk walking five days a week, in line with AHA and WHO recommendations.

As with the original version of Fit, the app will be able to draw data from other, more popular fitness apps such as the dieting app, MyFitnessPal or running tracker, Strava.

Fit will be available for all Android devices and any watch that has Google's Wear OS, such as those from Fossil, LG and Huawei. Those who use the app already should see the changes roll out from this week.

— Washington Post

GEAR TO LIVE A HEALTHIER LIFE

• From smart glucose monitors to arterial oxygen saturation trackers, **Daanesh Kalyaniwalla** rounds up the best tech to improve your longevity



iHealth Gluco Wireless Smart Glucose Monitoring System

Price Dh323
Available at Souq.com
A great tool for checking your blood glucose level and maintain records of sugar levels, food and even medication on the companion app on your smartphone



Vicks Behind-The-Ear Digital Thermometer

Price Dh157
Available at Mumzworld.com
Great for young children because all you need to do is touch the device behind the ear for a second to receive an accurate body temperature reading



Fitbit Versa Health and Fitness Smartwatch

Price Dh799
Available at Souq.com
A light, easy-to-wear and great smartwatch that collects all the data necessary to maintain a fit lifestyle. The smartwatch also comes with apps for yoga, heart rate and exercise tracking, breathing and a lot more



Bewell Connect MyTensio Upper Arm Blood Pressure Monitor

Price Dh227
Available at Pluginsme.com
Simply connect to the companion Bewell app to check your blood pressure wirelessly



Beurer PO 30 Pulse Oximeter Monitor

Price Dh317
Available at Souq.com
The Pulse Oximeter by Beurer comes in handy to determine your arterial oxygen saturation (SpO2) and heart rate (pulse frequency). Use the small and handy device for simple and completely pain-free measurement

Xiaomi Mi Body Fat Smart Scale

Price Dh120
Available at Noon.com
Another simple-to-use device that connects to an app and enhances your fitness and body goals. Track your changes in weight and BMI daily

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FACEBOOK PARTNERS WITH NYU TO MAKE MRI SCANS TEN TIMES FASTER

- The research project uses AI to enhance the diagnostic tool's efficiency

Facebook has forged a partnership with the New York University (NYU) on a research project that aims to make MRI scans up to ten times faster by leveraging the power of artificial intelligence (AI).

If the project, called fast-MRI, yields the desired results, it will make this key diagnostic tool available to more people, Facebook said in a recent blog post.

MRI scanners provide doctors and patients with images that typically show a greater level of detail related to soft tissues — such as organs and blood vessels — than is captured

by other forms of medical imaging.

But they are relatively slow, taking anywhere from 15 minutes to over an hour, compared with less than a second or up to a minute, respectively, for X-ray and CT scans.

These long scan times can make MRI machines challenging for young children, as well as for people who are claustrophobic or for whom lying down is painful. Additionally, there are MRI shortages in many rural areas and in countries with limited access, resulting in long scheduling backlogs. Sufficiently accelerated

MRI devices could also reduce the amount of time patients must hold their breath during imaging of the heart, liver or other organs in the abdomen and torso.

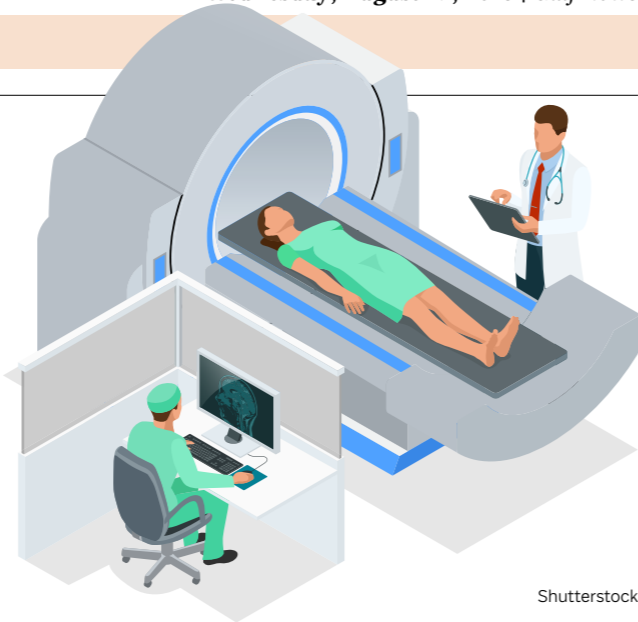
Increased speed could let MRI machines fill the role of X-ray and CT machines for some applications, allowing patients to avoid the ionising radiation associated with those scans. The fastMRI project will initially focus on changing how MRI machines operate. Currently, scanners work by gathering raw numerical data in a series of sequential views and turning the data into

cross-sectional images of internal body structures that doctors then use to evaluate a patient's health.

The larger the data set to be gathered, the longer the scan takes. Using AI, it may be possible to capture less data and therefore scan faster, while preserving or even enhancing the rich information content. The key is to train artificial neural networks to recognise the underlying structure of the images in order

to fill in views omitted from the accelerated scan, Facebook said.

The Facebook Artificial Intelligence Research group believes that the project's long-term impact could extend to other medical imaging applications, such as CT scans. Advanced image reconstruction might enable ultra-low-dose CT scans suitable for vulnerable populations, such as paediatric patients. — IANS



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Wearable robot steps in

- The world's first human-centric wearable robot to be unveiled by LG at IFA 2018 in Berlin this Friday

Aiming to become a leading developer of service robots, South Korea-based LG Electronics on Thursday said it will unveil its first "human-centric" wearable robot at the upcoming IFA 2018 in Berlin.

CLOi SuitBot — the company's first human-centric robot designed for industry and healthcare — supports and enhances a user's legs to allow for more mobility and lower limb strength, unlike LG's previously announced robots such as Guide Robot, Cleaning Robot and Serving Robot.

The robot does not navigate airport lounges and hotel hallways by itself, the company said in a statement.

The wearable robot was designed in collaboration with a start-up named SG ROBOTICS, which has been studying how wearable robots can improve the quality of life.

"It is just one example of a wide range of revolutionary AI products designed to interact with users to dramatically elevate user convenience and create new opportunities to advance our robotics initiative into a next-gen growth engine," Song Dae-hyun, President of LG's Home Appliance and Air Solution Company, said in a statement.

This wearable robot can connect to the firm's other service robots, which were announced at



- With its naturally rotating joints, the robot will have applications in both industry and healthcare

CES 2018, to become part of a smart working network to deliver information and tools.

"A comfortable fit and naturally rotating joints allow the CLOi SuitBot to move in a more relaxed and natural way to enhance the lower body while walking, standing or working.

"Its sandal-type shoes and automatic adjustment feature allow the wearer to get in and out

of the suit more easily, differentiating LG CLOi SuitBot from many other exoskeletons," the company added.

CLOi service robots are being developed as part of the company's larger artificial intelligence (AI) initiatives for the commercial sector.

— IANS

APPS KEEP HUNGER AND DISEASE AT BAY IN AFRICA

- Young coders have been busy finding healthcare solutions at the first hackathon that spans the continent, conducted by the UN



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BY THIN LEI WIN

From an app to diagnose disease on Zambian farms to Tinder-style match-making for Senegalese landowners and young farmers, young coders have been finding solutions to hunger in the first Africa-wide hackathon on the issue.

Eight teams competed in the hackathon, organised by the UN Food and Agriculture Organisation (FAO) and a Rwandan trade organisation in the country's capital Kigali this week. Experts say keeping young people in farming is key to alleviating hunger in Africa, which has 65 per cent of the world's uncultivated arable land, but spends \$35 billion (Dh128.5 billion) a year on importing food for its growing population.

"In our families, agriculture is no longer a good business — they don't get the return," says Rwandan Ndayisaba Wilson, 24, whose team proposed a \$400 solar-powered device that can optimise water and fertiliser use.

"We believe that if the technology is good and farmers can see the benefits, they will adopt it." Among the proposed solutions were an app that links aspiring farmers with landowners in Senegal and a Nigerian mobile platform that uses blockchain to help farmers demonstrate their credit-worthiness to lenders.

The winner was AgriPredict, an app already operating in Zambia that can help farmers identify diseases and pests — including the voracious fall armyworm, which eats crops and has wreaked havoc in much of sub-Saharan Africa.



Farmers can access it directly from their phones or via Facebook. CEO Mwilu Kangwa, 31, said the initiative came out of the twin disasters that hit Zambian farmers in 2016 — tuta absoluta, a tomato disease, and the fall armyworm. "We noticed there were no tools

whatsoever that will help farmers mitigate or prevent or even counter these diseases so we came up with this idea of creating a software to help farmers," he told the Thomson Reuters Foundation.

As winners, the Zambian team will receive coaching from the FAO to refine their product and an opportunity to meet potential funders and partners. "What they brought was a technically sound solution... and the ability to convey the message to young people by using, for example, Facebook," said Henry van Burgsteden, IT officer for digital innovation at the FAO and one of the judges.

The hackathon was held during a conference in Kigali on ways to attract more young people to agriculture through information and communication technology tools.

— Thomson Reuters Foundation

SNÖ DENTAL CLINICS

Dental with a difference

- Walking through the doors of Snö Dental clinics in Abu Dhabi's Al Nahyan Camp and Yas Mall, you'd be forgiven for thinking you were in Scandinavia

A cool, minimalist surrounding that belies the heat just outside, Snö Dental Clinics is not a typical dental practice.

The foundation of both the building and the clinical practice has been taken directly from Scandinavia, built on an ingrained ethos of providing all patients with the best, holistic and minimally invasive dental care, without over-treatment.

The team of world-class, highly trained specialists bring their experience from Europe, the US, the UK, South Africa and Australia to provide patients with individual, tailored dental healthcare plans.

Dr Per Rehnberg, CEO of Snö Dental Clinics, says a key point of focus at Snö Dental is the utilisation of state-of-the-art technology that allows the most comprehensive diagnosis and documentation.

"In developing a brand-new dental healthcare service, our focus was to ensure technology was at the forefront of our clinic so our patients receive a world-class standard of dental care. Technological advancements in dentistry in recent years have brought in an era of pain-free dentistry, from how an anaesthetic is administered, to how impressions are taken of a patient's teeth and gums.

"Even the patient's dental chair utilises modern technology with tempered cushions and a highly effective water system that makes the treatment much more hygienic. Advancements have also enabled digital x-rays that emit much less radiation. Snö Dental clinics use 3D X-Rays, which can be merged with 3D scans to demonstrate to patients the treatment plans, aesthetic work and orthodontic treatment.

Snö Dental's main branch at Al Nahyan Camp houses a purpose-built digital laboratory that utilises 3D software to create crown, veneers, bridges and implants, all on-site.

"Our digital laboratory assists in dramatically reducing the time patients have to wait to complete their treatment," says Dr Rehnberg. "Traditionally, elements such as implants and crowns would need to be sent off-site for development and then come back for the patient fitting – this is



● The 3Shape photographic 3D scanner provides a full-colour scan of the patient's whole mouth in a matter of minutes. Inset: Dr Per Rehnberg, CEO, Snö Dental Clinics



● The four-storey main branch at Al Nahyan Camp also includes a dedicated children's floor with toys and a PlayStation 4

both costly and time consuming. Our laboratory is equipped with a cutting-edge 3D digital printer and scanner, which allows us to create models that are 100 per cent accurate for each patient, all on the same day, reducing the need for multiple appointments."

The 3Shape photographic 3D scanner provides a scan of the whole mouth in full colour in a matter of minutes. This technology provides the most comprehen-

sive diagnosis and documentation, which can help patients recreate their own anatomy, should future changes occur to their oral cavity. The 3D images prove a useful education tool for the Snö Dental team, as they can show patients clearly where the issues are and what treatment is required, as well as demonstrating correct brushing and flossing techniques.

With a minimally invasive, patient-first approach to dental care,

Snö utilises The Wand, a computerised anaesthetic injection that is completely pain-free.

"We understand the association for many patients of dentists and pain," explains Dr Rehnberg. "At Snö, we believe in a superior, gentle, trusted model that places the patient first. The Wand is another example of technology and clinical care working for the betterment of patients.

At Snö Dental Clinics the tech focus doesn't end with the clinical tools. Knowing that children may be apprehensive about a trip to the dentist, a children's floor is equipped with all the traditional colouring books and wooden toys, alongside a PlayStation 4 racing car set.

"It is certainly a favourite with our paediatric patients, they come for a race on the PlayStation and get a dental check-up while they are there. They are learning about the importance of dental health, yet still having fun."

Snö Dental practice provides a full range of services, from basic care to the most modern treatments. They include preventive cleanings and treatments, general dentistry, restoration, exams, crown and bridge, implants and cosmetic dentistry. The practice also provides dental surgery and emergency care.

DR SULAIMAN AL HABIB HOSPITAL

Injecting quality into healthcare

- Dr Taha K. Al Hazarmerdi, General Manager and Consultant Colorectal Surgeon at Dr Sulaiman Al Habib Hospital, explains how its cutting-edge tech improves patient outcomes

BY RIAZ NAQVI
Staff Writer

How have you integrated rapidly developing technologies such as robotics into your diagnostic and treatment services?

Dr Sulaiman Al Habib Hospital is well known for its use of cutting-edge technology, aiming to minimise the risk on the patients, increase the patient safety margin and the efficiency of care provided to patients, both in the diagnostic and curative fields. For example, we are introducing revolutionary CT scans where we can scan the whole body in less than one minute. We've also introduced a live MRI model, where the patient will not get anxious when they are in the MRI loop – they can listen to music and enjoy some views of nature.

As far as robotic surgery goes, we are now doing knee replacements, as well as neurology. We are now the first hospital where all hospitals in the group are connected by a tele-ICU. We also have tele-NQ and tele-radiology systems. All the hospitals and doctors can talk to each other and if there is any debate or uncertain diagnosis, it can be shared across the group with all radiologists for their input.

How are your physicians using data and analytics for actionable insights in ways that weren't possible a decade ago?

We have a well-developed system called Vida. It's an in-house-built system that provides doctors with timely reports. It can also generate more than 200 reports, analyse and link the performance of the doctors, the commendation level as well as financial performance. You can use the facility to get



● Dr Taha K. Al Hazarmerdi, Dr Sulaiman Al Habib Hospital

approvals from payers and use the same system in OR booking, which minimises the time doctors spend in making a proper booking for their cases. As management, we receive reports on a daily basis. If a patient leaves the hospital or clinic, they immediately receive a message with five pages to fill out about their experience. This daily system-generated report about the patient experience feedback at all levels is helping management drive the care of patients towards the best level to meet their expectation.

What sort of challenges and opportunities exist when it comes to retraining of hospital personnel to equip them with the skills to operate new technologies in the workplace?

The healthcare market dynamic, especially for doctors and nurses, has become more competitive in Dubai. Retaining staff is a challenge in itself, so we developed a long-term strategy where we are

building our staff through an open career ladder path, as well as continuous education and training, which will help the staff build themselves and climb the ladder over time to reach better positions.

How have smartphones changed the communication flow between patient and doctor, and doctor and specialist?

We have mobile apps for patients and for doctors. For patients, the app contains all the information they want. They can book appointments, see lab results, talk to their doctor through messages, retrieve or request medical reports, and renew prescriptions through the app. The doctors' app lets them access patient records from home, managing them accordingly and providing advice to junior and residency doctors when needed from anywhere in the world. I'm proud to say we are the first smart hospital in the region. Our rooms are managed in a smart

to a normal life. This is accredited by DHCC.

How have data and enhanced patient insights placed a stronger emphasis on disease prevention?

The trend is on prevention more than treatment. We are monitoring patients by diagnosis. The top diagnoses in the hospital are respiratory and circulatory diseases, which are really helped by initiating campaigns with different partners in the community to raise awareness about the management of blood pressure, to encourage healthy lifestyles and to promote anti-smoking environments. This is driven by data we take in on a quarterly and annual basis about the disease prevalence in our hospitals.

What are your thoughts on so-called pay-for-outcome schemes, which are growing in popularity in various worldwide healthcare markets?

I will not call it pay for quality. This means that for all providers – whether private or government – the payers should classify hospitals into many levels according to clinical KPIs. For example, taking the mortality rate, infection rate, pain management level, number of complications per specialty and trying to see which hospital provides safe care, and the pay will be accordingly. The system should take into account that the outcome of care for each hospital will dictate the prices the payer will pay. Payers should play an instrumental role in this to encourage high-quality hospitals by driving patients to those hospitals in order to increase the cure rate and, in the long run, decrease costs for insurance companies.

INTERSYSTEMS

Introducing TrakCare as a service to meet the needs of a changing regional healthcare market



TrakCare as a service, a new private cloud-hosted electronic medical record (EMR) service offered by InterSystems, is now available to UAE and Middle East hospitals. Integrating administrative, clinical and financial health data into a unified system, TrakCare as a service follows a pay-per-usage (PPU) model and is set to enable hospitals and clinics to achieve their clinical and financial objectives without major capital expenditures.

Most private healthcare organisations are looking at adopting the latest healthcare IT systems in order to provide safer, faster and more efficient healthcare services. However, this could require a massive upgrade of IT infrastructure, huge upfront capital expenditure and sizeable operating expenses. Investing in a cloud-hosted service mitigates the need to spend on IT infrastructure by providing PPU access to hardware, computing resources, applications and services. This dramatically lowers the cost and simplifies the adoption and ongoing ownership of technology.

In order to address the region's market needs while incorporating global best practices, InterSystems introduced TrakCare as a service to help hospitals benefit from a turnkey EMR solution that combines the administrative, clinical and revenue cycle management capabilities of InterSystems TrakCare, the world's most proven EMR system; a flexible PPU model that allows healthcare providers to expand their business without the burden of a large upfront capital investment; and a focus on delivering quality patient care profitably, while entrusting InterSystems with their EMR landscape.

With TrakCare, clinicians and administrators can improve safety and outcomes, control costs by eliminating duplicate tests, reduce medication errors, expedite billing, maximise resource utilisation, coordinate care across care settings and achieve strategic initiatives. TrakCare's design emphasises usability and localised configurations that reduce complexity and help care providers adopt the system and improve care quickly.

TrakCare is built on the InterSystems health informatics platform and provides exceptional interoperability for the sharing of health information beyond the enterprise (connecting to other regions and services) and within it. Connecting, sharing and taking needed action are easier when all parts of the solution are provided

on the same core technology and built from the ground up to be patient-centric and interoperable.

TrakCare's advanced interoperability also enables hospitals to comply with the Network and Analysis Backbone for Integrated Dubai Health (Nabidh) initiative. The Dubai Health Authority project aims to implement a regional Health Information Exchange in the emirate by making patient information better, timelier and more accessible within the ecosystem for improved treatment and health outcomes.

InterSystems TrakCare EMR system is trusted by leading healthcare providers in more than 25 countries and consistently receives top customer satisfaction scores.

Whether you manage one hospital or a nationwide network, TrakCare empowers the delivery of seamless patient care while improving safety, efficiency and patient experiences. For more information, contact the InterSystems Middle East team at MEMarketing@interSystems.com



● Michel Amous, Managing Director, InterSystems