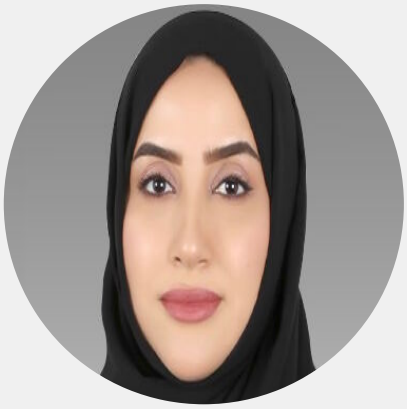
Noura Al Ghaithi – Undersecretary of the Department of Health Abu Dhabi



With our infrastructure and ecosystem as our foundation, Abu Dhabi is primed to become a true healthcare life science capital

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Speaking exclusively to PharmaBoardroom, H.E. Dr Noura Al Ghaithi, Undersecretary of the Department of Health Abu Dhabi outlines Abu Dhabi's rapid progression towards becoming a global life science hub, how the DoH is drawing on international collaborations to help solve the most burning healthcare issues, as well as the transformative impact of ongoing data and genome sequencing projects.

Abu Dhabi is aiming to position itself as a globally relevant life science hub, with advanced and investor-friendly healthcare infrastructure as well as a supportive and resilient ecosystem for start-ups, researchers, and innovators. What progress towards this lofty ambition has been made so far, and what are the most important future milestones that the Emirate is building towards?

As part of our ambitious strategy to future-proof global public health, we have partnered with key experts in research and pharmaceuticals to provide treatments and breakthrough solutions across the whole value chain, from molecule to marketing, while exploring the resilience and sustainability of the healthcare sector worldwide. Most recently, at the BIO International Convention 2023, the Department of Health – Abu Dhabi (DoH) signed agreements with M42 and AbbVie Biopharmaceutical, and Mass General Brigham’s International Centre for Genetic Disease. Both

partnerships focus on advancing the field of genomics and precision medicine, with the aim of furthering knowledge and improving patient access to innovative approaches in healthcare.

In addition to partnerships, we have also established several programmes and initiatives, all aimed at developing a thriving ecosystem for life sciences. For example, our Centres of Excellence programme allows licensed healthcare facilities to be recognised for achieving the best patient outcomes through exceptional expertise and multidisciplinary resources. So far, we have established Centres of Excellence in three specialities: hematopoietic stem cell transplantation, complex care and stroke.

The Research and Innovation Centre (RIC) is another initiative, which aims to develop and support research through a vast array of services and networks. Since its launch, RIC has helped to review 2564 research proposals, publish 1261 papers, and authorise 73 facilities to carry out human research.

We have also worked hard to ensure our regulatory framework fosters innovation and progress, whilst maintaining exceptional standards of quality and safety. This has included streamlining the approval process for clinical trials. It takes no longer than 28 days between trial submission and approval which has led us to see a rapid expansion in clinical trials, with a staggering increase in the number of clinical trials conducted locally between 2021 and 2022 – an increase year-on-year of 484 percent.

As a result of these partnerships, programmes and our advanced infrastructure, Abu Dhabi saw a 40 percent growth in the number of incubated start-ups, welcoming 86 new companies into our health ecosystem in 2022. In terms of future milestones, I am excited to see us continue building on this success by advancing our existing partnerships, as well as establishing new ones, and expanding the scope of our initiatives.

No one country, region or actor can contribute to innovative breakthroughs in healthcare alone – it takes a village. How are stakeholders within Abu Dhabi collaborating with counterparts across the UAE, the region, and the globe to drive change?

Acting as a universal partner and central platform of our local health ecosystem, Abu Dhabi is continuing to strengthen bilateral relations with governments and organisations around the world to enhance medical and translational research and improve healthcare outcomes.

In particular, the Emirate has long enjoyed strong partnerships across the healthcare sector with the USA, as Abu Dhabi is home to many leading American healthcare, educational and industrial institutions such as Cleveland Clinic, Moorfields Eye Hospital, Mayo Clinic, Honeywell, and New York University. Earlier this year, DoH led a high-profile Abu Dhabi delegation visiting the United States and participated in the BIO International Convention 2023, which aimed to strengthen existing ties and initiate new ones – especially in healthcare – in order to help enhance medical research and health solutions that can benefit the global community. This involved meetings between the Department's senior executives and representatives from institutions such as the Food and Drug Administration, Centres for Disease Control & Prevention, National Institutes of Health, and Boston Children's Hospital.

In terms of becoming a global healthcare and medical tourism destination, Abu Dhabi and the UAE more broadly will struggle to compete with countries like India and Turkey on price, and conversely with the likes of the USA and Western Europe on quality and reputation. How do you see the Emirate's global positioning and unique selling points in this field?

Abu Dhabi's infrastructure is particularly beneficial to healthcare research, investment, and implementation. Our strategic location allows us to connect with one-third of the world within a four-hour flight, reaching more than 3.2 billion people, and we were the first capital city in the world to have 100 percent fibre internet connections in every home. From safety, to being the region's top city for ease of doing business, and a highly diverse population in addition to robust and deep population health data – we have a city that is teeming with opportunity.

Our Centres of Excellence and Abu Dhabi Healthcare Quality Index (known as Muashir) ensure that the care we provide is of exceptional quality, with the framework promoting sustainability, effectiveness of care, transparency, accountability, and enhancing patient experience. All healthcare facilities that join the medical tourism network are assessed for eligibility to ensure they meet the requirements of this framework. This means that our healthcare network can provide high quality services and unique medical offerings that distinguish it from other healthcare systems. The medical offerings at approved facilities include advanced heart surgeries, organ transplants, infertility treatments, joint surgeries, and medical check-ups, rather than focussing on aesthetic procedures that other regions are known for.

To further strengthen the Emirates' position as a leading destination for medical tourism, in May 2023, DoH signed an agreement with The Department of Culture and Tourism – Abu Dhabi. The agreement will see the creation of specialised medical tourism programmes to address the needs of international and domestic markets. This will ensure patients visiting the Emirate will have access to the best services available.

Genetic diseases are a particular cause for concern in the Middle East region, and research conducted in its leading hubs – such as Abu Dhabi – could be crucial to finding the personalised treatments of tomorrow. Can you share a few words on the progress and goals of the Emirati genome programme?

The Emirati Genome Programme is now the largest programme of its kind, with over 430,000 genome samples having been sequenced. The programme invites UAE citizens to voluntarily take part in the study by providing a blood sample, which is then sequenced and analysed with the help of artificial intelligence.

The potential value of this data set is vast and could offer the opportunity to understand complex diseases better. This could include identifying new disease pathways, suggesting new therapeutic targets, evaluating adverse drug effects, and identifying populations for which a drug would be most effective.

Ultimately the aim of this programme is to transform health and well-being with genomics. Not only will the data from the project help to provide local healthcare practitioners with high quality information to deliver personalised patient programmes, but through our international partnerships, we hope to contribute to global research and extend the reach of these benefits to the wider population.

What is the significance of international partnerships such as those between M42 and AbbVie, and Mass General Brigham's iCGD?

At the BIO International Convention in June 2023, DoH, M42 and AbbVie Biopharmaceutical signed a Memorandum of Understanding to advance precision medicine and genomics in the diagnosis and treatment of multiple myeloma and non-small cell lung cancer. The partnership aims to drive research to advise policy changes and implementation. This will enable broader patient access to innovative approaches in healthcare.

Alongside this partnership, DoH also signed a Declaration of Understanding with Mass General Brigham's International Centre for Genetic Disease (iCGD). This agreement will utilise data from the Emirati Genome Programme and combine Abu Dhabi's cutting-edge genomic capabilities with iCGD's world-class clinicians and scientists. Alongside our partners we aim to advance knowledge of genomic medicine in four specific disease areas: metabolic disease, oncology, cardiology, and neurology – all of which pose significant challenges to global healthcare.

The significance of these partnerships is far reaching. The collaborations will support research and clinical trials to ultimately develop innovative solutions for local, regional, and global health needs.

Data is the new currency of healthcare in terms of everything from better evaluating the efficacy, safety, and cost-efficiency of medicines; to driving the drug discovery process to better meet patient needs; and bolstering diagnosis and treatment outcomes within and outside hospital settings. How is Abu Dhabi preparing for the data-driven future of healthcare?

One of the Department of Health's key priorities is establishing a globally leading digital healthcare ecosystem. This involves bringing the latest technological advancements to streamline patient journey and improve overall outcomes. To achieve this ambition, we have partnered with organisations both in the UAE and internationally.

In 2022, the Abu Dhabi Department of Health partnered with Pure Health, the largest integrated healthcare platform in the UAE, and G42 Healthcare, an Abu Dhabi-based leading health tech company. These partnerships aim to establish a Centre of Digital Health to develop pioneering data and digital services platforms in the Emirate.

Abu Dhabi has also anticipated a data-driven future by establishing the Malaffi programme. This initiative safely and securely stores patients' medical records, making them readily accessible when needed. This vast data bank also means that the Emirate is well positioned to make use of AI in patient care.

How can/is the Emirate acting as a testbed for innovative new solutions, given its high level of infrastructure, relatively small population, and abundant financial resources?

Abu Dhabi has already demonstrated its capabilities for innovative solutions in healthcare during the COVID-19 pandemic, which earned it the title of ‘World’s Most Pandemic-resilient City’ by the Deep Knowledge Analytics report in 2021. As part of its response, Abu Dhabi leveraged agile, data-driven, science-based, and world-leading policies and interventions that resulted in one of the lowest mortality rate and infection per capita rate globally.

Since then, Abu Dhabi has continued to build on this success and with many initiatives in place to promote innovation, as well as large investments into the infrastructure and healthcare ecosystem, the Emirate has already seen a large uptake in new solutions across the sector. For example, I am pleased to share that the Department of Health recently announced the remarkable milestone of completing 100 robotically assisted surgeries, harnessing advanced technology to enable precise and minimally invasive procedures, revolutionising medicine, and enhancing patient care.

Another achievement of note was the start of Phase 3 clinical trials for mitapivat in the treatment of thalassemia – a group of genetic blood disorders. These trials are further testament to Abu Dhabi’s growing role and abilities in developing medicines and conducting clinical trials, all with the support of several partners across the US, Europe, and Asia.

Looking ahead, I have no doubt that Abu Dhabi will see more milestones like this. One of the current areas of focus is genomic medicine, which is heavily supported by the Emirati Genome Programme and global partnerships. I’m looking forward to seeing the innovative solutions and applications that will come from research in this field.

How are data integration efforts such as the Malaffi Health platform progressing?

Malaffi is a key component of the digital transformation of the healthcare system in Abu Dhabi. Malaffi seeks to improve the quality of care and patient outcomes and to ensure the health and wellbeing of all members of the community, thus contributing to positioning Abu Dhabi as a world-class destination for healthcare.

By connecting 1.7 billion unique clinical records from 7.9 million patients in Abu Dhabi, every medical interaction a person has is now collated in their personal file. This means all their medical history is safely and securely stored and instantly accessible when needed, from routine check-ups, consultations or emergency treatment, all the way to laboratory tests or radiology images.

This data is being integrated across healthcare facilities, of which 2,734 have already been connected. This includes 100 percent of Abu Dhabi’s hospitals – an achievement I am particularly

proud of.

What closing statements do you have for our international audience?

Abu Dhabi has marked its position as the Middle East and North Africa region’s leading healthcare destination for life sciences and innovation. In our mission to become the home of advanced health care, we are hoping to create a healthier world by leading the intelligence revolution of the health and life science industry. With our infrastructure and ecosystem as our foundation, Abu Dhabi is primed to become a true healthcare life science capital. In only a short few years, we have made enormous progress, and I look forward to continuing to build on this further over the coming years.

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