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Establishing a Countrywide Framework for Academic Health Centers and Systems

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PERSPECTIVE

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What does it take to create and sustain a country-wide framework for academic health centers? The commentaries in this issue offer three unique perspectives, with approaches that bring together at scale resources across the tripartite mission to achieve an impact that is greater than the sum of its parts.

Each model is noteworthy in its own way and somewhat representative of its country's culture and size. China has a population of over one and a quarter billion people, Indonesia is the fourth largest country in the world with over a quarter of a billion, while Qatar at the other end of the scale has just a few million. A nation's wealth also impacts its approach. Indonesia is low-middle income; Qatar is at the absolute top of the three in terms of purchasing power parity per capita; and China is the standout performer, with a 6-10 percent decadal GDP growth in a technologically advanced society in the large cities.

Dr. Qimin Zhan of Peking University describes an alliance of 11 top-class medical schools as a platform for collaboration, best practice, and policy think tanking—all in pursuit of further development of the discipline of medicine. Qatar, a foundation member of AAHCI, has really been a pathfinder over the last 12 years. Dr. Hanan Al-Kuwari describes their single national academic health system—which works well with the size of the population—and reflects on the importance of system stability, benchmarking, and always positioning the patient at the very center. Leaders in Indonesia faced significant challenges with separately-owned universities, hospitals, and primary healthcare. In the face of overwhelming public demand for care in their health system, two elements of the tripartite mission—research and education—have historically been relegated to second or third priority. Dr. Ratna Sitompul describes a strong and persistent leadership, despite formidable challenges, to create five integrated academic health systems, and then to link them in an impressive and effective network. Their model of "functional integration" has been recognized at the highest levels of the Indonesian government as having real value for the country.

I was struck by the qualities common to each of these approaches. Strong guidance from an accomplished leader is a necessary but not sufficient condition; each of these leaders also practiced selfless leadership, with a focus on nurturing collaboration and teamwork. Another common thread is the focus on persistently making the case to government about the return on investment that a network or alliance can deliver for the health of the nation.

My own country, Australia, has approached this through the Australian Health Research Alliance (AHRA), which includes all 10 accredited academic health centers, covering some 95 percent of the nation's academic research teams and 78 percent of acute healthcare services. Australia came late to the academic health science movement, and we've only had accredited centers since 2015. One specific challenge addressed through the AHRA has been that, while as a nation we do brilliantly on discovery research, we have lagged in translation and implementation. Guided by the mantra "one voice for better health through research," the AHRA has focused on accelerating the pace and scale of research translation.

This alliance has become a platform for national systems level initiatives, in which each of the centers or systems plays a role and contributes a separate component. The AHRA is resourced as a body by the government, eliminating competition among institutions for funding. Collaboration, rather than competition, has been key to making AHRA a success story.

These observations come in the early days of the COVID-19 pandemic. Academic health science centers are obviously pivotal in that fight, with the adaptive capacity to meet the myriad challenges on the ground. They are typically geared up for disaster preparedness. They can prioritize and coordinate healthcare nationally. Inherently, they take a robust approach to public health. Their focus on equity of health outcomes, desire to provide healthcare for the whole population, and view of healthcare as a civic rather than individual responsibility can all be vital tools in helping nations address the pandemic's challenges. Finally—as the examples in this issue attest—academic health science centers offer the kind of leadership in healthcare that will prove an essential tool in fighting the coronavirus.

H.E. Hanan Al-Kuwari, PhD

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When we launched in 2011 the world's first nationwide academic health system it made sense; and it still makes sense today in 2020. The transformations it has achieved and the future potential it holds in terms of impact on the health of our population, agility of our system to innovate and respond to challenges, and the sustainability of our healthcare system means that we are as committed to the pursuit of our academic health system mission as ever before.

In sharing insights based on our experience, I do so humbly, for in developing our academic system I, myself, took the advice of many prominent members of the Association of Academic Health Centers International and others, who were kind enough to invest their time and friendship by sharing their experiences and advice. I hope you find these insights useful to your academic health system journey, whether it is a nationwide multi-partners system like ours or a more traditional system.

First, academic health systems are complex. Disease profiles can change rapidly (take for example the outbreak of COVID-19), disruptive innovations can change the pathways of care (for example, percutaneous interventions replacing surgery in cardiovascular disease), and the nature of the evidence gap between research and current practice also remains in flux. The nature of our tripartite mission of health, education, and research requires stability and continuity. This stands in contrast to our volatile context with its local and global economic realities, the rapid pace of medical and technological innovations, and the evolving nature of patient expectations and behaviors. The need to ensure stability and continuity while continuously re-examining our systems, policies, and protocols means that leadership of academic health systems is complex and challenging.

Because of the above, there is no one solution to designing an academic health system. As I learned early on when exploring how to design our academic health system, 'if you have seen one academic system, you have seen one'. Take the time to design the system that works for your aspirations, your context, your partners, your stakeholders, and your business model—and continuously re-examine and finetune it.

Second, integration is key. Shaping the integration mechanisms together with your leaders is important, for each part of the system requires a different solution. Health and education systems are renowned for having cultures that are introverted and that foster working in silos. In that way, our system was and is no different to others. We created a culture of integration to align academic and clinical strategy to better advance clinical care, education, and research. Clinicians, scientists, and educators were given the tools to select projects and partners that could solve local needs. As a result of our partnership, medicine is the highest cited discipline in Qatar with much of that research being internationally leading. Similarly, by bringing primary and community-based care closer to specialist and tertiary care we are now able to offer our population care that is more seamless, safer, and more cost effective.

Third, excellence is a journey. Set goals that require system-wide efforts and measure outcomes. Our health outcomes are amongst the best in the world, life expectancy is high, and in terms of quality and access we are ranked highest in the region and in the top quarter of the world by the World Health Organization. Our health system's performance on most indicators are excellent, and our graduates are first class; but we know excellence is a moving target. To ensure the continuation of the best quality care and research, we need to harness the full knowledge and experience of our full academic health system so that it has relevance for all stakeholders. We keep aware of the best global solutions and maintain our strong ties and collaborations with local and international partners.

Finally, keep patients and their wellbeing at the center of your system. The conflicting pressures of teaching, clinical care, human and financial resources management, as well as stakeholder management means that leaders can lose sight of our primary reason for existing patient care. I strongly believe that initiatives around patient safety and harm elimination are important to ensure that patient well-being and safety remain at the forefront of the board and leadership agenda. Ultimately having a universal culture of improvement embedded in the heart of your system will offer a thriving health center that can direct better research, wellbeing, and health for current and future generations of your populations.

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Developed countries have demonstrated excellent healthcare through synergistic integration of education, research, and patient care by medical schools and teaching hospitals via academic health centers. After Indonesia implemented universal health coverage, there was a spike in the number of patients, variation, and severity of diseases. Overloaded capacity of teaching hospitals—due to a rigid referral system, efficiency, and redistribution of patients—distracted them from the education and research mission.

Faculty of Medicine Universitas Indonesia (FMUI) and Cipto Mangunkusumo General Hospital (RSCM), as its national referral teaching hospital, voluntarily developed strategic planning sharing key performance indicators and a commitment to strengthen primary health centers to empower healthcare in the province. This was followed by other universities, starting with Hasanuddin University.

Functional integration of FMUI and RSCM resulted in a multitude of innovations and centers of excellence, such as liver and kidney transplantation, eye, stem cell, and integrated cardiac centers. We achieved a 92.7 percent passing rate in national competency medical examinations; resident-in-training supervision improved significantly in 30 speciality programs; and 30 percent of residents possessed competency above national standards, with 95 percent of residency programs obtaining highest accreditation scores. There is increased international collaboration and publications in medical research, and RSCM was the first teaching hospital in Indonesia that passed Joint Commission International (JCI) accreditation.

Functional integration of FMUI-RSCM proved to be the most essential step for the academic health system (AHS), a tripartite collaboration between the faculty of medicine, teaching hospital, and local government. AHS-UI decreased by 60-70 percent referral cases from primary health centers to hospitals. The AHS resolved many problems; however, it faced obstacles due to separate ownership of the medical schools, teaching hospitals, and regional healthcare facilities.

The government valued the potential benefits and challenges of academic health systems and that alignment of education, research, and patient care could contribute to excellent healthcare in the UHC. Five medical schools, together with teaching hospitals and local governments, were appointed as national pilot projects exhibiting similar integration systems to academic health systems, and forming a national constitution on medical education. Subsequent consulting and supervision by the Aligned Institution Mission (AIM) program of AAHCI in 2016 offered a better understanding of methods to establish resilient integration and overcome problems.

The five academic health systems are managed by a steering committee consisting of the Ministry of Research Technology and Higher Education and the Ministry of Health. The committee guides the integration steps, ensures academic health system incorporation in university strategic planning, facilitates collaboration and discussion amongst AHS components, and provides periodic evaluation. Each AHS has the autonomy to set their vision and mission, strategic plans, programs, and outcomes based on needs and resources. It is imperative for each AHS, in collaboration with the local government, to address health-related issues in their regions in order to improve the quality of health and continuous care. As a result of experiences by the five academic health systems, adjustments and regulations were issued by Ministry of Research Technology and Higher Education for universities and the Ministry of Health for teaching hospitals to ensure smooth collaboration. To date, AHS-Universitas Gajah Mada has completed the AIM Program, and all five teaching hospitals have received JCI accreditation.

Academic health system implementation resolved some problems, but some others remain. Without a higher decree—i.e., a presidential act—sustainability is jeopardized. Indonesia learned that, by aligning education, research and healthcare through an academic health system, each institution may achieve their missions and bring benefits to the community. Some regulations can be hindering, and policies still need to be drafted to achieve excellent care. Implementing the AHS model for the remaining teaching and regional referral hospitals is the next exciting period for Indonesia.

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Qimin Zhan, MD

Executive Vice President, Peking University President

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In 2015, the Chinese government launched a national plan to bring out the full potential of higher education. The plan, known as the Double First-Class Initiative, aims to create a number of world-class universities and disciplines by the end of 2050. To deliver this plan, in 2017, the Ministry of Education, the Ministry of Finance, and the National Development and Reform Commission jointly released a list of 42 universities and 465 disciplines slated for additional support.

As a university at the top of the list, Peking University has been firmly committed to turning the plan into reality. Taking the lead in the establishment of a Chinese Medical School Alliance for "Double First-Class" implementation (hereafter referred to as the Alliance) is part of that effort.

In 2018, supported by the Ministry of Education, the Alliance was formally launched in Beijing with its Secretariat at the Peking University Health Science Center. The first president of the Alliance is Professor Qimin Zhan, Executive Vice President of Peking University and President of Peking University Health Science Center. The founding members of the Alliance include Peking University, Peking Union Medical College, Fudan University, Shanghai Jiao Tong University, Zhejiang University, Wuhan University, Huazhong University of Science and Technology, Sun Yat-sen University, Sichuan University, Jilin University, and Central South University. All of these institutions are on the national list of the Double First-Class Initiative and are very strong in disciplines of clinical medicine, basic medical sciences, and public health. As Double First-Class Initiative universities, these institutions annually receive additional financial support from the government, which can be used for education, infrastructure, and scientific research. The updates of the National List, released by the Ministry of Education, provides a reference for the recruitment of new members. In terms of support for operation costs, the Alliance mainly relies on funding from the Ministry of Education and social donations.

The Alliance strives to promote medical education and disciplinary development of medicine by facilitating exchange, building consensus, pooling resources, and creating synergy.

The role of the Alliance is four-fold: a platform for exchange and cooperation, a showcase of best practices, a thinktank for policymaking, and an organizer of assessment and evaluation. In delivering this role, the Alliance has sponsored periodic high-level meetings and forums, conducted research and training, built information platforms, and informed policymaking. All these activities are not only open to the Alliance members but also to all medical schools in China.

In response to the national initiatives of strengthening higher education and building a healthy China, the Alliance has four long-term goals: 1) promoting disciplinary development of medicine in China; 2) exploring new concepts of medical education and facilitating the building of a high-level medical talents training system; 3) innovating teaching philosophy and models to deepen the reform of medical education in China; and 4) strengthening the quality standards of medical education and improving the evaluation and monitoring system.

Going forward, the Alliance will continue to be active and focused, targeting these crucial issues while addressing the low-hanging fruit. Through research and consultation, it will push forward policymaking and implementation; and by involving medical schools around the country in its activities, the Alliance will help them gain common ground, pool resources, learn from each other, and achieve homogeneity in their outputs.

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