ASSOCIATION OF ACADEMIC HEALTH CENTERS

LEADERSHIP PERSPECTIVES

Collaboration Drives Innovation: Advancing Health Security




Lukoye Atwoli, MBChB, MMed Psych, PhD
DEAN, MEDICAL COLLEGE EAST AFRICA
The Aga Khan University Nairobi, Kenya

Nancy J. Brown, MD
DEAN, SCHOOL OF MEDICINE
Yale University

Jeffrey Ferranti, MD, MS
VICE PRESIDENT AND CHIEF INFORMATION OFFICER, DUKE HEALTH
Duke University

Robert D. Simari, MD
EXECUTIVE VICE CHANCELLOR
University of Kansas Medical Center

2021 // ISSUE 3

aahcdc.org

Association of Academic Health Centers®
Leading institutions that serve society

PERSPECTIVE

BY **Steven L. Kanter,** MD // AAHC President & CEO

Academic health centers must take the lead in defining, implementing, and advancing health security. Effective leadership will include not only the practice of health security at academic health centers and in surrounding communities and regions, but also designing new research programs to advance knowledge of health security, and developing new educational tracks to cultivate and prepare the next generation of health security experts.

The Association of Academic Health Centers (AAHC) is catalyzing this critical work through the AAHC President's Council on Health Security. The Council has defined health security as "a state of optimal readiness for, response to, and recovery from public health threats that endanger the health status of individuals and populations" and notes that "health security exists when all people, at all times, have physical, social, and economic access to sufficient, safe and science-based healthcare to meet the needs for a productive and healthy life."

The COVID-19 pandemic has underscored the need to invest in health security. At the 2021 AAHC Annual Meeting, an interactive session highlighted the important role that a Chief Health Security Officer, or a well-coordinated team with equivalent enterprise-level responsibility, can play at an academic health center. Advancing health security through leadership, partnership, research, and education is highlighted in the four commentaries in this issue of *AAHC Leadership Perspectives.*

Lukoye Atwoli, MBChB, MMed Psych, PhD, dean of the Medical College East Africa at The Aga Khan University, explains how his institution established a standing committee charged with mitigating pandemic and related risks. He notes that partnerships—both national and international—are an integral part of their health security strategy as they "are an essential forum for learning and understanding better ways of dealing with the challenges."

Nancy J. Brown, MD, dean of the School of Medicine at Yale University, describes how the pandemic challenged leadership to create and test a new model of collaboration that "fundamentally advanced [their] ability to maintain health security." She highlights how they designed a pan-university initiative, assembling "knowledge from across the institution to focus on a single critical challenge." This model proved so successful that they are planning to leverage their experience to address other challenges and critical issues.

Jeffrey Ferranti, MD, MS, vice president and chief information officer of Duke Health at Duke University, brings the critical perspective of a chief information officer. He highlights the importance of "continuity planning" to advance health security. He describes the importance of redundancy, backups, proactive monitoring, table-top exercises, rapid restore plans, and other actions, and notes that "these practices are directly applicable to fortifying our institutions against health security events."

Robert D. Simari, MD, executive vice chancellor at the University of Kansas Medical Center, underscores the important role that academic health centers play in advancing health security. He notes that "[b]ecause academic health centers provide direct patient care, coordinate public health initiatives, and drive the development of testing and therapeutics, they are well-positioned to take the lead when it comes to health security."

Advancing health security is more important than ever before. These four outstanding commentaries highlight that academic health centers are at the vanguard of leadership in this effort and must ensure that we continually improve knowledge and practice.

Lukoye Atwoli, MBChB, MMed Psych, PhD

DEAN, MEDICAL COLLEGE EAST AFRICA

The Aga Khan University, Nairobi, Kenya

To address health security threats, one of our strategies is to have a standing committee dedicated to mitigating such risks in place. Our team includes senior leadership of the hospital and medical colleagues. The fundamental purpose of the team is to assess threats and agree on high-level planning that then is implemented in ways through which we can track progress.

The team assigns specific tasks to team members who are in charge of different aspects of health security and who implement team directives and decisions. The Chief Medical Officer, for instance, tracks responses and reports this information to the leadership team. The Chief Nursing Officer is in charge of certain interventions, including the vaccine intervention that we have in place.

Partnerships are also an integral part of our health security strategy. The partnerships that we have create an essential forum for learning and understanding better ways of dealing with the challenges that we face. Indeed, the pandemic has underscored for us how extremely important those collaborations are and has led us to both strengthen existing relationships and create new relationships around interventions, data collection, and data sharing.

As an example, we share the information we collect about given threats, such as the pandemic, with the national government in Kenya, particularly the Ministry of Health, which is responsible for planning the country's response to threats to health security. We receive regular briefings from the Ministry of Health. We also value the ongoing partnership we have with research institutions, such as the Kenya Medical Research Institute with which we are currently collaborating on research, surveillance, and clinical trials as we try to find solutions for the pandemic.

International partnerships are also vital. Our partnership within AAHCI has been very useful for sharing best practices and basic information about how institutions are addressing this latest health crisis, and those kinds of relationships have been very important to us. We also have maintained communication through our ongoing collaborative relationships with universities in North America and Europe. We have continued partnering with our colleagues in Karachi where we have a sister Medical College within the Aga Khan University in Pakistan. Through all these relationships, we are able to share best practices and learn from each other.

Technology also plays a key role in health security. Throughout the pandemic, for example, the use of digital platforms has greatly extended our capacity to share information and best practices with colleagues all over the world. We have benefited inestimably from being able to attend teleconferences with partners in Europe, North America, and other parts of Africa. Similarly, digital platforms have enabled our students and faculty to sustain and even expand their access to international experts. The pandemic has also shown us how we can use telehealth to ensure remote patient access to healthcare, another critical element of health security.

> "...the pandemic has underscored for us how extremely important those collaborations are and has led us to both strengthen existing relationships and create new relationships around interventions, data collection, and data sharing."

Going forward, I think many of the safety measures that we have in place to protect our faculty, staff, students, and patients are not going to change. We are more vigilant in assessing patients who come to the hospital and have become better skilled at determining patterns in health challenges more rapidly. Electronic health record systems will enable us to quickly analyze any patterns that might compromise health security so that we can make decisions and disseminate those decisions as widely as possible within our network. In general, we are striving to make decisions about health security faster, easier, and with more evidence than was the case in the past.

Nancy J. Brown, MD
DEAN, SCHOOL OF MEDICINE
Yale University

The COVID-19 pandemic led us to test a new model of collaboration that has fundamentally advanced our ability to maintain health security—a "state of optimal readiness for, response to, and recovery from events that endanger health status."

Traditional models of hierarchical leadership can be effective in times of crisis because of their inherent capacity for streamlined decision-making. However, the need to react in real time to the rapidly unfolding uncertainties and complexities of COVID-19 suggested that a different approach was needed. At Yale, we conceived of a kind of "Manhattan Project," as the urgency of the situation indicated a need for a cross-disciplinary team to work in a "shared leadership model."

Established in March 2020, the Covid-19 Response Coordination Team (CoReCT) was charged with coordinating a clinical, research, and data-driven response to the pandemic. Designed as a pan-university initiative, CoReCT included leaders from the schools of medicine, public health, nursing, engineering, law, and environmental sciences, the affiliated health system, and economics and social sciences in the Faculty of Arts and Sciences of Yale College. In this way, we assembled knowledge from across the institution to focus on a single critical challenge.

CoReCT employed a shared leadership model to stand up communications and data platforms, manage and deliver patient care, protect healthcare workers, facilitate an outpouring of scientific discovery, and raise and distribute philanthropic funds to support that work. Fundamental to the model was an underlying value system that encouraged transparency, inquiry, tolerance for ambiguity, diversity of thought, and accountability. All members were encouraged to engage actively; differing viewpoints led to lively discussions and realization of gaps. Leaders and researchers from different disciplines came together to build productive cross-disciplinary collaborations with unprecedented speed and efficiency.

Outcomes and benefits to health security from the CoReCT initiative ranged from rapid implementation of evolving care protocols, to the early establishment of testing platforms and technologies, to a greater scientific understanding of the virus and the effective modeling of its spread, to the development of vaccines. Efforts resulted in successful implementation of accelerated processes for review of clinical trial approaches; rapid mobilization of multidisciplinary experts to optimize treatment algorithms; establishment of large repositories and datasets for broad use; and alliances with local and global communities.

We are now planning to leverage the experiences and momentum gained from CoReCT to address other critical challenges that threaten health security. As a first step, our Office of Health Equity Research is convening a multi-disciplinary group of leaders and stakeholders to tackle pressing issues in health equity in New Haven and beyond. Following the CoReCT model, the effort will be characterized by a cross-functional approach, an accelerated timeline, and a focus on deliverables. The goal is to develop models that will serve as a blueprint to advance health equity on a national scale.

CoReCT highlighted the power of interdisciplinary collaboration across silos when supported by the necessary infrastructure. It taught us that rapid mobilization of people and processes is possible in an academic environment.

> "...the need to react in real time to the rapidly unfolding uncertainties and complexities of COVID-19 suggested that a different approach was needed."

Jeffrey Ferranti, MD, MS

VICE PRESIDENT AND CHIEF INFORMATION OFFICER, DUKE HEALTH

Duke University

The COVID-19 pandemic has underscored the fragility of our healthcare system and inspired many to begin proactively addressing the issues of health security. At a high level, health security aims to ensure the resiliency of our care delivery systems during times of pandemic, natural disaster, and other catastrophic events. In an age of globalization and 24/7 internet connectivity, an event originating on the other side of the globe can quickly spread to our backyard. During these incidents, even small issues in health operations, logistics, supply chain, workforce, or IT, can be amplified causing unanticipated challenges. More concerning, issues of health security seem to differentially impact vulnerable populations and magnify care disparities. Holistic and multisector solutions are required to address this complex problem, and the time for action is now.

At a macro level, organizations such as the Centers for Disease Control & Prevention (CDC) and the World Health Organization (WHO) aim to build the robust and resilient public health infrastructure needed to quickly detect and respond to public health crises. Initiatives such as the Global Health Security Agenda (GHSA) and the Global Health Security Initiative (GHSI) have inspired a coalition of countries to coordinate responses in anticipation of the next global health threat. Similarly, multiple academic institutions have started programs in health security to foster multidisciplinary dialog and the generalization of knowledge through peer-reviewed journals.

At an institutional level, we need to prepare our organizations for the unanticipated. While COVID-19 is the challenge of the day, it is important to think broadly because a failure of imagination will leave us vulnerable to future events. In 2017, the WannaCry ransomware attack shocked the world when over

“At an institutional level, we need to prepare our organizations for the unanticipated. While COVID-19 is the challenge of the day, it is important to think broadly because a failure of imagination will leave us vulnerable to future events.”

300,000 computers were infected, and significant disruptions to care delivery were experienced by the National Health Services (NHS) in the United Kingdom. In this case, the world dodged a major crisis when an innovative security researcher discovered a way to quickly inactivate the software. A focus on broad-based business continuity planning is critical before our systems are challenged in a new and unanticipated way.

As a health IT professional, this sort of continuity planning is a part of my discipline. Complex and interdependent technologies are only as stable as the weakest link. Redundancy, backups, proactive monitoring, and plans to rapidly restore systems after a failure are necessary to maintain high availability IT services. Table-top exercises and regularly scheduled failovers are used to standardize approaches and ensure teams can execute in a crisis. These practices are directly applicable to fortifying our institutions against Health Security events. While a CIO is likely not the first person you may think of when preparing for the next health security crisis, it is important to recognize how these crossover skills may benefit an organization.

We all have a responsibility to deliver high-quality and equitable care to the populations we serve. This responsibility becomes even more acute during times of crisis. As healthcare leaders we need to call upon the whole team to proactively address issues of health security so we can ensure our communities remain resilient when they need us most.

Robert D. Simari, MD

EXECUTIVE VICE CHANCELLOR

University of Kansas Medical Center

There have only been a handful of instances in history when a disease outbreak has reached the level of a global pandemic. We are currently in such a pandemic with the novel coronavirus. As of September 2021, more than 220 million cases of COVID-19 have been reported worldwide, and more than 4.5 million deaths have been attributed to the virus. In addition to the human cost, COVID-19 has wreaked havoc on the global economy, and it has exposed the weaknesses in our systems for health security.

The World Health Organization defines health security as the proactive and reactive activities required to minimize the danger and impact of acute public health events that endanger people's health across international boundaries. In a country without a coordinated healthcare system, the network of academic health centers has served as a vital resource before and during the COVID-19 pandemic. Because academic health centers provide direct patient care, coordinate public health initiatives, and drive the development of testing and therapeutics, they are well-positioned to take the lead when it comes to health security.

When the novel coronavirus was identified and sequenced in early 2020, academic health centers—through coordination with federal agencies—responded with the rapid launch of tests for COVID-19. The development of a COVID vaccine originated in academic health centers and by academic health center graduates working in private and government labs worldwide. On the patient care front, academic health centers also expanded their capacities to care for the crush of patients affected by COVID-19.

As waves of the pandemic have rippled across the country over the past 18 months, most academic health centers have been overwhelmed. It is not just the lack of ICU hospital beds that has fueled the crisis. As was the case earlier in the pandemic, it is the shortage of trained healthcare workers. In fact, many hospitals—including academic health centers—have even fewer nurses, respiratory therapists, and physicians now than during last winter's surge. Academic health centers are the secure pipeline to meet the needs to train new healthcare professionals.

According to a study released by KFF/Washington Post earlier this year, a majority of frontline healthcare workers say the pandemic is taking a toll on their mental health. Academic health centers have worked diligently to monitor the staff well-being to proactively identify risks and develop initiatives to address their needs.

But it is not just in clinical settings that academic health centers are making a measurable impact. Community, county, and state-level health departments have turned to academic health centers for the most current and accurate COVID-19 data to guide their decision-making. While localities were often influenced by political considerations, the healthcare experts from academic health centers were generally perceived as focused, committed, and unbiased.

As the pandemic approaches the end of its second year, we must continue to support our academic health center healthcare providers and leaders striving to meet their ongoing missions. Finally, we must advocate for resources necessary to be prepared for the duration of this pandemic, as well as the next.

> "Because academic health centers provide direct patient care, coordinate public health initiatives, and drive the development of testing and therapeutics, they are well-positioned to take the lead when it comes to health security."