

Viewpoint

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Arthur L. Kellermann, MD, MPH, became Dean of the F. Edward Hébert School of Medicine at the Uniformed Services University of the Health Sciences, on September 7, 2013. The unique school has ranked among the top in the nation, and is the country's only federal medical school.

Dr. Kellermann's distinguished career is anchored in academic medicine and public health. Prior to joining USU, he held the Paul O'Neill-Alcoa Chair in Policy Analysis at RAND, a non-profit research organization. He was a professor of emergency medicine and public health and associate dean for health policy at the Emory School of Medicine in Atlanta. He founded Emory's Department of Emergency Medicine and served as its first chair from 1999 to 2007. He also founded the Emory Center for Injury Control, a World Health Organization Collaborating Center.

A two-term member of the board of directors of the American College of Emergency Physicians, Dr. Kellermann was subsequently given the College's highest award for leadership. He also holds "excellence in science" awards from the Society for Academic Emergency Medicine and the Injury Control and Emergency Health Services Section of the American Public Health Association. Elected to the Institute of Medicine (IOM) in 1999, he co-chaired the IOM Committee on the Consequences of Uninsurance and served on several other IOM committees. He currently serves on the IOM's Governing Council.

A clinician and researcher, Dr. Kellermann practiced and taught emergency medicine for more than 25 years in public teaching hospitals in Seattle, Washington; Memphis, Tennessee; and Atlanta, Georgia. His research addresses a wide range of issues, including healthcare spending and information technology, injury prevention, treatment of traumatic brain injury, emergency care and disaster preparedness.

As a civilian, what led you to become Dean of the Hébert School of Medicine?

Honestly, when I first heard of the opportunity, I could not imagine that the University would pick a life-long civilian to be dean. But I was interested enough to apply. As I learned more about the School, I was drawn to the vision of the School's namesake, U.S. Rep. F. Edward Hébert (R-LA) who introduced the legislation that created the Uniformed Services University of the Health Sciences (USU) at the end of the Vietnam War. When the draft ended our military was justifiably concerned that it would not be able to recruit enough doctors to support its mission. In response, Rep. Hébert and his fellow congressmen enacted legislation creating the Armed Forces Health Professions scholarship program, which sponsors civilian MD degrees in exchange for 4 years of national service and



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the Uniformed Services University, which would serve as a "leadership academy" to prepare career-committed military doctors (and later, graduate nurses and post-graduate dentists) for the uniformed services. That's why we call it "America's Medical School."

Forty years of success have validated Rep. Hébert's vision. The school's focus on value, leadership training and the development of outstanding officers with a career commitment to military health has paid off in countless ways. The remarkable track records of the School's 5,000+ alumni attest to that fact.

To maintain its LCME accreditation, USU must meet the same academic credentials as medical schools like Harvard and Stanford, but we add an additional 800 hours of military-relevant training on topics like tropical medicine, leadership, cultural awareness and field care experience.

Every medical student comes here on a full scholarship and receives the salary and benefits of a junior officer, so debt is not a concern. And although 35% to 40% of each class have prior military service, the majority of students come to us from the civilian world; nearly one in five represent the first generation in their family to graduate from college.

What I love most about the School is its commitment to national service. In the eighteen months I've been here I've never heard anyone say, "I've got to think about me." I've never been in an organization with a more clear-cut sense of mission. Our graduates are required to serve seven years, but the majority stay in the military or Public Health Service for more than 20.

How does the Military Health System differ from the civilian healthcare system?

First, readiness. The Military Health System (MHS) must be ready, on a moment's notice, to send its best doctors and nurses "down range" to Africa, Asia, a Pacific Island or anywhere else they're needed to address any contingency. Between deployments, military healthcare professionals must provide the same stellar care as Kaiser or Mayo docs, but they must also be able to turn on a dime. No civilian health system has to maintain that level of readiness and the logistics that make it possible.

Second, expertise. The MHS must be, as a matter of necessity, a world leader in certain things. For example, over the past decade, I think the best American trauma centers were in field hospitals in Afghanistan and Iraq. U.S. military's expertise in tropical medicine, treatment of post-traumatic stress syndrome, quality of care and advanced logistics are among the best in the world.

Third, orientation. Military commanders and their doctors win praise when their unit has "an exemplary DNBI rate." DNBI stands for "Disease, Non-Battle Injury"—it's a measure of how well you are preserving the health and fitness of your force for action. If half your command is sick, or disabled from recreational or training injuries, your unit's effectiveness is compromised. Imagine if a mayor or a healthcare CEO was rated based on their ability to keep their population healthy. That's where American medicine has to go. Our focus should be on keeping people well and getting them healthy when they're sick in the most efficient way. I have two posters

in my office. One depicts the dramatic improvements in combat casualty care during the Iraq and Afghanistan wars. The other shows the growing cost of healthcare in the military. I tell everyone who visits me that we must attack the latter problem with the same data-driven, "do-whatever-it-takes" approach to innovation that worked

miracles with the former problem.

“The military’s use of ‘requirement-driven’ research means our incentive is to find a solution, ideally at a modest cost. That’s why our research program isn’t oriented around who pays best; it’s oriented around the answers the military needs to its most challenging health problems.”

How are the two systems alike?

Structurally and content-wise they're virtually identical. Modern military healthcare has similar staff, equipment and daily rhythm. Also, it faces similar challenges. The military health system must be

as focused on customer service as anyone else, and balancing patient expectations about what they think they need with what they really need.

Under TRICARE, the health insurance plan for military retirees and dependents, generally speaking, beneficiaries can go to a private healthcare provider whenever they want. To compete, the military health system must be convenient as well as extremely good to attract patients. And it's hard to be convenient when many of your top facilities are in historic locations that are hard to reach and patients must pass through gates controlled by armed guards. These are two reasons why many retirees and dependents turn to the private sector.

What can the military teach a market-oriented healthcare system about accountable care?

Several things. First, the military health system is one of the most accountable in the world. Our performance records are very public, we have to accomplish our mission on a fixed budget and people can call their congressman if they have a complaint.

Second, we understand the value of prevention and population health. In fact, the largest department in my medical school is Preventive Medicine.

Third, the military's approach to care coordination is exemplary, particularly in the management of combat injuries, from the point of injury to helicopter evacuation to early surgery and finally definitive management and rehabilitation at Walter Reed or San Antonio Military Med Center. There's a lot an accountable care organization can learn from the military about coordinated care.

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Fourth is the closely related concept of “team based care” On average, the military employs fewer doctors and more nurse practitioners, physician assistants, corpsmen and medics than the private sector. A Special Forces medic in Afghanistan may perform more lifesaving procedures in a night than I did in a year of staffing the ER of a level 1 trauma center.

Fifth, the military’s use of “requirements-driven” research. In contrast to the NIH and other civilian research agencies, which embrace “investigator-initiated” research, the military identifies a requirement, challenges its best researchers to come up with a solution, quickly develops the most promising approaches and deploys them as quickly as possible. Everything is driven by data and directed at improving outcomes. That’s how, over a span of about 12 years, the military health system implemented about 30 major advances in combat casualty care, including advances in evacuation, diagnostics, medical management, surgical techniques, prosthetics, neuropsychiatric care and rehabilitation. This embodies IOM’s concept of a “learning healthcare system.”

The military grades commanders and medical officers by their unit’s “DNBI” rate. What is this concept and what can it teach the market about the value of prevention and population health?

DNBI stands for a unit’s “Disease, Non-Battle Injury” rate, which measures a commanders ability to safeguard the health and well-being of his or her troops. Civilian health systems typically award bonuses to executives and physicians for gross revenues. To drive effort in a fee-for-service environment, most healthcare systems’ use RVUs [relative value units] to determine the “productivity” of their doctors and award bonuses. In the future, high-performance health systems should ask their providers, “What’s your DNBI rate?” Imagine if we used this same approach to grade mayors and corporate CEOs. Attention would be focused where it belongs—on their ability to keep their population healthy.

What can we learn about coordinated care from the military’s success in reducing fatalities in combat casualty care during wars in Iraq and Afghanistan?

First and fundamentally, it’s understanding that individual effort is important but your team makes the difference.

Optimal outcomes depend on a lot more than the physician or surgeon. They depend on great nurses, medics, corpsmen, critical care air transport personnel and many others. In the military the emphasis is on selfless service and team success. They practice and work together. It’s never about you or me. It’s about the patient who is counting on us.

Military healthcare is built upon the concept of a “learning healthcare system” based on the IOM principle that not all progress requires RCTs [randomized control trials] and yet still use data-driven decision-making. What can that teach our market-driven healthcare system?

Randomized control trials are the gold standard for evidence-based medicine, but they are costly, slow and often yield modest results. Over the course of American

history, the military has made amazing strides in wartime, including helicopter evacuation in Korea and Vietnam, forward surgical hospitals in Gulf War I and a huge number of innovations during the wars in Iraq and Afghanistan. Today, it’s not uncommon for a severely wounded soldier,

marine or airman to fly around the world and reach Walter Reed within 2 or 3 days of injury. None of this was achieved without rigorous evidence, but it was deployed in real time, backed by systematic monitoring of treatment and outcomes. As a result, the entire system learned and constantly got better. There’s no reason we can’t do this in the U.S. as well.

The military’s care is based upon “requirements-driven research,” a very different philosophy than the typical NIH “investigator-initiated” approach to research and one that’s in line with the latest thinking on incentivizing high-value innovation. What can the market learn about this approach?

Prior to joining USU, I completed a study at Rand on how we can alter incentives in healthcare to encourage high value innovation. For a variety of reasons, innovation has produced dramatic improvements in efficiency and value in other sectors of the economy, but not in healthcare. Today, the cast-iron foundry I worked in as a high-school student in Tennessee makes 10 times the number of skillets it made 4 decades ago with the same or fewer workers. But in healthcare when we implement

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new technology it almost always results in higher costs. It doesn't have to be this way. When the military identifies a healthcare problem or bottlenecks it turns to USU and other military research organizations and says, "We need an answer to X." It's a purposeful process that is linear and results-oriented. Our incentive is to find a solution, ideally at a modest cost. That's why our research program isn't oriented around what pays best; it's oriented around the answers the military needs to its most challenging health problems. That's why USU has outstanding programs in traumatic brain-injury, PTS, surgical critical care, rehabilitation, emerging infectious disease and preventive medicine.

The care team has become an integral feature of accountable, coordinated care. What can we learn from the military's approach to teamwork and team-based care, which is interdisciplinary, uses task-shifting and increasingly employs remote technologies?

The military's patient-centered medical homes employ more non-MDs than most healthcare systems. On shipboard

and "down range" (in conflict zones) the military relies on enlisted providers, including Army Medics, Navy Corpsmen and Air Force Med Techs to perform a wide range of tasks. Ironically, when these versatile and skilled providers return stateside, they are relegated to simpler roles. Even worse, when they retire from the military, the roles they played so well in service to their country have no analog in the civilian world. It's absurd that an Independent Duty Corpsman who served as the "doc" on a ship full of sailors for months at a time can't join a primary care practice and start contributing the next day. With the help of mobile IT, skilled individuals like these could end the provider shortage in no time flat.

The views expressed are those of Dr. Kellermann and do not necessarily represent those of the Uniformed Services University of the Health Sciences or the Department of Defense.

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