LEADERSHIP PLENARY ADDRESSES

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Marsha D. Rappley, MD, chair of the AAMC Board of Directors, delivered the following address at Learn Serve Lead 2017: The AAMC Annual Meeting in Boston, Mass., on Nov. 5, 2017.
Good morning and welcome. I want to thank all of you for taking time away from your day jobs and spending your limited resources to be among us here today. How does it feel to be among 4,000 people who understand the value of medical education, research, and service?

I want to thank my family for joining me here today. Everything I have to give in my work with patients and my students and my colleagues comes from the love that I receive from my family.

And I also want to thank our colleagues from Puerto Rico, including the deans and faculty who have joined us here for this meeting. Last night, I learned about medical students across the island who are taking medications and treatments to the people who need them. I learned about faculty who have organized—systematically and methodically—to reach what have now become remote areas of the island and establish clinics where sometimes 300 people are seen in a day. Those of you who are doing this work in Puerto Rico represent the best of us, and we thank you for your courage and for your refusal to be daunted by this catastrophe.

I have had so many opportunities to experience education, research, and service leadership through the AAMC, the pediatric organizations, and all of my colleagues at Virginia Commonwealth University and Michigan State University. You always remind me and inspire me to put our patients and our students first.
I believe that the cost of what we do in education and in service is undermining our ability to improve the health of the nation.

This morning I would like to ask you to think with me about some very important questions:

- What are the essential experiences that can only be achieved in medical school?
- What experiences are both necessary and sufficient to demonstrate competency and readiness to step to the next level of training?
- How do the experiences of residency extend seamlessly from medical school and then again seamlessly into the practice of medicine?

I believe that these are the most important questions we can ask ourselves, because answering them will provide us with a path to reduce the cost of what we do. And I believe that the cost of what we do in education and in service is undermining our ability to improve the health of the nation.

Our cost is compromising our ability to prepare a diverse and inclusive physician workforce. This is something we believe is absolutely necessary to attain a truly healthy nation. And our cost is impinging on our ability to sustain the world’s leading research enterprise, which is essential to the discoveries that save lives.

I want to start with my perspective. I began as a nurse’s aide, scrubbing bathrooms through the night and setting up trays for breakfast in the morning. I was then a licensed practical nurse, an associate degree nurse, and a BSN for about 12 years, before I graduated from medical school. I worked at Children’s Hospital of Michigan, where I learned what I had to contribute to others. I worked in child psychiatry inpatient services, where I experienced the depths of despair and the heights of human resiliency.

And I was an inpatient clinical research nurse, where the advancement of science had an intensely personal face. I moved through medical school and residency with a laser focus on my own competency. I then stood like a deer in the headlights when I took my first job in academic medicine, moving with great trepidation through levels of responsibility—as division chief, interim chair, associate dean, dean of a medical school, and now as vice president for five health professional schools and CEO of an anchor academic medical center.

I am also a patient.
I survived an unusual lung cancer, I lost my mother to pancreatic cancer, and I am continually seeking to find a new normal with chronic disease in my immediate family. So my perspective is deeply rooted in the trust that our patients and our learners place in us at the most vulnerable times in their lives. The reality is that our cost is hampering our ability to deliver on this trust.

And when I ask us to think about cost, I am not talking about ways to “cover the cost.” We have faced this problem for a long time. We have been successful in garnering support from health systems and payers, from universities and donors, within medical schools and across departments. We have charged students more in order to provide more scholarships. We have created high-volume master’s programs to generate revenue to support the higher cost of medical education.

But this is moving the chairs on the deck. And in the end, our cost is carried by the very people we want to help—our students and, ultimately, our patients. Today, I will build the case that our cost poses a serious threat to a healthy nation. And then I will describe the assumptions we make that feed this cost, assumptions that we can change.

Three trends are converging on what we do. The first trend is a growing lack of confidence in the value of higher education in general and the cost of education to the individual student. On Sept. 7, the Wall Street Journal published an article by Josh Mitchell and Douglas Belkin, “Americans Losing Faith in College Degrees.” Only 49% of the population surveyed believed that a college degree will lead to a good job and higher lifetime earnings.

For people ages 18–35, among those who go to college, 57% did not think college is a good deal. And this is a significant change in how our society views education.

So what does this mean for the young people we hope to educate as physicians? Many pieces of information, often cited, falsely reassure us. For example, we can cite application to acceptance ratios: on average, medical schools received 39 applications for every available position in 2017. Only 11 of our 149 U.S. medical schools received fewer than 1,000 applications, and one school received more than 14,000 applications for 175 positions.
Today the cost and the length of time in training would discourage me from the career that has given me so much joy and satisfaction. I ask you to think about what sociodemographic of people will even imagine for themselves a career in medicine, given this cost.

I sat at a dinner a few years ago where a young graduate—the first generation in her family to go to college—stood on stage with her 11-year-old son and thanked many people for making her career in medicine possible. We were all so proud of her. And then her faculty mentor whispered to me, “And you know she has $450,000 in debt.”

With the reversal of loan forgiveness for the kind of institution in which she trains, she will enter the practice of medicine with monthly loan repayments similar in size to a home mortgage. This young woman does great work to help others have a better life. But it comes at a personal cost to her that none of us intended.

I think about my own decision to apply to medical school. The odds were against me in every direction. My age, sex, background, my path to my bachelor’s degree, and my financial status. I worked throughout medical school, an option that is virtually impossible today. I benefitted from deferments through my residency—deferments that are no longer available to our residents today.

The current median debt for our students at graduation is $192,000. Today the cost and the length of time in training would discourage me from the career that has given me so much joy and satisfaction. I ask you to think about what sociodemographic of people will even imagine for themselves a career in medicine, given this cost. We are making this hardest for the people we are trying to include.

The second trend is the increasing cost of health care borne to the individual patient. Between 2004 and 2014, the cost of health care for the individual has increased by 72%. Looking to the year 2018, adding copays for visits, prescriptions, and deductibles, my 90-year-old father could pay $1,000 per month and my 28-year-old son could pay $700 per month for health care. This individual expense will change the way individuals seek care. Again, think about what sociodemographic of people will be able to afford the kind of care that we provide in academic medical centers?
We have the tools to improve the value proposition of preparing the physicians of the future and to support the research that leads to cures—but we are not using them.

The third trend is the falling margins in health care systems. The impact may fall most heavily on research and medical education. Our medical schools are vulnerable because 61% of the revenue that flows into our medical schools across the nation comes from health care delivery systems. Currently, my health system is in the process of reducing costs, with a target of about 10% of our revenue, or $350 million, over three years. Systems across the country have done this or are doing this as we all face declines in all lines of support for patient care, including Medicare, Medicaid, commercial insurance, support of education, and support for care of the uninsured.

Over many years, our health systems have partnered to support large start-up packages and heavy investments needed to support laboratories, technology-driven equipment, and basic, translational, and clinical science initiatives. It is not uncommon for the health system to provide half or a third of the cost of the research that leads to cures. With falling margins, there is less money available to provide financial support for research.

I am careful about my choice of words. I have experienced “research leading to cures.” This is not a sound bite.

In the early 1970s, as a nurse, I cared for children who were dying of Wilms tumor, renal disease, cardiac anomalies, leukemia, cystic fibrosis, prematurity … just to name a few. I helped these children and their families at the most difficult times of their lives. And now we regularly graduate medical students who survived these conditions because of our science.

Over time, millions of people who would have died at the time when I entered my career now have full, productive lives and children of their own. This is what science is doing for us.

Our ability to support this science is being eroded by lack of faith in education, prohibitive cost of attaining an advanced degree or even a first degree, protracted training and career advancement, and the decreasing margins of health care delivery. We have the tools to improve the value proposition of preparing the physicians of the future and to support the research that leads to cures—but we are not using them.
We have evidence that students can enter practice successfully with three years spent in medical school. So why do most systems still require four years? We have evidence that some students can enter practice successfully without a four-year undergraduate degree plus four-year medical school path. So why are most systems still built on the longer, more expensive model?

We place confidence in the competency of our graduates and our ability to assess that competency. So where are the systems that allow students to enter and leave our programs according to their levels of competency?

We believe that our students must be competent in critical thinking developed through understanding research and competent in the social systems in which our patients and their families live. Then why are these experiences add-ons to the formal training? Why are these experiences not the vehicle to the gaining of competency in a shorter and more focused period of time?

We struggle to provide care in places and to people who do not benefit from our large health care systems, especially in our rural and urban areas. So why are the building blocks to the practice of medicine not happening among these people who need us? Why are we not integrating in rural and urban settings the science and technology that promises to improve lives?

There are many people who do not benefit from our science and technology, and some of them clearly understand that what is available to others is not accessible for them. And that is not okay. We can change that through education and research, but we must all agree that this is not okay.

I know that many of you are sitting here thinking that we are doing that, we are doing exactly what you describe. And thank you to all of you who are giving us the evidence to support significant change, to increase our value and efficiency in preparing the physicians of the future.
“We are the stewards of our nation’s health care, and addressing our costs and shedding our assumptions are critical to achieving our mission to improve the health of all.

But why are these kinds of opportunities still the pilot programs, the experiments, the exceptions?

No one set out to design a system that requires most of our learners to spend four years to get a bachelor’s degree, four years in medical school, three to five years in residency, another three or five years for subspecialty training, with entry to practice in their mid- to late 30s. This system assumes no time off taken to better prepare for medical school, to work abroad, for a child being born, or for someone sick who needs care.

We did not intend that many of our young people would enter academic careers in their mid- to late 30s and receive their first RO1—still a common requirement for promotion—at the average age of 45.

I believe that we are stuck, often protecting our turf without realizing it. And I believe we can change this value proposition if we focus on what is essential to preparing the physicians of the future. Each of you in this room has the creativity, the drive, the values, and the dedication to move beyond the status quo to create significant change.

I want to convey a sense of urgency, from the vantage point of more than 40 years in health care. If we do not reduce our cost and the time in training, people who do not share our values will fill this vacuum that we leave.

It is still a privilege, and the best job in the world, to care for people when they need us and to bring that enormity of science to bear on the problems of a single person or hundreds of thousands of people. I want to pass this baton, and I want you to help me clear this path for all those who are coming up behind us.

Today, we contribute to the deepening cleft that exists between those who can become physicians and those who cannot. Between those who receive health care and those who cannot. Our awesome science has not yet had the chance to lead our nation to the health status that many other nations enjoy.

My own story tells me what is possible. And for that I am deeply grateful.

As we leave the room today, let us remember that we are the stewards of our nation’s health care, and addressing our costs and shedding our assumptions are critical to achieving our mission to improve the health of all.
At Learn Serve Lead 2017 in Boston, Darrell G. Kirch, MD, AAMC president and CEO, delivered the following leadership plenary address.
Thank you, Dr. Wilson, for that kind introduction. And my thanks to Dr. Rappley for her compelling call to focus on the essentials in our missions and our obligation to ensure access to learning, science, and care for all, not just the privileged. In America, everyone should have equal opportunity to achieve their dreams. Most of all, my thanks to each of you for joining us here in Boston for this year’s Learn Serve Lead.

It seems to me that, the more challenges our nation faces, the more we feel a need to come together as a community at this meeting. This year, one issue in particular has been weighing heavily on my mind. That issue is the threat to truth. The kind of threat that comes from opinion masquerading as fact, especially on the web and in social media. The threat of confusing “fake news” with real news. The threat that exists when bias and fear distract and distort a debate. For us, this threat to truth represents a fundamental challenge to science—the science that we depend on to reveal truth in medicine. Our patients depend on that science.

Each time I visit one of our member institutions, I witness the power of science in action. A few months ago, I spent a day at the Joslin Diabetes Center here in Boston. Diabetes is a disease that likely has been with us throughout human history. And for most of history, the disease meant an early death. But a century ago, medicine found the scientific basis for the disease, leading to the discovery of therapeutic insulin in the early 1920s. Dr. Elliott Joslin, a Boston physician with a deep ethical commitment to patients with diabetes, was a pioneer in the use of insulin and in care models that finally allowed patients to manage their diabetes effectively. He also was a pioneer of interprofessional team-based care. During my visit I learned

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that, as survival rates for diabetes improved, the center established the Joslin Medalist Program to recognize those rare patients who successfully managed diabetes for 25 years—something that once seemed impossible. Then, as science progressed, the Joslin Medalist Program expanded, giving 50-year medals and 75-year medals. In 2013, Joslin recognized the first 80-year Medalist—Mr. Spencer Wallace, a man first diagnosed when he was eight years old. I was struck by the medals as a wonderful way to celebrate the courage and victories of our patients. In just a few decades, the truth revealed by science enabled people with diabetes to live their lifelong dreams.

Hearing about the Joslin Medalists reminded me of my own patients from early in my career. Some of you may know that when I finished my residency in psychiatry, I entered a fellowship at the National Institute of Mental Health (NIMH) in a laboratory devoted to studying schizophrenia. Historically, the diagnosis of schizophrenia was every bit as devastating as juvenile-onset diabetes but with a different course. Typically, the symptoms of schizophrenia would appear in late adolescence or early adult life. Rather than an early death, most patients would live a normal lifespan in number of years, but that life was far from normal. All too often, schizophrenia would rob those patients of their grasp of reality. It would burden them with painful delusions and disturbing hallucinations. It even disrupted their ability for organized thought and speech.

I vividly remember the patients and their families who volunteered for our studies. One patient, in particular, still stands out for me. He was about my age at the time. At one point, he looked at me and said, “You know, I was once you.” My first thought was that this was one of the delusional ideas he experienced. But when I asked him to explain, he had a rare moment of clear thought. With deep sadness and total clarity, he told me he had gone to college filled with hopes and dreams, just like he imagined I had. But he never finished, because his dreams were shattered by the onset of his schizophrenia. My patients and their families knew they might never directly benefit from our research. But, like us, they believed that someday research could finally reveal the truth behind the mysterious, devastating illness that had taken such a toll on them.

Their hope in research was well placed. Think of all those centuries during which people who suffered from schizophrenia were thought to be possessed by demons. With no scientific understanding, people with the illness were not cared for. They were shunned. They were mocked. They were shackled. They had no hope.
Then, in the early 1800s, Philippe Pinel in France pioneered “moral treatment,” a more humane approach to care for psychiatric patients. In the United States, Dorothea Dix led the battle to create safe asylums. Together with that more ethical attitude, science advanced. By the late 1800s, European psychiatrists like Emil Kraepelin and Alois Alzheimer were focusing on schizophrenia as a brain disease. In the early 1950s, researchers studying anesthetic agents serendipitously discovered that chlorpromazine calmed and cleared the thoughts of some psychotic patients and eliminated their delusions. This discovery opened the door to the advances in psychopharmacology of the last six decades. Today, slowly but surely, the brain regions and neurotransmitter systems involved in schizophrenia are being clarified, complex genetic and environmental factors in the illness are being studied, and more targeted psychopharmacologic agents are being developed. Schizophrenia, a disease that like diabetes was once considered hopeless, now is a treatable illness for many patients.

But building scientific evidence is not enough. We need to match our science with an ethical commitment to ensure that all patients benefit from that research. Sadly, the treatment of patients with schizophrenia shows what the failure by society to fulfill that ethical commitment looks like. The dramatic discovery of drugs in the 1950s and 1960s allowed many patients who had spent much of their adult lives in psychiatric hospitals to be discharged. But these patients still required care. Unfortunately, the “deinstitutionalization” of these patients coincided with repeated funding cuts to services for the mentally ill, and a growing shortage of mental health providers left many patients without any treatment or support for reintegration into society. Discrimination against the mentally ill in housing and employment exacerbated their challenges, and, today, many Americans with serious mental illness are chronically homeless. Recent estimates indicate that 20% of the homeless suffer from severe mental illness, including high rates of schizophrenia.¹ Too often, these untreated patients end up in a revolving door between prison and the street, with no treatment to stop the cycle. When we fail to translate our science—when society reacts with neglect, or with bias and fear—we lose the power of science to help our patients.

This is not just an issue for the mentally ill. Bias and fear affect patients with so many serious diseases, from HIV and AIDS to lung cancer. Bias and fear are the enemies of the truth revealed by science. And worse, they make it difficult, if not impossible, for patients to achieve their dreams. We know bias leads to significant disparities.

¹ We need to match our science with an ethical commitment to ensure that all patients benefit from research.
I refuse to live in a post-truth world. I believe in truth. I believe science reveals the truth in medicine. I believe our ethical foundation gives us the compass to apply that truth wisely for the good of our patients.

Research shows that physicians’ conscious and unconscious biases affect how they treat patients of different races. For example, physicians undertreat black patients for their pain while over treating white patients for their pain. For minority patients, these biases result in worse health outcomes. The message here is clear. We need to match our growing base of scientific evidence with an equally compelling ethical commitment to apply that evidence fairly and equally to all our patients. More than ever, we need to resist and fight back. Medicine is finally working through our long history of overt and unconscious discrimination. Now, more than ever, we need to combine our science with an ethical obligation to fight back against bias and fear.

I am concerned that today we face a growing threat to science, to truth, and to our ethics. In 2016, the Oxford English Dictionary selected “post-truth” as its word of the year, defining the term as “relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief.” Do you find that concept as chilling as I do? When we fail to embrace the truth of science and we let bias influence patient care, we contribute to an environment in which important decisions are based on emotion and personal belief rather than on evidence and facts. When this becomes widespread in our culture, across our media landscape, and in our policy discussions, our patients suffer.

In the name of those hopeful patients and their families who so courageously participate in our research studies, I refuse to live in a post-truth world. I believe in truth. I believe science reveals the truth in medicine. I believe our ethical foundation gives us the compass to apply that truth wisely for the good of our patients.

We must not allow emotion and bias to supersede science. We have seen the damage that a post-truth attitude causes. The Centers for Disease Control and Prevention (CDC) has been barred from researching the public health effects of firearms since 1996. The anti-vaccine movement has been putting lives at risk since 1998, when our community let down its guard and allowed junk science to pass through our peer-review system and be published in a highly respected journal. And more recently, this year’s divisive showdown over the Affordable Care Act was based more on the emotion-laden, partisan politics of “repeal and replace” than on evidence about ways to improve the health of the American people.
To see our national conversation descend to a place where facts are in question and “fake news” creates a fog concerns me for another reason. For us as individuals and for our nation, our American dream—and the dreams of countries around the globe—were realized through science and innovation. Science has propelled us to incredible achievements—from walking on the moon to being on the cusp of eliminating polio from the planet. We will always have political differences in our nation. But America’s finest moments have been driven not by politics, but by relying on science to reveal the truth.

Our scientific understanding of disease desperately needs to push forward. Which is why we should all be concerned when we see proposals to cut investment in scientific and medical research. And why it is so important that we consistently push Congress to block those cuts and build our investment.

But it’s not all about Congress or politics or the media. Within medicine, we need to be constantly vigilant to balance our science and ethics. Sometimes we will struggle. Consider the current opioid epidemic ravaging so much of America, including here in Massachusetts. As a profession, we need to admit that, despite good intentions, we contributed to this problem. But now, we are responding—guided by our commitment to “do no harm.” In that spirit, the leadership of the four medical schools in this state jointly developed targeted educational initiatives to help improve everything from prescribing habits to addiction treatment models to overdose responses. With every epidemic—whether the pathogenic agent has been HIV or Ebola or opioids—an abiding commitment to evidence and ethics has been our best defense.
For the AAMC, this critical balance of evidence and ethics guides each policy position we take. We have supported and continue to support:

- expanding access to health insurance, because the evidence shows improved access leads to better health status and longer life. Having insurance saves lives;

- improving access to health care for everyone, regardless of their background, beliefs, race, sexual orientation, gender identity, or geography;

- preserving a clear immigration pathway for learners, physicians, and researchers from around the world, because the evidence shows that they are vital contributors to our innovation and our national health security; and

- continuing the Deferred Action for Childhood Arrivals (DACA) program, because the evidence shows that a diverse health care workforce, including these “Dreamers,” can improve America’s health care and help narrow health disparities.

For every policy position we take, the evidence and ethical principles are our guide.

The challenge to truth has been building for some time. It transcends political party affiliation and our current political leadership. But it is an issue that undermines what we as a community believe and the role we in academic medicine can and should play in society.

I see clear and encouraging signs that collectively we are reasserting the authority of science in our national debates. Last April, more than one million people in 600 cities around the world marched for science. In September, hundreds of you walked the halls of the Capitol in Washington as part of the “Rally for Medical Research Hill Day” to support National Institutes of Health (NIH) funding. And 60,000 of our students and residents have spoken out on key health care policy issues through our AAMC Action grassroots network. It is that kind of passionate defense of science and evidence that will carry the day. Whatever your role in academic medicine, please take a stand for science and truth wherever you encounter misinformation and misunderstanding.
Think how far we have come in medicine. Think of how much farther we can go. Someday soon, someone with diabetes could receive their 100-year Joslin Medal. Someday soon, schizophrenia might not only be treatable, it might be preventable. It all depends on how relentless we are in our commitment to science and truth.

The late Senator Daniel Patrick Moynihan once said, “Everyone is entitled to his own opinion, but not his own facts.” We are flooded daily with opinions masquerading as facts. We need to rise above that and occupy the high ground of evidence and ethics. That is when truth prevails. And that is how each of us—and each of our patients—can realize our dreams.

