Presidential Address: From Where We Stand

Andrew J. Weiland, MD, New York, NY

In preparing for this presidential address, I have done the customary reading of the past presidents' addresses, searched through *Bartlett's Book of Quotations* and *Roget's Thesaurus,* and even subscribed to *American Speaker.* It is difficult to describe the conflict of emotions I have experienced over the past year as president of the American Society for Surgery for the Hand (ASSH). Past presidents have spoken of the pride and humility they felt upon assuming the office of this most prestigious of all subspecialty societies, and I am no different.

First, I want to give thanks to those people who have been the focus of my life: First, my parents, both of whom instilled in me a sense of family, loyalty, and a work ethic. Second, my teachers and role models, many of whom are in this auditorium today. Third, my children, Sarah and Dan, who have taught me what life is really all about. Finally, but certainly not last, to my wife, Nancy, whose love, support, and understanding have frequently been stretched to the limit and beyond. She is my best friend.

As hard as it is for me to believe, in 4 years it will be the end of the twentieth century. There is nothing like the end of a millennium to make one stop and take inventory. During the last half of this century, there has been a remarkable shift in the role of the surgeon as teacher, educator, healer and in the medical field in general. This shift is now in high gear. We are moving at such startling speeds that it will only be a matter of time before the practice of medicine, and specifically hand surgery, careens out of control. We must take responsibility and assume a leadership role before that happens. We often work at a breakneck pace to achieve unrealistic goals defined by people who have no idea of what we do on a day-to-day basis. We all know that when surgery becomes a high-speed race of numbers, its practice becomes meaningless and incomprehensible, and our patients suffer. It is time we take a good look at the hole we are digging before we, and more importantly, our patients, fall in.

Thomas Carlyle said, "We are wise indeed could we discern truly the signs of our own time, and by knowledge of its wants and advantages, wisely adjust our own position in it. Let us, instead of gazing idly into the obscure distance, look calmly around us on the perplexed scene where we stand. Perhaps, on a more serious inspection, something of its perplexity will disappear ... [and] our own true aims and endeavors in it may also become clearer."[1] I chose to title this speech "From Where We Stand" because in the middle of the maelstrom called modern health care, I believe in the wisdom of taking a step back, assessing our place, refocusing our efforts in positive directions, and remembering why we chose the field of medicine and hand surgery in the first place.

During this century, we have seen the discovery of wondrous new technology that allows us to repair injuries at a microscopic level and promptly return to our offices to communicate with a colleague in an institution halfway around the world via a computer terminal. We have come so far in the last hundred years. In the first part of this century, Carrel and Guthrie were just beginning to experiment with the feasibility of vascular anastomoses.[2] Who would

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Reprint requests: Andrew J. Weiland, MD, The Hospital for Special Surgery, 535 East 70th Street, New York, NY 10021.

have dreamed that shortly after the middle of the century, microsurgery symposiums based on these initial principles and expanded upon by Jacobson, Suarez, Smith, and Buncke would draw surgeons from around the world and change the face of surgery forever?[2]

Advances in microsurgery are just one example of the miracles we have witnessed taking place in modern medicine. For many of us, during our own careers we have seen massive advances in nerve repair, regeneration and grafting, free flaps and grafts of vascularized tissue and bone, replantation, the implementation of vastly improved imaging techniques such as computed tomography (CT), magnetic resonance imaging (MRI), arthroscopy, and so much more. We all know we are standing in the midst of a scientific and technologic revolution, and yet we see the system underlying it crumbling and collapsing before our very eyes. The healing profession is being transformed into the healthcare industry whose leaders subordinate the quality of care to the drive for profits.

What does all of this mean to us right here, right now? It means our job has gotten several orders of magnitude easier and several orders of magnitude harder. In other words, all these scientific and technologic advances come with a price tag. There has been a notable increase in what is commonly called the volume and intensity of services provided for the average patient over the last 30 years. The numbers fluctuate from year to year, but from 1960 to 1993, the volume and intensity of services provided to the average patient grew approximately 3.6% per year.[3,4] Much of this rise can be attributed to new technology that not only increases costs for individual patients but also provides the means of keeping people alive longer. The benefit of technology cannot be denied. However, it is clear that these increases in cost cannot be sustained.

In recent years, it has been argued by some that the cost of health care has in fact decreased.[4] No matter how many components of the budget we are able to reduce or how good we make the numbers seem, however, as long as healthcare expenditures continue to grow faster than the gross domestic product (GDP), we will have to continue to find savings. Figure 1 shows the rise of healthcare expenditures as a percentage of GDP for 1960–1993.

We must accept that healthcare resources are limited. If we do this, we then accept responsibility for becoming more efficient and aware. Resources will have to be apportioned responsibly in order to provide adequate health care to everyone at a reasonable cost, but who should make the decisions? *We* should—absolutely. If we do not want our patients' well-being to hang in the balance by placing their health care on a balance sheet, then we must take steps to prevent it.

Every day, new horror stories surface about patients being denied adequate care on the basis of cost-effectiveness. A recent article in *Time* magazine summed it up in a single sentence: "...the new

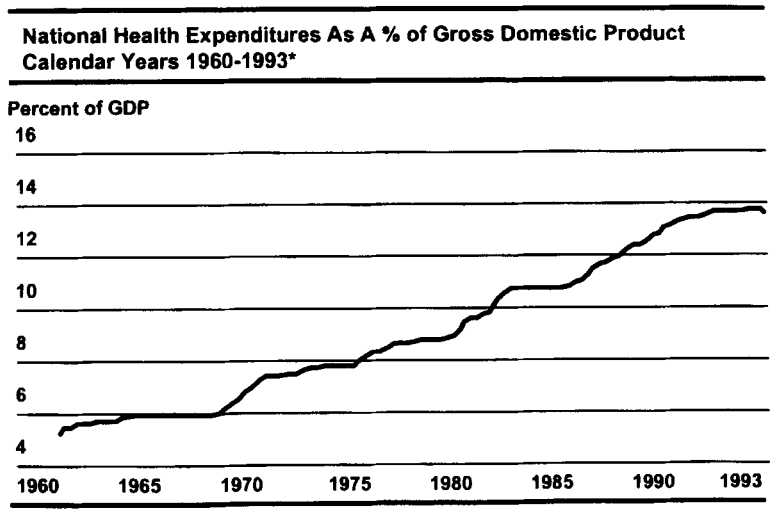

Figure 1. National healthcare expenditures as a percentage of gross domestic product, calendar years 1960–1993. (From Levit et al.,[4] with permission.)

medicine's entrepreneurs have turned health care into a corporate battlefield increasingly governed by the promise of stock market wealth, incentives that reward minimal care, and...aggressive competition."[5] The last statement of that same paragraph asks, "Can you still trust your doctor?" I want each and every one one of you to ask yourself the question "Can I be trusted?" Are you making decisions that are in the best interests of your patients in both the short and long term, or are you still in denial that changes are inevitable? We must ask ourselves: Is that MRI necessary? Is that wrist arthroscopy essential?

The ferociousness with which the health maintenance organizations (HMOs) are succeeding is far beyond what many of us suspected. Membership in HMOs has more than quadrupled since 1982, from 10.8 million people to almost 50 million by the end of 1994 (Fig. 2). At this rate, within a few years almost every American with private healthcare coverage will be enrolled in a managed-care plan despite the fact that many believe they will be denied coverage in order to save money.[6]

From where we stand, we can see that the delivery of health care in this country is in trouble. Physicians in all specialties are expending significant energy to distinguish themselves at the expense of others, making all kinds of claims that they have the solution to the healthcare crisis. Unfortunately, the system is failing because no one is looking at the whole problem. I know one thing: if we want the system to survive, we cannot treat it on a symptomatic basis. We need to work together as a team to diagnose and treat this problem. We must do this or suffer the consequences, which will no doubt include being puppet doctors on corporate strings treating specific problems with designated solutions.

You may ask yourself, as I often have, "What can I do?" Well, the answer is to become more aware of the day-to-day costs of health care and understand that we can no longer assume that "someone" will eventually pay for all of the tests, scans, surgeries, and hospital stays. That mysterious "someone" turns out to be your patients, your colleagues, and ultimately you. We cannot justify ignorance when it is obvious that ignorance is leading to inadequate health care for a majority of the population and the inability of our patients to select the physician or surgeon of their choice. It is a fact that many working Americans no longer have access to a family physician. Do you know the cost of an MRI or a CT scan at your institution? Do you know the operating budget of your division or department? The truth is that we have to accept that our profession is changing, and in order to be part of those changes we need to become more administratively educated and stop hiding our heads in the sand.

In an excellent article entitled "Markets, Budgets, and Health Care Cost Control," Joseph White explains that physicians should demand a majority voice in the design of fee schedules and budgets. After all, physicians are best able to judge the value of procedures. Representatives of the public and government should be given a share in the process that is large enough only to represent other perspectives and to break deadlocks. The responsibility of these policymakers should be to make sure that each patient is in

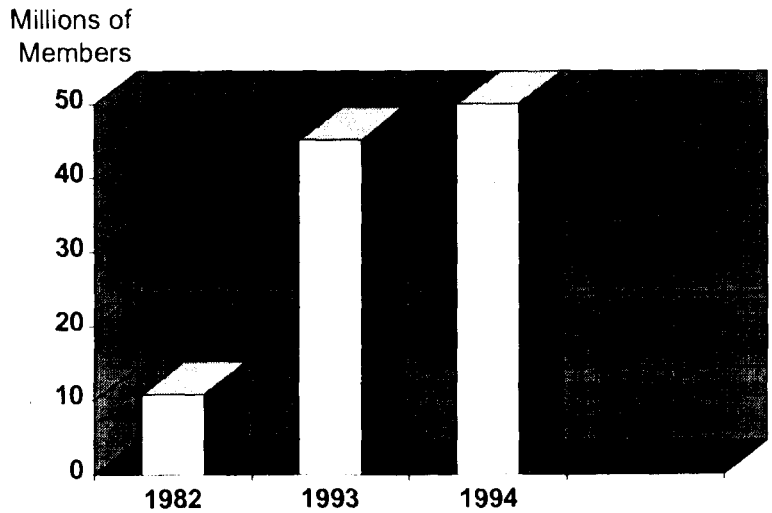

Figure 2. Increase in health maintenance organization enrollment. (From Castro,[6] with permission.)

fact receiving adequate health care allocated according to proper professional judgments. Physicians should have a much larger role in utilization review in order to ensure the highest quality and lowest cost. White recognizes that physicians do not want to have the responsibility of controlling costs, but only physicians can implement cost controls in a manner that produces the most quality for the money. The best kind of system is one in which costs can be controlled without interfering with—and preferably by enhancing—professionalism. He states, "Attempts by nonphysicians to create incentives for predefined proper practice are wrongheaded. Nonphysicians cannot know enough, and if physicians can agree on such guidelines, they should implement the standards themselves."[7]

Responsibility means knowing that healthcare resources are limited. Accepting that as a fact and not waiting for a hospital administrator or the government to sort out the problem is how we can preserve our autonomy and our profession. It really is that simple. If health care continues to consume a higher proportion of the budget (the budgets of both of individual and the government), the quality of life (even if it is longer) is ultimately diminished.

If we look at the federal budget, it provides an excellent example of what rising healthcare costs mean in terms of resource allocation. In 1965, health care consumed less than 5% of the federal budget; by 1990, it tripled to 15%, and by the year 2000, it is expected to double again to 30%.[8] If 30% of the federal budget goes to health care, there will obviously be less money to spend on education, social welfare programs, crime, energy, and the environment. Figure 3 illustrates the increase in healthcare expenditures funded by federal sources from 1960 to 1993. The numbers continue to rise.

Senior surgeon role models who helped guide surgery, so common in the first half of the twentieth century, are more unusual today than in previous times. I think that this may be a hard pill for some of us to swallow, but what we have to realize is that multidisciplinary care and teamwork have increased the efficiency of healthcare delivery in an increasingly overcrowded and competitive climate. This is the model for the various HMOs, which, fortunately or unfortunately, are here to stay in one form or another. We must admit that a multidisciplinary team of surgeons, anesthesiologists, internists, oncologists, and radiologists who are familiar with each other, respect one another, and work together in an efficient manner to plan a patient's care is a far more rational approach for the patient load we are seeing today. In the words of Abraham Lincoln, "I don't think much of a man who is not wiser today than he was yesterday." This is a time for wisdom and vision, not whining. I am convinced that only those who have courage and determination will survive in the rapidly changing environment of modern health care.

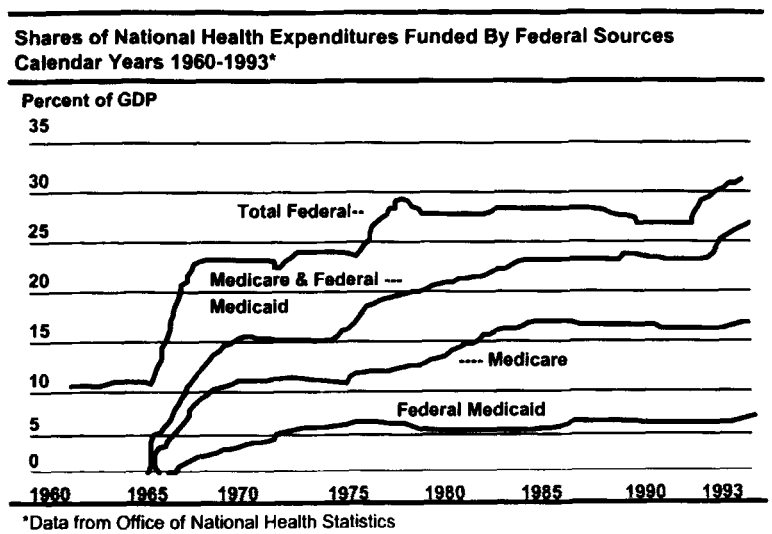

Figure 3. Shares of national health expenditures funded by federal sources, calendar years 1960–1993. (From Levit et al.,[4] with permission.)

Several years ago, I was stimulated by a series of articles by David Eddy, formerly of Duke University. Many of his articles have appeared in a series format in the *Journal of the American Medical Association.* His viewpoint is compelling and astute. Anyone truly interested in this subject would do well to carefully read and understand his work. In an article entitled "Medicine, Money, and Mathematics," he has a very interesting way of relating his predictions about cost-cutting in medicine: "I can see it all very clearly. The one thing I am uncertain about is who will make the decisions about costs. Notice that I did not say whether costs will be considered ... it is already happening. The only question in my mind is who will take costs into account. Will we do it, within the profession, primarily through practice guidelines? Or will it be done by outsiders, by business and government, primarily through the meat-ax approaches of prospective payment, volume performance standards, precertification, and utilization review? The changes that are under way today are as inspiring and as important as genetic engineering, transplantation, imaging, or any of the other advances in medical science. It is an exciting challenge, and we're up to it."[9]

It will be especially interesting for this audience to note that the word *surgery* is derived from the Greek words for hand *(cheir)* and work *(ergon).*[10] The practice of surgery dates back to approximately 10,000 B.C. to early efforts at trephination. When we begin to feel like little more than corporate automatons, we need to remember the great tradition of which we are all part. There have been countless men and women who have dealt with far greater hardship than we now face. This is not a profession for the weak in character. Can we even begin to imagine the practice of surgery before the advent of anesthesia? Our profession demands that we meet challenge and opposition with determination, courage, and ingenuity.

Preparing for the presidential address has afforded me the opportunity to reflect on the most significant aspects of my life in medicine and orthopedic surgery. After thinking about this for over a year, I have come to the conclusion that the single most important aspect of my professional development has been the influence of heroes. We all need heroes. They make us feel good, like Kerri Strug, the gymnast who sprained her ankle yet valiantly completed the next vault, guaranteeing the first ever gold medal for her American teammates. Heroes render issues clear and uncomplicated. They are mentors, role models, and friends. The original Greek definition of *hero* is "superior man." To quote Dr. Hoopes from his Upchurch lecture presented to the Southeastern Society of Plastic and Reconstructive Surgeons, "A hero is great not merely by virtue of what he does but by what he is. The hero sees what others do not, his knowledge of what must be done to realize what he sees is surer, and he pursues his goals with conviction."[11]

At this point, I want to make it clear that I feel our profession is changing in one sense but in another sense remaining very much the same. The days of the dictatorial and authoritative surgeon may be over, but the days of the surgeon as hero and skillful artist are not. Henry Miller said that "the ordinary man is involved in action, the hero acts. An immense difference." We have chosen a field where action and rapid decision making are part of our daily routine. We are all heroes and must learn to practice with the integrity and honesty that this title demands. The changes in health care are not a license to abandon responsibility and hope and go for the gold. In fact, exactly the opposite is true. As compelling as it might be to just give in to resignation, I think it is best to remember the words of Pascal: "the strength of a man's virtue should not be measured by his special exertions, but by his habitual acts."

The future will always offer an unlimited amount of opportunity and challenge, but it is often our past experience that gives us the determination to welcome and embrace change. The courage to push our boundaries and seek ways to improve our circumstances often comes by following the examples demonstrated by our role models. As children, our behavior is dictated by following the example of our parents. As we all recognize, their influence on us has profound and lasting effects. However, as we grow, we begin to discover new role models and heroes in the people we encounter in the world around us. They, too, have a significant effect on the way we conduct ourselves and our careers.

The term *mentor* came from Homer's *Odyssey.* As Odysseus' trusted friend, it was Mentor who, in Odysseus' absence, nurtured, protected, and educated his son, Telemachus. Mentor introduced Telemachus to leaders and guided him in assuming his rightful social and political place. Mentor's instruction went far beyond the teaching of special skills. It encompassed personal, professional, and civic development—that is, development of the whole person to full capacity through integration of that person into the existing community.[12]

As a young resident in orthopedic surgery at Johns Hopkins, my hero was an attending surgeon who recognized pathology and knew the appropriate solution, whether it was surgical or nonsurgical, and how to treat the patient. As residents, we needed to be taught by example to do the right thing. I was most fortunate to be exposed to Dr. Robert A. Robinson, who enabled me to achieve maximum potential by providing me with constant stimulation, encouragement, and enthusiasm for the field of orthopedic and hand surgery. He had an immense impact on those he trained and instilled in me the need to try to have the same positive impact on those residents and fellows with whom I have come into contact over the past 20-plus years. He was my first role model in orthopedic surgery. He became my mentor and, in fact, was a hero to me.

As a young surgeon in academic hand surgery, I had the good fortune to be surrounded by many heroes. Most of you are in this audience today. Harold Kleinert taught me hand surgery and introduced me to the great teachers and educators in the ASSH. Sharing of information, knowledge gained, and the friendships and fellowship developed over the 17 years I have been a member of this society have provided me with more than I can ever give in return.

In addition to the great heroes I have met in my lifetime, there are two historical figures who stand out in my mind as excellent examples of what a surgeon should be. Neither of these men came from privileged backgrounds, yet they achieved lasting fame and recognition for their contributions to the field of surgery.

Ambroise Paré is an extremely important figure in the history of surgery. He played a vital role in modernizing surgery during the Renaissance. Born in 1510 to a cabinetmaker in northwest France, he went to Paris at the age of 15 and was soon apprenticed to a barber-surgeon. He served as a surgeon's assistant for over 2 years at the leading Paris hospital of the time. Snubbed by the College of St. Côme, he joined the army in 1536.

The most famous incident in Paré's career occurred late one evening after a large battle at Turin when, after running out of boiling oil, which was the standard treatment for gunshot wounds, he was forced to treat the injured soldiers using a healing preparation made of "yolk of egg, oil of roses, and turpentine."[13] The next morning he was amazed to discover that the soldiers treated with the healing preparation had fared much better than those treated with boiling oil. Those treated with the healing preparation were sleeping peacefully and showed no signs of fever, whereas the soldiers treated with the boiling oil were feverish and their wounds were inflamed and swollen. He made up his mind to "abstain wholly from the painful practice of treating gunshot wounds with boiling oil."[13] Although other surgeons had voiced reservations concerning the use of boiling oil for gunshot wounds, Paré's ability to communicate his findings in both clinical practice and the written word brought him lasting fame.

Paré is an excellent example of competence in the areas of communication, cooperation, and education. His most famous surgical text, *A Universal Surgery,* published in 1561, described many new procedures and instruments, including those for cataract removal and a bath chair to alleviate the pain of kidney stones. His books were based on practical experience and the modern anatomic observations of Vesalius. By making the work of Vesalius popular and accessible to surgeons, Paré had a major influence on Renaissance surgery. He also observed that ligation of blood vessels worked much better to control bleeding than cauterization during amputation procedures. His motto was "I treated him. God saved him."

Just over 200 years later in 1728, John Hunter was born on a small farm in Scotland as the youngest of 10 children. He dropped out of school at 13 years of age. With little or no prospects for the future, he asked his older brother, William Hunter, a well-known obstetrician-gynecologist, if he could join him in London. He was granted permission and given the task of preparing anatomic dissections. Much to his brother's amazement, he showed an incredible aptitude for anatomy and began to attend his brother's lectures in surgery. In 1751, he enrolled as an apprentice to the famous surgeon, Percival Pott, at St. Bartholomew's. From 1754 to 1756, John Hunter became the house surgeon at St. George's Hospital, where he received the majority of his practical training.

John Hunter was extremely curious, and he was especially interested in the pathophysiology of various types of surgical diseases. His surgical expertise was based on a widely acquired, firm knowledge of anatomy and physiology. It is well known that Hunter suffered from tuberculosis as well as angina for most of his later life. Despite his chronic illness, he was appointed deputy surgeon of the army and inspector general of hospitals.

In operative surgery, quite possibly his single greatest achievement was a new method of treatment

for popliteal aneurysm that preserved the limbs of thousands of soldiers and the general population. However, his greatest contribution to the field of surgery was the utmost professionalism, precision, and determination he exemplified. John Hunter remains a giant in the history of surgery because of the volume of his written work, his outstanding clinical contributions, and the caliber of students who trained under him. One of his most famous students, Philip Physick, is often considered the father of American surgery. Physick was known to possess all of those virtues taught to him by his role model and hero, John Hunter. His attributes included being a calm, deliberate, open-minded surgeon who was also gentle, tender, and sympathetic to his patients.

We must appreciate that the single most important achievement of all of these men has been to unify and elevate the profession of surgery through the *communication* of ideas. It is only through communication and cooperation that our profession can thrive. In the words of Abraham Lincoln, "We know nothing of what will happen in the future but by the analogy of past experience." All of the individuals I mentioned as role models have advanced the art of surgery through communication, cooperation, education, and inspiration. I believe the future of medicine is also utterly dependent on these four elements. If we lose sight of these essential components for any reason, then we sacrifice the present and the future.

Let us begin by looking first at communication in the contemporary setting. The overwhelming complexity of modern medicine can be made comprehensible only through the use of modern technology. Unfortunately, today there is no technology readily available to the busy hand surgeon that centrally organizes vital medical information. For example, how many times have we seen similar studies performed over and over with little or no new knowledge gained, whereas other innovative studies are overlooked? We must concede that the rapidly diminishing funding for research and grants must be allocated responsibly based on need and current demand. I have often imagined, as I am sure all of you have, how amazing it would be to be able to access all—not just a drug trial here or a new way of performing a procedure there—but all of the information available for a given medical topic. Perhaps the so-called information superhighway will actually enable us to operate more efficiently as a body of professionals. We must work together to come up with both short- and long-term solutions to effectively handle the massive amount of information available to us and incorporate these solutions into the mind, office, and future education of every doctor. We can no longer afford to be disorganized, inefficient, and technologically backward.

The second essential element is cooperation. If we truly want to change the face of medicine, we must endeavor to cooperate with one another. We cannot deny the importance of professional solidarity if we want to exact profound change in the system. In an unstable setting, there is often a great deal of conflict and competition. Yielding to these impulses will only make the job of those who wish to undermine the system easier. Dispute and controversy within the rank and file absolutely contradicts the needs of patients. Uninhibited cooperation between colleagues is the only solution that recognizes the team concept that is so much a part of the mission of the ASSH.

The third element is education. As the emphasis on clinical competitiveness increases, there is no doubt that academic endeavors will suffer. The most important components of the academic medical center are the residency and fellowship programs, many of which are struggling to survive. Both of my children, Sarah and Dan, are currently students at Cornell Medical School. I am so very proud of them, but I worry about the level of training they are receiving in such a financially unstable climate. Much of the cost-cutting within academic hospitals has directly affected the available resources for medical education.

It may be difficult for some institutions to justify the cost involved in training residents, but clearly the alternatives are even more unjustifiable. In his presidential address to the Southeastern Surgical Society, Hiram Polk stated, "No matter how we structure this, in my opinion, in the short term, medical education and medical research as we know it will suffer directly and terribly. We should not let our medical schools be sacrificed on the altar of profits."[14] He further explains that in order for education to be saved, it will require "structural flexibility, leadership transformation, and risk sharing that includes not just work but also personal financial commitments on the part of physician[s]."[14]

It should not be just a *goal* to maintain high standards of quality in our medical schools and teaching hospitals; it should be a *responsibility* we all undertake willingly and energetically. All the most important people in history, and indeed the most influential people in my own career, have recognized the importance of education and have made it a priority rather

than a general notion with little or no specific action bound to it. Let us remember the words of Albert Camus: "Real generosity towards the future lies in giving all to the present."

This brings me to inspiration, which I have saved for last because I believe it is the most important component of the four elements I have outlined and the key to our collective future. I truly believe it is the means of achieving success in any undertaking. As we face the challenges and changes that the future undoubtedly holds for all of us, we should not forget why we were inspired to become surgeons in the first place. I mentioned earlier that heroes played a large part in my choice to pursue our demanding yet rewarding profession. I also believe that they, in combination with my patients and practice, have had the power to fill me with the courage and energy to stand in front of you all today and say with conviction that despite all of the challenges and hardships our profession has faced, I still have an intensely positive outlook and hope I can somehow inspire each of you to hold the same. I charge each and every one of you to leave this room today and believe that you as an individual can make a difference in the lives of not only your patients but also of those men and women who train under you and look to you for support and encouragement. We must breathe life back into a profession that is not just a trade but an art.

Who will be remembered as carrying on the tradition of surgical integrity in the face of current challenges? The healing arts in general, not just surgery, are under close scrutiny. There is no doubt that a large degree of autonomy of thought, judgment, and action must belong to the surgeon if he or she is to perform essential duties. However, we cannot remain autonomous when every aspect of our profession is based on protocols conceived by big business and dictated by financial gain. There will have to be concessions on both sides. I am advocating not inflexibility but rather a compromise that truly considers the needs of everyone concerned. Abraham Lincoln said, "The true rule, in determining to embrace or reject anything, is not whether it has any evil in it, but whether it has more of evil than of good. There are few things wholly evil or wholly good."

In closing, I do think it is important that we gaze on the perplexed scene where we stand and try to assess how we figure in it and what we can do to improve it. Our role in society as healers does not concern only the body. We must use our skills to heal the sickness of a health system that desperately needs repair. We must carry on the great tradition of surgery with fortitude, integrity, and wisdom.

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