

Editor's note: This Presidential Address was delivered during the 80th Convocation of the American College of Surgeons on October 10, 1996, in San Francisco, CA.

ellows, Initiates, friends, guests, and associates. I welcome this opportunity to address you with gratitude to those who felt me worthy, with enthusiasm for the challenges that lie ahead, and with humility because of the many individuals who may be equally or more qualified to stand before you. Thank you for this honor.

Few of you in this room are not familiar with story of Humpty Dumpty, an early trauma victim who was distinguished by the fact that "all the King's horses and all the King's men couldn't put

Humpty together again."

There are two aspects of this tragedy that are noteworthy for the purpose of my discussion to-night. First, whoever happened upon the scene didn't send for any old string of nags and incidental guys from a temporary agency like Manpower. The call went out for the specialists, the top of the line—the King's horses and men. Second, the call was not selective beyond that: "Send them all."

This scenario is analogous to the traditional "cardiac arrest" response in the hospital setting. In my hospital, "Dr. Pacemaker" repeated three times over the loudspeaker was sufficient to concentrate 20 percent of the hospital's staff in a 10-by 12-foot room in a patient care unit in roughly three minutes. Someone in that group invariably knew what to do.

ut times are changing, driven by individuals and by organizations on the periphery of medicine who are answerable more to the accountants and stockholders than they are to the patient or the physician. A recent cartoon from *The New Yorker* referring to Humpty Dumpty sums it up superbly: "He's in an HMO. Get some of the King's horses and a few of the King's men." *Some* of the King's horses and a few of his men!

What are the implications of this situation? Immediately we are confronted with the issue of workforce numbers. If the King's horses and King's men are hanging around waiting for a 911 call and only a few of them are summoned, there obviously won't need to be as many of them as once was the case. There is no question about this country's need for specialists; there's just a question about exactly how many specialists, and what kind, we need. If you pay attention to current theorists, there are too many specialists right now, to say nothing of the number of physicians-in-training who are in the pipeline.

Projections like these have led to dire predictions of surgeons retraining to be family physicians, or even leaving medicine altogether. Can the future be as bleak as some people would describe it? Are 20 percent of the young surgeons attending this meeting to be unemployed or underemployed? Is it appropriate for those of us who are seniors to shake our heads and remark that the golden era of surgery is over? I think not.

e would all agree that surgery remains an attractive field. The best and the brightest of medical school graduates are still competing for positions in surgical residency training programs. The limited number of openings each year functions like the old-fashioned milk separator, which brings the cream to the top. In response, surgical training programs have been meeting the challenge of educating intellectually endowed and highly motivated residents by reviewing and upgrading educational systems. As an example, the American College of Surgeons has created a program to refine the teachings skills of academic surgeons, all in the name of improved education.

Without exception, the residency review committees (RRCs) have insisted on quality. As a result, the number of entry positions that are available in general surgery and the surgical specialties has remained remarkably stable, despite the pressure of receiving applications from many more qualified individuals than can be accommodated. Unlike many nonsurgical fields where a number of residents can learn together by observing and participating in one case, the prospective surgeon can become proficient only through active physical as well as intellectual participation—a process that frequently requires one-on-one interaction with his or her mentor for optimal training.

The impact the need for this kind of training has had on the "quality" issue for the surgical

RRCs has served as a restraint on runaway approval of residency slots and has indirectly limited the numbers. It is one of the many paradoxes plaguing our field that while the government, the public, and the payors cry for control of numbers, the mechanism for dealing *directly* with numbers through the RRCs is prohibited by regulatory restraints endorsed by these same groups. Nonetheless, the process of ensuring quality education, with which no one disagrees, serves the purpose of indirectly and effectively defining the number of positions in surgical residency programs.

ow, a serious question remains for those who speak about numbers. What is the right number of surgical residencies, or surgeons? All kinds of expert opinions float around with quasi-scientific support: that is, the recommended number of surgeons per capita, the number per capita per area, the percentage of specialists in a typical HMO guidelines that in reality are as unsophisticated as an Iowa farm boy on a New York subway. Most people base predictions of oversupply only on the number of persons entering the field, multiplied by 30 years or whatever the anticipated length of practice is thought to be, with the resulting figure being used to project a surplus. The number of empty beds in hospitals across the country and some examples of maldistribution add fuel to the fire. But what are the realities?

The number of surgeons entering practice on an annual basis has been relatively stable for the past 15 years or so. Much of the credit for that stability could be given to the 1980 study done by the Graduate Medical Education National Advisory Committee (GMENAC). This impressive report—incidentally, a former Regent and First Vice-President of the College, William Donaldson, played a major role in the process—pointed out that at the rate surgical residencies were increasing in size and number at that time, there was, in fact, a potential problem with overproduction of surgical specialists. This report had an immediate dampening effect on the creation of new residency slots. Because of the increase in resident positions in the '60s and '70s, the absolute result of this stabilization will not be realized for another 10 to 15 years. However, at that point, the number of physicians entering surgical

residency training and the number of surgeons retiring will become more or less equal.

But this is a simplistic look at workforce issues. There are other things happening that are perhaps less tangible, but that have just as significant an effect.

o begin with, we cannot ignore the flip side to starting a practice, which is retirement. Surgeons are retiring from active practice or limiting their involvement with major surgery earlier than they were 30 years ago. To some extent, this trend relates to the pressures of practice today: Most surgeons are busier in the operating room than they were in the '50s and '60s, and procedures are often more complex. Added to this situation is the aggravation of paperwork and the substantial overhead we all face. For example-speaking from personal experience—in 1965 the fee for one cup arthroplasty of the hip paid my entire annual malpractice premium and a full week of my secretary's salary. Now it takes 12 hip replacements to cover the annual malpractice insurance cost alone. Slowing down is no longer a reasonable option. So surgeons are retiring or revamping their practices into an office or administrative style earlier in their careers, in part because the demands of maintaining a surgical practice are too great to permit a slower pace.

A second factor has to do with lifestyle. Perhaps as a byproduct of the emphasis on controlling the number of hours worked per week during residency training, there is a trend—and a healthy one—toward surgeons controlling their practices, rather than vice versa. It is a rare resident who goes into surgical practice these days on his or her own. Most enter group practices. Many new surgeons choose very controlled circumstances in large groups with protected hours off and guaranteed vacations. This trend has an indirect and inverse effect on individual productivity: without decreasing the numbers in the workforce, increased numbers are needed.

A third factor that potentially could affect numbers—and that is clearly not calculated, or perhaps calculable—is the number of women going into the surgical field. Women work just as hard, or harder, than men do, but I think they have more sense about having a balanced life. I think that some of that good sense will rub off on their male counterparts. For example, after a College chapter meeting this past spring, a young female surgical resident was taking me to the airport when she suddenly asked: "Do you think you can practice surgery on a three- or four-day-a-week basis?" I was somewhat nonplussed for a moment and was about to say, "No way," when it suddenly occurred to me that that was basically what I was doing: practicing three or four days a week, and traveling three or four days a week, and it seemed to work out okay. But in order to make that kind of schedule work, there have to be two or three surgeons to cover a practice that might otherwise be covered by only one or two.

And somehow there seems to be more work to do. Of course, the population is growing in numbers and aging in years, both of which contribute to an expanded need for surgical personnel. However, something else is also happening that I

can't quite put my finger on.

hen I started out in Syracuse at the University Hospital, the emergency room was staffed only by nurses; there were no physicians on the premises. If needed, they were called. Furthermore, the ER was closed from 11 pm to 7 am. There was a button outside the door that said, "If you think you have an emergency after 11 pm, push this button." If you pushed it, pretty soon the nurse supervisor on duty would come along, open the door, and ask what the emergency was. If she agreed that it was an emergency, she would let you in and call a house officer. If not, you were invited to return in the morning when the ER opened again. Today, as you know, it takes a large staff of specialists in emergency medicine to run the place 24 hours a day with all kinds of standby support from specialists of all types, surgeons in particular.

What's the difference? In our case, the population in the area has not changed drastically, if at all. Part of the change relates to the dramatic increase in violent crime. Also, more vehicles of all sorts add to the number of trauma victims. And some safety measures, such as seatbelts and motorcycle helmets, actually add to the volume in the ER because they save lives but not necessarily bodies. Incredibly damaged people are being salvaged

who previously didn't make it to the ER. In some instances, the number of available staff is barely adequate to do the job. The change has been gradual, but the impact has been gianificant.

ual, but the impact has been significant.

So, are we being misled by the theorists and statisticians who claim we need fewer surgeons per population unit? There is a danger inherent in statistics, particularly when it comes to human beings. For instance, we have a situation in our antiquated hospital in which there are routinely two patients in a room—one next to the window air conditioner, where the ambient temperature is, on occasion, 55 to 60 degrees, and the other patient on the other side of a curtain next to the hall where the temperature is possibly in the 80s. Whenever the engineer is called to correct the situation, he will stand in the center of the room and say, "Aha, 72 degrees, perfect!"

In other words, averages mislead. Certainly from a *statistical* standpoint, one surgeon *can* serve a sizable population providing problems arise sequentially rather than simultaneously, and providing that he or she stays healthy, takes no vacations, and happens to have the right specialty qualifications. If, however, you have a ratio whose numbers would keep a single surgeon very busy, it is probably necessary from a practical standpoint to have two. Obviously two surgeons won't be quite as busy as one would be, but is

that all bad?

hich brings us back to HMOs, where much of the speculation about a superabundance of surgeons originated. Paradoxically, unless you believe in immortality, everyone is going to have a terminal event. HMOs eventually fail in every individual case. The longer that terminal event is postponed, moreover, the more nonterminal events are likely to occur.

The current Medicare initiative to get patients into HMOs is going to be very interesting to watch. We are talking about a population that is going to tax HMOs to the limit, and I guarantee you that their budgets will feel the pinch. The 30-year Medicare "experiment" has created a mindset in our elderly population that they will be taken care of. If their coronaries get clogged up, they will be bypassed; if they have breast or prostate cancer, it will be dealt with expedi-

tiously; and if their hips wear out, they will not have to be satisfied with using a cane. It will be difficult to reverse expectations like these if your "organization still claims to maintain health."

Increasingly, efforts by HMOs to limit access to specialists or to certain treatments are being challenged by legal or even legislative actions. You might question if we're making progress when decisions that formerly were the province of the medical profession have been transferred from an HMO's office staff to lawyers and state and federal legislators. It seems like progress in some cases, and it's a sign that if doctors are no longer being allowed to call the signals, at least other patient advocates may be coming back into the game.

ow let me return to our broken-up trauma victim lying at the bottom of the wall. I have mentioned two aspects of his accident and the subsequent call for help—there was a call for numbers and a call for specialists. There is a third aspect that should not be overlooked. The call went out to the government, the King. Even in the days of fables, we see that there was government intrusion into patient care—in this case, because the King had the best horses. Naturally, because the King had the most money. Whoever has the most money has the best horses, and also makes the rules.

Therein lies the root of the problem. There is nothing inherently wrong with government as long as it is answerable to the governed. And when government gets into medicine, there is a tremendous potential for good. It is nice to have the King's horses, but there are also dangers associated with his involvement. Does the King need to come along to supervise? Technically, that is his right should he choose to exercise it. Increasingly we are feeling the eyes of the King upon our daily practice of surgery.

The government is now pervasive in our professional lives. We have seen incredible benefits as a result of the support of research that has been provided by the National Institutes of Health (NIH), the National Science Foundation, the Department of Transportation, and the Centers for Disease Control and Prevention, to name a few examples. Over the years, the partnership between government and medicine in the space program has been productive for both parties. Sup-

port for medical schools and residency training programs has helped put, and keep, this country at the forefront of the world in this arena. And, in return, when the need arises as it did with Desert Storm, for example, the medical profession has responded with skill and enthusiasm in spite of disrupted lives and careers.

n the other hand, we have witnessed increasing intrusion into the medical decision-making process via obstructive legislation or poorly controlled regulatory activities, with ill-defined objectives and often unanticipated results. The Thalidomide catastrophe of more than a generation ago lingers with us. This event triggered a paternalistic posture on the part of government agencies that assumed the population could be saved from bad medicine, bad devices, and bad doctors by enthusiastic bureaucrats. With its protective zeal, the Food and Drug Administration (FDA) has been progressively driving industry overseas, where development costs and time to market are compatible with reason. Litigation—as exemplified in spades by the pedicle screw fiasco with associated legal costs approaching millions of dollars for all parties involved—has tied the hands of the FDA in a fashion that would be unthinkable with the NIH, where science prevails. Unfortunately, as professionals we have made our own contribution to this difficult situation.

But when the government got into the business of recording physicians' adventures and misadventures it embarked on a tricky convoluted mission. The National Practitioner Data Bank (NPDB), as discussed so cogently by Paul Ebert, MD, FACS, College Director, in his column in the July 1996 issue of the Bulletin, was conceived with the best of intentions to prevent unscrupulous practitioners from moving about the country ahead of the law. To a great extent, this entity was brought about by our own inability to deal with charlatans even when we could pick them out with ease. However, the NPDB is no longer answerable to the government to the extent that it has become a financially self-sustaining body, mandating institutional inquiry and charging a fee for the information. An incredibly powerful position.

Furthermore, as Dr. Ebert and others have

pointed out, the data are available to virtually everyone and are being used for purposes that were never intended. For example, the NPDB is heavily used by HMOs and insurance companies for information on physicians who are then subject to being dropped from the list of acceptable providers with no other reason given. This situation has become an overwhelming factor in our daily professional lives that needs attention. Residents are often innocent victims, because they are named in the standard litigation process that starts with every person associated with a case being listed, even if he or she merely held a retractor or sutured the skin. Names are recorded even when cases without merit are settled to avoid the costs of going to trial. This is an engine with a built-in perpetual energy source that is running out of control. We need to work with the government to restore this renegade agency to some semblance of responsible service.

nd now back to the theme closer to home—"some of the King's horses." HMOs are increasingly becoming the subject of criticism, outright vilification, and, as we note here, wry humor, along with litigation for limiting patient access to treatment. Some of these negative reactions are deserved. Certainly HMOs have not kept a lid on the increasing cost of medical care.

Layering additional administration on any system rarely cuts costs. In fact, when a commercial venture gets into financial trouble, the first reaction is usually to get rid of excess administrators. Reimbursement systems such as capitation or fee "withholds" can create a significant conflict of interest at the front line for a treating physician. Even in the absence of "gag rules," a practitioner will think twice or more about suggesting an expensive treatment or referral when it may directly cost him or her money. The capitation system, under which more money is made by providers when less care is provided, is basically a method by which an insurance company or HMO can guarantee profits because it has precise control over income and expenses. There is no need for actuaries, the risk is shifted to the physician or surgeon, and the patient is out of the loop. It is quite reasonable that ethical questions are being raised about this system.

On the other hand, much of the fallout from . the evolution of the managed care concept has been beneficial to us as surgeons. We have found out that patients can come to the hospital on the morning of the day on which the operation will be performed and survive just fine. We have learned to do operations on an outpatient basis that 20 years ago would have been unthinkable. For the most part, patients like that arrangement better, and in many instances they do better. We have shortened follow-up time with no real loss. If something isn't working, we still learn about it. We are able to do more cases, and we do them better in all respects. We are forced to look critically at our results and to justify the costs of what we do. When it comes to crisis situations, surgeons, as specialists, are still called upon urgently although not en masse. The "Dr. Pacemaker" call is a thing of the past. Emergency calls are selective with, in most cases, an appropriate response.

he reality is that the practice of surgery has changed enormously, and most of that change has been dramatically for the better. I close with the confidence that the future will be as exciting and rewarding as the past. And when the call for help comes, as it surely will, whether it will be for all available medical personnel or only for some, it will be for the King's horses and the King's men, because when the chips are really down, everyone wants the best. And that is what you, our new Fellows of the College, represent—the best! \Omega

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