Perspectives:
A Teaching Hospital Executive

by Jerome H. Grossman

Perhaps the most critical and difficult issue facing academic medicine is the nature and function of its central responsibility: education. The focus of this issue of Health Affairs supports this assertion. While the delivery of patient services and the conduct of basic and applied research in this country are not untroubled and the funding for both of them is not predictable, these aspects of academic medicine seem both robust and responsive to the changing requirements and demands of society compared to medical education.

Robert Ebert and Eli Ginzberg have laid out the history of the events that have brought us to this place, and put forward an agenda for change that addresses some of the fundamental dysfunctions. What is particularly interesting about these recommendations is that they are almost entirely within the purview of the academic health center (AHC). Achieving the changes may require foundation support for developing and testing new models, as the authors note. Yet I believe there are enough funds within the system now to allow a new operating system to function once it has been tested.

I write both to buttress their arguments and to call for more radical reform of some of those models. My vantage point is that of a chief executive officer of an institution that is the “primary teaching” hospital for a medical school, has approximately 450 residents and fellows in twenty programs, and has more than 100 medical students resident at any one time. I also have completed five years as program director for the Commonwealth Fund’s Task Force on Academic Health Centers.

Unbundling The Joint Product

The recommendations of Ebert and Ginzberg point to one of the most critical issues facing AHCs: “unbundling” the allegedly inextricable

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products of education, research, and patient care. For nearly thirty years following World War II, AHCs operated and were funded based on the tenet that their three basic functions were interdependent. Many within these centers still believe that since this interdependence was responsible for such great success in the past, to unbundle or separate the functions will impair or prevent success in the future.

Ebert and Ginzberg address one aspect of this dilemma—what is and is not basic education—and how the blurring of the boundary has been detrimental to those it attracts and to the functioning of the profession. Not only has the idea of the joint product become detrimental to the educational process, it is clear to me that it adversely affects the delivery of optimal patient care. Successful unbundling can achieve better functioning of each individual element, as well as a more successful whole. I am by no means suggesting the dismantling of the AHC; rather, that we unbundle the functions, improve them, place them in the appropriate setting, and then coordinate them.

Society is moving away from implicit cross-subsidy of AHCs’ societal functions—free care, unfunded research, and education—by using deregulation, prospective payment, and competition to expose the network of cross-subsidies, and by forcing each activity to stand on its own. This problem is especially severe in the case of academic medicine and its education and training function. In a time of budgetary pressure, there is great fear that explicit unbundling of the costs of each function will put future funding at risk. \(^1\) I would propose looking at this issue by describing basic education and its components, and then the changing role of the “teaching hospital” and its “faculty.”

What Is Basic Education?

Ebert and Ginzberg suggest we have lost sight of basic education; I agree. They suggest that the mark of basic education should be the full preparation of the generalist, and that clinical specialization would follow. They assume a continuum that may not be as smooth as they suggest, however. The gap between the clinical specialist and the generalist may be wider than we think, and that gap may be increasing. Certainly the educational program for one who will pursue a full-time research career will be fundamentally different from that of a primary care generalist. Let me speculate about a future in which there is an even greater difference between generalists and subspecialists—a difference that will highlight our dilemma in specifying what constitutes basic medical education. I envision that in the foreseeable future we may see two separate functions for physicians.
One group of physicians will work in tertiary care settings treating acutely and complexly ill patients, much as they do now but in a far more integrated and coordinated setting. The specialists and subspecialists likely will work in disease-oriented centers within academic health centers, and likely with a research affiliation. Some will work as employees in the major research/referral centers, and others will be in multispecialty group practices associated with regional acute care hospitals.

At the other end of the spectrum will be physicians whose primary interests are the health and well-being of individual patients and families. The new primary care practitioners will take on what we now think of as a public health role, but in this case the populations they serve will not be a city, county, or state but a selected group of people whom they will serve as diagnostian and advisor. Working in offices or in group-practice settings, they will deal with patients on a more personal and caring level, working to prevent or treat such problems as substance abuse, obesity, smoking, and hypertension. They will be not gatekeepers who jealously guard the portals of the health care system, but advisors, counselors, advocates, and intermediaries for their patients. When specific diseases arise, these physicians will use their diagnostic skills, training, and judgment to make appropriate referrals.

Joseph Bell, who taught medicine to Arthur Conan Doyle and served as the inspiration for Sherlock Holmes, gave an excellent and still quite timely definition of the skills and talents every such practitioner should possess: "The piercing and intelligent recognition and appreciation of minor differences is the real essential factor in all successful medical diagnoses . . . . Eyes and ears which can see and hear, memory to record at once and recall at pleasure the impression of the senses, and an imagination capable of weaving a theory or piecing together a broken chain or unraveling a tangled clue–such are implements of his trade to a successful diagnostian."

In keeping with this ideal, the basic education of the generalist in the future may have a much greater emphasis on the social sciences, epidemiology, clinical decision making, and statistics, whereas the specialist may have an education more similar to the fundamentals of today's medical school. Even this, however, needs to be considered carefully. Undergraduate science has improved in both depth and breadth, bringing enormously well-grounded students to medical school. At the same time, our current basic science departmental structure may not be the most responsive to the rapidly evolving sciences. A single track, even in basic medical education, may not be the optimal outcome.

In addition to content, there are the issues of form. Any professional education takes a number of forms: (1) classroom instruction of a funda-
mental core of knowledge; (2) laboratory work aimed at enhancing and reinforcing the knowledge learned in the classroom; (3) training to impart skills needed to put acquired knowledge into practical use in later professional life; and (4) apprenticeship in the profession, under the supervision and tutelage of experienced professionals.

As we move from the classroom and laboratory to the program of training to impart skills, important questions arise. In law and business, for example, the school instructs students on a campus in an established core curriculum, and later supervises and evaluates those students as they perform their external project and practicums (their “laboratories”). The students’ actual “work experience,” however, is provided not by the school’s law firm or corporation, but by the real world of law or corporate life. The equivalent of residency programs is clerkship for “specialists” (for example, tax or business law), or master’s degree programs in specific areas outside the scope of the formal education. Only medicine has “teaching” hospitals in which this phase of work is carried out.

One reason that the education and training period is so inordinately long and costly is that we assume medical students need to know every thing there is to know. But why? Are we trying to form a race of super-doctors? Medical education is still based on the existence of a majority of physicians in solo practice, far from academic medical centers and dependent on journals for continuing medical education. We have, in essence, educated doctors to go out on their own, just as they did a half-century ago. We expect graduate physicians to know all there is to know about medicine, just as they could in 1938. Our response to the information explosion is to pile more on students, extend the training, and have more graduate specialties. We ignore the ability to gain easy access to databases and specialists; that access is the benefit of advances in information and communications technology over the past twenty years. Such untapped or at least underused resources now allow physicians to reach people and obtain information about the most recent medical advances.

Lawyers, by contrast, are not expected to know everything there is to know about the law. They are expected to be intelligent and hard-working. Most important, they are expected to know the fundamental principles and practices of law, understand how to classify different types of cases; and know where, how, and when to look things up. The same principles can and, I believe, should apply to medicine. Instead of teaching students everything we think they will need to know, we should ensure that they learn fundamental medical and biological principles, instill the ability to properly collect and analyze information, and back it up with the substantial informational resources (such as specialists, databases, books, and journals) already at our disposal.
Before I address the issue of education within the teaching hospital, the rapidly evolving nature of "teaching" hospitals must be considered. The earliest teaching hospitals were independent hospitals that allowed teaching to occur as they carried out their principal mission of patient care. After World War II, such hospitals became what we know today as the academic health center, where the functions of patient care, research, and education were integrated (as equals)—the academic three-legged stool, with political and financial support as reinforcement.

In the past several years, however, with the emphasis on deregulation, competition, and cost control, this support for integration has reversed rapidly. It was feared originally that this shift to market forces would draw patients away from the teaching hospitals because of their high costs, but prospective payment has resulted instead in a strong shift of patients to these teaching hospitals. However, the mix of patients now being treated in teaching hospitals is increasingly inappropriate for basic medical education, and the prices paid for that care leave little room for the additional costs of education.

The principal function of the primary teaching hospital clearly is, or has become, the delivery of various patient care services. The academic health center as three-legged stool has given way to the tricycle, with the large wheel of patient care providing the power to drive research and education. It is still true that, as a rule, those hospitals with comprehensive teaching/training programs also provide a large portion of acute care for the most complexly ill patients. These institutions—the proving grounds for new discoveries, new therapies, and new technology—are considered by society as central to the health care system, and as such are judged first and foremost by the quality of the care they deliver, not by the education they provide or the research they perform.

The issue facing them is not whether they have education and training or research functions, but rather what purposes those functions serve and how they are organized and paid for. American industry and service industries in particular (companies such as IBM and AT&T) are learning the critical importance of internal training and development of personnel to meet the specific needs of the corporation and its employees, and the demands for efficient, high-quality service. Similarly, the need for both basic and applied research to advance service is equally well understood. IBM, for example, currently conducts basic research in superconducting materials; that research is expected to pay off in the future in the form of new applications and new products such as smaller, faster, and more efficient computers. These companies, which will own the products they
test and develop, know that their investments will be paid; most of the procedures, improved protocols, and new applications developed and tested in the academic medical center will be in the public domain.

In medicine, we are witnessing the evolution of “health care corporations,” predicted in the final chapter of Paul Starr’s book The Social Transformation of American Medicine. They are not the huge for-profit “supermeds” that were predicted a few years ago, but rather the cooperative grouping of a series of not-for-profit institutions that are organizing to provide a full range of services to their communities. Often the primary teaching hospital of a medical school is a principal member of such a group, further emphasizing its critical role in the patient care system rather than as an educational institution.

The authors’ recommendations force us to consider these issues head on. If, as they suggest, basic education is to include what are now the first two years of training, we are forced to sort out the educational goals and the methods to achieve them from the service goals of the care delivery system. It is clear that in their service role, interns and residents are generally comparatively inexpensive and critical to the support of both the senior staff and the hospital. Without them, the hospital and the faculty practice plans would need to hire more expensive—that is, more highly paid or work-limited—replacements (although new restrictions on the working hours of residents are beginning to change this).

It also has become clear, however, that the cost savings of housestaff would sometimes be offset if we were to take efficiency into account. By their very nature, interns and residents create major inefficiencies in time and cost—adding to length of stay and procedures and to the utilization of ancillaries—and also can adversely affect overall efficiency of the service. Permanent trained staff usually are better able to deliver sustained and consistent service.

To provide appropriate education and effective training in the optimal complex delivery system will require a fundamental change in the methods we use to teach, and a much clearer identification of which work we do constitutes education, which is training, and which is merely supervision or evaluation. Once we have made those distinctions, it will be easier to determine who is responsible for each of them, where and how they are most properly accomplished, and who should pay.

Additionally, as the patient care in teaching hospitals increasingly concentrates on treating more severely ill patients, they are becoming less appropriate as centers for apprentice-based education and training of generalists and office-based practitioners. Tertiary care hospitals as a rule no longer offer the broad spectrum of programs, varied levels of care, and diverse patient base necessary to provide students and housestaff with
comprehensive education and experience. In seeking to implement the recommended reforms, we will have to face yet again the unbundling of our joint products, with careful definition of each function and then the coordination of those separate functions.

**Role Of The “Faculty”**

In addition to the central focus of defining basic education, as well as its content and function in the service environment, an equally important aspect of the Ebert and Ginzberg recommendations relates to the role of the faculty. The fact that there were (as of academic year 1985–1986) 61,397 full-time faculty for 66,585 students speaks to the problem of definition. Very few of the faculty spend more than 10 percent of their time teaching undergraduate medical students. Instead, they are engaged in patient care, research, and through this work the supervision of residents (and students).

The critical step in bringing medical education through the changes necessary is to define clearly the boundary of basic education (classroom instruction and laboratory work) and give unambiguous control (authority, responsibility, and accountability) to educators. At the same time, we then must accept that training programs belong under the aegis of the industry, through either the professional service corporations now called faculty practice plans or the large corporations known as the “teaching” hospitals of present academic health centers.

I am not implying that this will require change in ownership, or even that internal cross-subsidization should not continue, but that explicit identification of roles, responsibilities, status, and performance measures for each function must occur. The authors point out the history that has placed the department as the controlling element over the joint patient care/research/education product of today. For the next stage of development of AHCs, however, each department may need to identify explicit, distinct leadership of each function, which then would be integrated across departments, but final authority must still be placed in an individual—one each for patient care and for basic education.

To me, the greatest operational dilemma is at the interface of basic medical education and graduate medical education (GME). GME as it is organized today is predicated on a time when medical practitioners practiced in solo independent settings and the residency and its credentialing (in the manner of traditional guilds) provided the public with assurances of quality in services they could not themselves assess. Of course, also like guilds, the residency programs had control over the numbers and skills of those entering the field. In medicine this is carried
one step further, with professional academic societies arrayed in the same configuration as the specialty societies, reinforcing the departmental and subspecialty orientation of both education and service. The encouraging thing about this is that control of change lies entirely within the profession. The discouraging thing is that there seems to be little interest in the fundamental reexamination and reconfiguration that Ebert and Ginzberg recommend.

Conclusions

The likelihood of making significant progress toward achieving Ebert and Ginzberg’s recommendations depends on several very important actions. (1) We must accept a fundamental difference between formal basic education and training for specific professional roles. (2) We also must accept clear differentiation of roles, responsibility, and authority for functional aspects of work: patient care (including training), education (including the clinical aspects of formal education), and research. (3) We must recognize that medical students should not be forced to learn all of medical and scientific knowledge, but should instead be taught the basic principles and inculcated with information-gathering ability and analytical skills necessary to make appropriate judgments, and should continue to learn throughout their careers. (4) We must acknowledge that we can no longer see all aspects of the AHC as part of an inextricably joined product all in the support of education.

As we seek to reorder the boundary between education and training, the freedom (encouragement and support) of experimentation by those who pay for and regulate medical care is critical. For if public discussion of unbundling leads to penalties and withdrawal of support, these changes will not occur, and all of society will be much poorer for it. We must work to ensure that the basic social commitment of medicine is maintained, even in the face of changing payment mechanisms. If, on the other hand, change is encouraged, we will find ways to continue to attract, educate, and train the people who make our medical care the finest in the world, both today and for future generations.

NOTES

3. Association of American Medical Colleges data.