

VIEWPOINT

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Current Challenges to Academic Health Centers

Academic health centers (AHCs) have long been the exemplars of medicine in the United States. They produce “breakthrough” research, pioneer new diagnostic and therapeutic interventions, and train the best and brightest future physicians with emphasis on specialists and subspecialists. Today, they face a perilous future because the health care economic system that supports this enterprise is fading away; what Enthoven has called “cost unconscious” third-party payment for care is being transformed into “value purchasing.”¹

The challenges currently facing AHCs are more complex and more pervasive than any previously observed by faculty physicians, administrators, and boards of trustees. Unless met promptly and thoroughly, AHCs may lose their place at the apex of US health care. The challenges arise first and foremost from efforts of government and business to control the cost of care. This challenge will require AHCs to change the way they organize, price, and deliver care, with significant consequences for their research and education missions. Complicating the situation are changes in the US patient population—more ambulatory and less inpatient, more chronic and less acute illness, and more elderly persons, with different symp-

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toms, risk profiles, and responses to interventions than younger adults. Changes in the physician population will also require adjustments by the AHCs—more willingness of physicians to work for a large organization for a salary, which will help the AHCs, but more concern about a balance among work, family, and leisure, which may not.

Efforts to control the cost of care are taking many forms, most notably a move away from fee-for-service payment in favor of a bundled fee for an episode of care or some form of capitation independent of particular services rendered. The goal is to make clinicians be guided by a different criterion than in the past when choosing what services they order and provide for their patients. Traditionally, physicians in AHCs have taken pride in delivering optimal care to each patient. This has been defined from a medical perspective; it means providing every test, drug, and procedure that offers the prospect

of improving the patient’s health, regardless of cost. There is another perspective, however, which is now competing for attention, namely, socially optimal amount of care. This requires providing only every test, drug, and procedure that offers the prospect of as much or more patient benefit as its cost. This is optimal from society’s point of view because the provision of a service that confers less benefit than its cost is to use resources that could yield more benefit in some other use.

Private and public payers of care want to control cost; they are implicitly asking physicians to redefine optimal care away from the medical to the social perspective. This affects AHCs more substantially than many other clinics and hospitals where the medical optimum is unattainable anyway because key personnel and technologies are not available. That is less likely to be true at the AHC. The new criterion is usually described as eliminating “waste,” a controversial term. Everyone would agree that an intervention that provides no net patient benefit, or does more harm than good, is wasteful from any perspective. Disagreement arises over which interventions are in that category. The bulk of the savings in cost of care, however, are to be realized by eliminating interventions that offer the prospect of some benefit to some patients, but the expected benefit is less than the expected cost. Here too, more detailed, sophisticated research, free of politics, is needed to identify which interventions for which patients are in this category.

The shift from medical to social optimal care poses a sharp challenge to the research agenda of the AHC; when social optimum is the criterion, the task is much more formidable. Success will not be determined by showing some benefit from an innovation, but will require showing how much benefit for a specific patient. Only those innovations for which the benefits equal or exceed their cost will be regarded as a success.

The application of the benefit-cost criterion will be particularly problematic for new procedures that have benefits that often improve over time (and cost frequently declines) as physicians become more experienced and expert in administering the procedure. Even drugs that have chemical formulations and biological action that do not change over time may require reevaluation as experience is accumulated regarding adverse effects, off-label use, appropriate dosage, and patient selection. The challenge to researchers will be great, but so will the opportunity for them to make significant contributions to the welfare of patients and to society.

The education mission of the AHC also faces numerous challenges. Now that inpatient days per capita are

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only one-half of what they were a generation ago, how will an education system that was sharply focused on inpatients transmit an ever more complicated science and technology to the next generation of students? Even if it proves feasible (and efficient?) to place trainees in ambulatory settings, where will the funds come from to support such a system?

The cost of medical education (both direct and indirect) increases with the length of training. Financial exigencies may force AHC leaders to think seriously about shortening the length of training for some physicians instead of always lengthening training.² Today, it is the rare subspecialist who can obtain certification only 14 years after high school graduation. The top engineering schools in the country turn out specialists (there are 17 distinct options at Stanford) 4 years after high school graduation. Judging by SAT scores, the medical and engineering students at Stanford are roughly intellectual equivalents.

What kind of physicians are needed for the new world of accountable care organizations and managed competition? The demand for primary care is strong and likely to grow stronger. It is, however, unwise to think that the demand could or should be met by an increase in the supply of primary care physicians. And it is fantasy to think that this expanded supply of primary care physicians could be paid at a rate comparable with specialists. With proper organization, the majority of first-contact primary care could be met by an increase in the supply of nurse practitioners, physician assistants, and medical aides working under a "leader of a primary care team" who has been specially trained for such a role. Moreover, the leader's compensation could and should be comparable with that of other specialists. Such leaders could, where appropriate, subspecialize into pediatric, adult, and geriatric care.

The proper extent of specialization and subspecialization in medicine is a difficult question that requires much thoughtful discussion. With more than 160 subspecialties already certified in the

United States, far more than in any other country, one could argue that the United States has enough specialties. But specialization need not lead to higher cost; in the example of leaders of primary care teams, it would probably lead to lower cost. Another example is the nascent specialty "ambulatory-intensivist." He or she is a skilled physician who, with a team of nonphysician personnel, takes care of (usually elderly) patients with numerous chronic conditions. Such patients can usually be managed on an ambulatory basis,³ especially when supplemented by "e-referrals" to other specialists.⁴ Several demonstrations have shown that this approach can reduce emergency department visits and hospitalizations, and saves a great deal of money.

In thinking about the problem of subspecialization, it is necessary to realize that an increase in the number of subspecialties does not require an increase in the number of subspecialists. This can be avoided by efficient deployment and utilization. Also, the training route to subspecialization should be reexamined. The length of training of some subspecialists could be considerably shortened, once the ideal of an autonomous physician is abandoned in favor of a team approach to care. Moreover, to keep the cost of education in bounds, each AHC should not be obliged to train every type of physician. Different AHCs could specialize in training different kinds of subspecialists. More extensive use of computers and simulations can also contribute to shortening length of training and reducing the cost of medical education.

Will AHCs meet these challenges? The early responses are encouraging; some AHC hospitals and clinics are transforming into accountable care organizations, and some medical schools are experimenting with shorter training. It is not easy for academic leaders whose careers have been based on different goals and practice models to adapt to the new ones, and some resistance to change is to be expected. But the ancient Greeks were insightful when they said, "Even the gods cannot strive against necessity."⁵

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