Aligning Incentives for Academic Physicians to Improve Health Care Quality

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Academic health science centers play a leading role in the development of new knowledge, yet the quality of care in academic hospitals is on average only modestly better than that of care provided by community hospitals. However, averages are also misleading. In one study evaluating care of patients with acute coronary syndrome, 15 of the 20 top-performing institutions were community hospitals. Indeed, many organizations that have been at the forefront of the quality improvement movement, such as Intermountain Healthcare and Geisinger Health System, are not among the highest-ranked academic centers in terms of research grants and research productivity.

One reason academic health science centers do not consistently provide superior care may be the incentive structures that exist within them for academic physicians. These physicians determine not only what research is undertaken but also how clinical care is delivered and how much attention is given to quality improvement. The choices that academic physicians make, and the incentives that affect those choices, have a profound influence not only on knowledge generation but also on the quality of health care received by millions of patients.

In this Commentary, we suggest that academic physicians currently face financial and nonfinancial incentives that discourage the expenditure of time and energy on projects likely to improve patient care in their local environments. These incentives will need to change if academic health science centers are to become leaders in quality improvement.

Incentives in Academic Clinical Departments
Successful academic health science centers typically use financial and nonfinancial incentives to encourage research and teaching. Effective academic practice plans reward revenue-generating activity, respect market forces, obtain “buy in” from members, and operate transparently and efficiently. Adherence to these principles increases academic productivity (as measured by grants and publications) and the amount of clinical care delivered (and hence the total amount of revenue available to practice plan members). Although there are exceptions, academic practice plans generally do not provide substantial financial incentives for quality improvement activities, such as taking a leadership role in improving hospital-wide adherence to clinical practice guidelines or playing important but nonleading roles in regional or national quality improvement initiatives. Additionally, nonfinancial incentives such as academic promotion and peer recognition do not routinely recognize efforts to deliver high-quality health care at either the individual or the organizational level, unless these efforts are accompanied by rigorous evaluations indistinguishable from traditional research. Financial and nonfinancial incentives combine to create a milieu that rewards individual performance and discourages teamwork, even though it is widely acknowledged that cooperation and collaboration are necessary to improve health care quality.

This situation exists primarily because academic health science centers have had little or no incentive to improve quality. In the past, neither their reimbursement nor their market share depended on the quality of care they delivered. Even now, their advertisements stress innovation and cutting-edge technologies and procedures rather than quality and safety.

Choices That Individual Physicians Face
Consider, for example, the situation of a cardiologist newly appointed to an academic health science center weighing 3 options for the first few years of her career. The first option consists of improving heart failure care locally to ensure consistency with clinical practice guidelines. This work would involve numerous meetings to obtain support from colleagues and hospital administrators, local advocacy to obtain resources for a properly staffed heart failure clinic, and close attention to individual patient care. Because this hospital is far behind the leaders in the field, the work is unlikely to result in recognition outside the institution. The work is also unlikely...
to produce grants or publications. However, it would almost certainly improve local health outcomes.

The second option consists of serving as the local leader for a multisite evaluation of a new model of outpatient heart failure care that uses remote monitoring. This option would also include a significant amount of administrative work and might result in coauthorship (but not lead authorship) of several articles and coinvestigator status on several grant applications. If the evaluation proves that the new remote monitoring is successful, this project has the potential to improve outcomes. On the other hand, the project might prove unsuccessful, in which case a large amount of time and energy will have been spent on the evaluation of an ultimately ineffective technology.9

The third option consists of collaborating with a basic scientist to test a new biomarker in outpatients with heart failure; in this option, the cardiologist could enroll her patients in a clinical study of the test’s accuracy and reliability. After meeting with the basic scientist and carefully reviewing the literature, the cardiologist believes it is possible but unlikely that the new biomarker will have a meaningful effect on clinical care. However, the cardiologist also realizes that because the work is novel, it will almost certainly result in several first-authored publications and significant grant support from industry and possibly also from the National Institutes of Health. This project also will include little administrative work and can be tacked onto a high-throughput outpatient clinic, thus increasing clinical earnings.

Humans respond to incentives, and it would not be surprising if the cardiologist chose the third option.

**Solutions and Problems**

Incentives at academic centers should be adjusted not only to foster creative work that has the potential to advance the scientific frontier but also to encourage less glamorous work that will have more immediate effects on local patient care. Hospitals and other health care institutions need to align the incentives faced by their key personnel, including academic physicians, with the goals of patients and payers. In fact, persons unfamiliar with the arcane and often inscrutable “bifurcated governance” model10 within which academic physicians operate would be surprised to find that this does not already routinely occur.

Universities may not be willing to bestow academic promotion and tenure on academic physicians who are not at the forefront of discovery. Therefore, hospitals and third-party payers will need to take a significant leadership role in ensuring that physicians receive appropriate incentives to take leadership roles in improving health care quality. A combination of financial and nonfinancial incentives designed to improve local health outcomes will be most effective. The “heroes” of the hospital cannot only be physicians who achieve global renown by discovering a new gene but also must include those who improve health outcomes for the hospital’s own patients.

Realigning incentive structures will not be easy, in large part because realignment is nearly a zero-sum game. The amount of money distributed among academic physicians is not likely to increase significantly in the near future. Therefore, rewarding some physicians more implies that other physicians will be rewarded less. Some researchers will inevitably be threatened by the shift in institutional attitudes and resources. Furthermore, it is not immediately clear what set of incentives would best motivate physicians to improve health care quality. In fact, different incentives are likely to work for different physicians. Some will be more likely to change their behavior in response to monetary incentives, whereas others may be more likely to change their behavior if quality improvement activities are considered in promotion pathways or in even more subtle forms of institutional recognition. On the other hand, the external environment promoting quality and safety may force academic centers to change their incentives if they wish to maintain market share.

What is abundantly clear, however, is that academic physicians do not currently, as a community, expend enough effort on improving health care quality. An examination of the incentives they face in setting their priorities may offer an explanation as to why this is so.

**References**


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