How much does it cost to educate a medical student? At face value such a straightforward question seems trivial. Yet the complexity of income sources and lack of transparency of medical university budgeting makes the answer elusive.

In the article “Financial Implications of Increasing Medical School Class Size: Does Tuition Cover Cost?” (see page 10), Scheiffler et al take on the challenge. Having an accurate answer is of increasing importance as most medical schools are expanding or making plans to expand in the near future.

Their methodology involves the use of published (albeit self-reported) data of available funding for medical education for American medical schools and an estimate from the University of Wisconsin, as to what percentage of this funding is dedicated to actually paying for medical student education. This creative “back door” approach might indeed provide insight into the true cost, if, and only if, two basic underlying assumptions are correct—that: 1) the funding coming from these sources does correlate with true costs, and 2) the estimated percentage actually allocated to education is correct.

In reality, there is no way to know with certainty that either assumption is correct. As such, this approach may be inherently flawed. Consider the following:

The first assumption that income stream directly correlates with cost may indeed be true as it is with some common commercial products—for example, food items like eggs and milk. On the other hand, the income stream with other less competitive and more exclusive products may have little connection with cost—for example, high-end perfumes or designer dresses. With these, the cost of making the product may have little bearing on the charge set by the seller.

The accuracy of the second assumption—the estimated percentage of a given income stream directly relates to the actual cost—is also uncertain. Decisions by medical university Presidents and Deans aren’t made public. Income streams may well be partially, or even fully, fungible (excepting dedicated scholarships, endowments, and fees). Tuition dollars, then, could be shifted to support a building program, a dowry for a new department chair, research programs, or, even a different program entirely disconnected from any medical student educational costs. In short, the percentage estimate could be entirely wrong.

Furthermore, despite perennial complaints from medical school leaders as to the lack of state and federal funding, Scheiffler et al are correct in pointing out that no medical school is currently filing for bankruptcy. How then have schools achieved so much with so little? Many medical schools not only survive, they appear to thrive—expanding despite seemingly “inadequate” tuition? Have the Deans discovered how to replicate the miracle of the “loaves and fishes”? Or is it unlikely?

On the other hand, I believe the following factors, among others (not meant to be an exhaustive list) favorably affect the fiscal health of medical schools:

- Although increasing class size can increase some costs (eg, the need for more microscopes and number of small-group facilitators), other costs per student actually remain the same—for example, there is no additional cost to provide a lecture to 200 students than to 100. Further, at some schools, cadavers and microscopes have been replaced with their virtual equivalents. Teaching materials increasingly are in digital format—eg, syllabi and handouts now incur little or no printing and collating costs.
- Often, unpaid, volunteer faculty from the community (or even senior students or graduate students) facilitate small-group learning.
- Almost half of medical school learning occurs in hospital settings where students are taught and evaluated by physicians and residents who receive most or all of their compensation from other sources apart from tuition dollars. In addition, students now spend time in outpatient settings with urban, suburban, and rural practices. Often, the physicians in these practices volunteer to teach—with little or no pay from the university. Although teaching students in the office has been shown to take additional time, there may be minimal impact to the physician’s income.
- Increasingly with distance learning and related online technology, lectures and class time all have been reduced as well as the need for on-site, physician reviewers. Furthermore, if medical school education is as expensive as the authors conclude, it becomes difficult to explain the rapid expansion of osteopathic schools where student enrollment increased by 30% between 2000 and 2008. Admittedly, such schools depend on a higher percentage of volunteerism by faculty.

At the same time, they generally do not enjoy the same degree of state, research,
or endowments available to most allopathic institutions.

On the other hand, if medical schools (whether allopathic or osteopathic) currently receive adequate (or even excess tuition dollars), the question then shifts. Instead of asking “Where will additional tuition dollars be found?”, the question instead should become, “Where are current tuition dollars going?” Is there justification that the average cost of medical education has risen far faster than the cost of living?14 Are students really getting what they pay for?

Such questions certainly challenge the status quo. Answers aren’t likely to be easily forthcoming. Yet, at least some medical schools, like the Mayo Medical School, have been able to eliminate tuition as a barrier to admission.15 All students are on scholarships and any qualified student, regardless of financial institution, can gain entrance.

Clearly, the development of a more affordable and equitable tuition can positively affect the quality and diversity of the applicant pool. This, in turn, directly relates to the quality and ultimately impacts the overall health of everyone.

In conclusion, like all good research, the authors’ published work raises more questions than have been answered. At the same time, their work should call all of us to persistently and patiently press the leadership of our medical schools to provide clearer answers.

References
5. Mark 6:31-44. NIV
7. John 6:5-15. NIV

The Path We Must Pursue

There is no short cut, nor “royal road,” to the attainment of medical knowledge.

The path which we have to pursue is long, difficult, and unsafe.

In our progress, we must frequently take up our abode with death and corruption; we must adopt loathsome diseases for our familiar associates, or we shall never be thoroughly acquainted with their nature and dispositions; we must risk, nay even injure, our own health in order to be able to preserve or restore that of others.

— John Abernethy, 1764-1831, Fellow of the Royal Society and English surgeon