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Editorial

The Future of Medical Education: All About Being Connected

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The future of medical education holds many possibilities. Each possibility will unfold in different ways and at different paces for different people and organizations, but what is the big-picture view of the future of medical education? By metaphorically glancing over my shoulder at what has happened recently and noting trends underway now, can some reasonable predictions be made? It is certainly interesting to try.

PACE OF CHANGE: ADDRESSING REAL NEED

First, I believe that the pace of change will pick up. In too many ways, change in medical education—looking across the sector as a whole—is too slow. We take too long to develop and adapt what we do. Medical student education now looks too much like it did a generation ago. While many aspects of being a doctor are the same (clinical encounter, communication, clinical knowledge), much has radically changed (working in teams, leadership, nonclinical roles of the physician, uses of technology) and we do little in medical school to directly address these changes. Too many of our universities are too conservative and risk averse, and long-established medical schools can take far too long to change curricula content. The future will demand more of us more quickly.

OUTCOMES FOCUS

If I had the chance to develop a medical school or medical program from scratch, I would definitely not establish individual academic departments but would focus instead on a strong outcome statement for the medical program with clear learning outcomes articulated. I would then develop effective mechanisms to facilitate teaching across the entire health system. When will we learn that medical education is about the students—future doctors—and their future patients, not about us, the current doctors and the current system?

In the future, society will increasingly insist that we demonstrate in explicit, rigorous, and meaningful ways that our students are meeting learning outcomes. Assessment will need to be increasingly rigorous, standards based, and benchmarked within and between nations. Why would society continue to fund us unless we can show we are cost effective?

ROLE OF TECHNOLOGY

I cannot wait to see how technology will further transform our educational models. We are so far behind what some other disciplines and industries are doing. We need radical models for collaboration and the sharing of learning material. Why are hundreds of medical schools all around the world each developing the same e-learning materials?

We have amazing hardware now in the form of tablet computers and increasingly fast mobile internet services. In the future, all the content that our curricula need will be widely available as rich multimedia in super-high definition.

Who will develop the first online medical degree? I can imagine online resources increasingly comprising video lectures, virtual tutorials, rich content, and simulation exercises, complemented by real-life clinical training and experiences. Of course, clinical medicine is learned in the clinical environment, but currently we are very inefficient at managing time and human resources. We can do so much more online in preparation for high-impact and efficient clinical experiences.

ONE SIZE DOES NOT FIT ALL

Presently, most of the world processes medical students through much the same model of training that typically includes a premedical degree, medical degree, and speciality training that takes 10 to 15 years total. Will we see models of training that stream students much earlier? Do we really need a premedical degree? Will we see specialization during the medical degree itself? Do we risk fragmenting the profession as these changes happen?

At a more local level, within each medical program we typically treat all students alike; they follow the same program, curriculum, and timetable. Why can't we develop a more adaptive curriculum and learning model? Why can't students study and develop skills at their own pace and in their own sequence so long as the key outcomes are achieved and demonstrat-

ed? Using technology sensibly, and having some flexibility in the curriculum, we easily could do so.

GLOBAL SCHOOLS AND GLOBAL PROGRAMS

Accreditation is meant to ensure quality and is important. Accreditation should not stifle innovation, but it often does. Business schools are developing consortia and teaching around the world and offering their students exciting global learning experiences. Many of us, depending on our accreditation rules, are restricted from doing this sort of thing within medical education.

If we went about things in a smart way, we could develop global collaborations and even global programs that provide students with amazing learning opportunities in multiple settings with assured outcomes. Accreditation agencies need to focus on why medical education exists—ie, to ensure quality outcomes of medical education (wherever that occurs)—rather than what programs do day to day, the detail of their accreditation activities.

CONCLUSIONS

Prediction is difficult, but we live in a world of rapid change. Major trends include globalization, rapid technology developments, and the need for assured quality and accountability. For me, these issues are all about connectedness, whether among nations, systems, organizations, or individuals.

Finally, let us always remember that what matters is why we do what we do. For medical education within medical schools, surely our why is to train the next generation of doctors who will treat the next generation of patients. Starting with our why and building from there (who the patients will be, where they will be, what their needs will be, and so on) can guide us into what will be, without doubt, a most exciting future.