



PUTTING THE PATIENT FIRST

PYRAMID POWER

To understand the need for the pyramid, first you have to understand the significance of the triangle. This isn't Geometry 101, and it's not something cryptic out of a Dan Brown novel. It's a whole new way to think about academic medicine.

New problems deserve creative thinking and different solutions. When questions change, the same old answers don't work so well. This brings us to two models of academic medicine, both of them the brainchildren of Johns Hopkins physicians. One of them was developed when Hopkins Hospital opened more than a century ago; in its time, it was revolutionary, and was such a success that it remains the standard at teaching hospitals worldwide. It is represented by an equilateral triangle, showing a triple set of priorities. The order may vary from place to place, but the basic components are the same: Teaching, Patient Care, and Research.

The fact that these three goals seem self-evident shows us how far academic medicine has come. Before Johns Hopkins existed, medical education in this country was, for the most part, pretty dismal – leaning heavily on classroom lectures, with no science, no lab work, and no actual teaching how to take care of sick people. Fledgling doctors were sent out unprepared to treat the patients who trusted them. The Hopkins model established three key elements:

- Science as the basis for medical knowledge,
- Rigorous preparation in science as the prerequisite for beginning medical education, and
- The teaching hospital, an innovative fusion of hospital and medical school, as the best training ground for internship and residency.

The Hopkins model was so successful that in 1910, Abraham Flexner's famous report on medical education – which lambasted the awful state of American medical schools, in shocking detail – held it up as the ideal. Flexner recommended that all American medical schools either become more like Hopkins, with its rigorous scientific training and years of clinical "learning by doing" under skilled and careful supervision, or be shut down.

And, as historian Kenneth Ludmerer, the first Aliko Perroti Visiting Professor of Medicine, noted, Americans responded with a groundswell of outrage and pressure for change – because in the early 20th century, Americans viewed medicine as a public trust, and cared deeply about the types of doctors its schools were training. The Hopkins model became the standard throughout the United States.

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"The triangle was a great innovation, and it solved the problems of 19th-century medicine that it was designed to fix," says David B. Hellmann, the Aliko Perroti Professor of Medicine, "the lack of science, and the huge distance between the best, the average, and the worst-trained doctors. Many fine advances in medical research and patient care are the result of this triangle." But medicine today is different in many ways from what it was when the triangle model was developed. For one thing, many of today's patients would be, frankly, oddities rarely seen in the 19th century. We live a lot longer – generally more than 80 years, compared to the life expectancy of just 35 years in the 1890s. Many of us face the challenges of multiple, chronic diseases – again, not such a problem back then, when mothers often died in childbirth, and many people were done in by acute infectious diseases. Few in the 19th century, in the age before antibiotics, lived long enough to battle heart failure or prostate cancer. Back then, there was no insurance, and the cost of medical care was relatively inexpensive; there just wasn't anything like a money-gobbling intensive care room, with monitors and ventilators; the idea of spending hundreds or even thousands on medical treatment was unheard of.

But one thing remains constant, says Hellmann, "and that is the belief that medicine is a public trust. How can we give people a higher dividend for their investment – not only from our patients and their insurers, but from their taxes, through Medicare and Medicaid, and the National Institutes of Health? How can we become better?"

Over the last five years, through the Center for Innovative Medicine, Hellmann has been studying academic medicine, and he has concluded that the triangle model lacks several key features – beginning

with a focus. “We need to have an epicenter, a single priority instead of three separate missions,” he says. Hellmann proposes adding a new dimension to the model – making it a pyramid, with all sides pointing toward the patient. “Only one side of the traditional triangle explicitly focuses on the patient. The assumption is that the other two sides are focused on helping patients, but unfortunately, this is not always the case.” Research, especially, tends to become an end of its own, and in the race for academic excellence, the idea that science is a means of achieving the greater goal – helping patients – can get pushed aside.

In the pyramid model, public trust is foremost, and “the pinnacle is occupied by the patient, family, and community,” notes Hellmann. “Putting them at the pinnacle emphasizes that everything we do must benefit the patient, and society. The primacy of the patient needs to be explicit in every aspect of our work.” Putting the patient first also means a renewed emphasis on costs, appropriateness and safety of care.

Another piece missing from the triangle is collaboration. Over the years, an increasing emphasis on scientific achievement has skewed the triangle academically, says Hellmann. “Research dominates the pathway to professional rewards. Not teaching doctors how to be caring clinicians, not *being* caring clinicians. Research receives the lion’s share of the support for infrastructure.” Instead of promoting collaboration, the current model tends to spawn jealously guarded academic fiefdoms and turf battles – again, because scientists lose sight of the bigger picture, and of what should be their goal. “Our great opportunity today is to confront the epidemic of chronic disease by helping people work together,” says Hellmann. “There should be many opportunities for collaboration and synergy between doctors and nurses, doctors and patients, clinical and basic researchers in different disciplines, and among clinicians, scientists, and teachers. Answers to the health problems we face can only be achieved by teamwork.”

By definition, the sides of the triangle meet only at one point. Also, the triangle emphasizes the special role of physicians, but doesn’t highlight the critical

Hellmann and others at the CIM are working to change the academic culture at Johns Hopkins Bayview, “one step at a time,” through programs including:

- **The Aliko Initiative, an innovative program to change medical education by giving doctors the time and opportunity to get to know their patients as individuals (see Page 10);**
- **The Miller-Coulson Academy for Clinical Excellence, which gives academic medical centers the tools to define, measure, and reward the most gifted, caring physicians (see Page 18);**
- **The creation of scientific and clinical research cores, powerful building blocks that create critical mass and generate scientific momentum (see Page 14).**

Finally, any new blueprint must be carried out by people who actually build the structure, says Hellmann. “Unlike the ancient pyramids, which were set in stone, the Bayview pyramid model will be a living one, where the faculty and staff are constantly seeking ways to raise the pinnacle of patient health higher and higher.”

work of nurses, physical therapists, pharmacists, administrators, and other staff. But in a three-dimensional pyramid, no wall stands alone. “Each wall of our mission must be strengthened by the other two, or the structure doesn’t work. Because all sides are connected, this means that there are countless opportunities for collaboration.”

Finally, the pyramid has a base. In this case, says Hellmann, it’s made up of “our whole work force. The pyramid rests on a bedrock foundation of people working together for one greater good – the patient.”

Johns Hopkins Bayview is uniquely suited as the birthplace for this new model, Hellmann adds, because of its rich heritage – as Hellmann puts it, its two strands of institutional DNA. “Not only are we the home of many Centers of Excellence, with \$100 million in external funding, numerous award-winning teachers, and groundbreaking educational programs such as our Aliko Initiative, but this special place has never lost its beginnings as Baltimore City Hospital, with deep and vibrant community ties.” ■