



The Best Medicine

Atul Gawande works to learn how good doctors improve.
by Linda Heuman

The medical students leaning forward to hear surgeon Atul Gawande see someone who has set a high bar. Gawande, '87, operates at Boston's Brigham and Women's Hospital, teaches at Harvard Medical School and researches at Harvard School of Public Health. Add to that, the former Rhodes scholar is a staff writer for the *New Yorker* and writes the Notes of a Surgeon column for the *New England Journal of Medicine*. His first book, *Complications: A Surgeon's Notes on an Imperfect Science*, was a finalist for the 2002 National Book Award and *Time* magazine called it one of that year's best five nonfiction books. To top it off, in 2006 he was named a MacArthur Fellow, receiving a \$500,000 "genius grant."

It's hard to imagine Gawande as ever

bad at anything. "Playing guitar," he admitted in an interview. "I was terrible."

His subject—in this day's talk and in his new book, *Better: A Surgeon's Notes on Performance*—is improvement. At the podium Gawande reminds his Harvard audience that he once sat in this same auditorium. Not long ago, he was a doctor-in-training struggling to understand what became the topic of *Complications*: "How do you become even remotely competent at something as imperfect as medicine?" Now that he's a practicing physician he wants to know, "How do we become truly great at what we do?"

To come to his answer, he examined performance statistics comparing success rates of individual doctors and institutions. Gawande discusses a range of examples, from the risk of complications in hernia repairs to the success rates for first attempts at *in vitro* fertilization to the life-

spans of cystic fibrosis patients at different treatment centers. He reports that in medicine, "as in almost any human endeavor that is complicated, there is a bell curve. There are some who are on the poor end of the curve, there are a few who are at really the top, the great end, and then there are the vast majority of us in the mediocre middle. And there is a real distance between the bottom and the top."

According to Gawande, what distinguishes a great doctor doesn't turn out to be genius or brains, science or skill. Successful doctors don't "have a pill no one else knows about," he says. What they do have is an outstanding ability to monitor failure and learn from it. They identify and seize opportunities for small changes that end up making a big difference.

ERROR ALERT: Gawande, at center above in the operating room and at right in a bookstore appearance, says excellent physicians recognize fallibility in themselves and in hospital systems—and then act to thwart it.

Consider the success of doctors in Iraq. According to Gawande, survival rates for combat-injured soldiers in wars throughout U.S. history increased steadily over time until about 40 years before the Persian Gulf War. From that time on, despite advances in treatments and technology, the survival rate stayed at about 76 percent. The current military took note, Gawande explains, and wanted to do better.

So they tried a new procedure. Instead of giving wounded soldiers comprehensive treatment immediately at makeshift trauma units near the battlefield, surgeons now perform graduated levels of damage control, moving the soldiers from battlefield hospitals to a progression of more distant and better-equipped facilities. They treat the wounded just enough at each location to transport them to the next medical facility with the higher level of care. "Often [doctors at the front] didn't complete the operation," he reports. "They left the soldier under anesthesia, their abdomen open, and pulled a plastic sheet over them. They sent them on to Baghdad with a note on their abdomen: 'This is what we did. Please finish.'"

Gawande observes that adopting this system required the surgeons to completely change their thinking. "Your motto as a surgeon is 'trust no one,'" he says. "These doctors had to be willing to trust the next team down the line." According to Gawande, medical teams using the new system are saving the lives of 90 percent of the wounded. What made the success possible, he says, is a "willingness to recognize failure and innovate."

Gawande notes that during this war doctors on the front lines also have meticulously tracked details of their patients' injuries, treatments and outcomes. Because they had these benchmarks, researchers could notice and address patterns. Data showed soldiers were turning up with high rates of eye injuries. Why? The military looked into it. Soldiers were supposed to wear protective gear, but the eyeglasses were so ugly, no one wanted to wear them. So the military got savvy and provided cooler eyewear. Injuries decreased.

It was a lack of exactly this kind of

monitoring and transparency, Gawande suggests, that led to the failures at Walter Reed Medical Facility once those same soldiers returned home to be discharged. "The wounded soldiers had ongoing needs," he says. "But no one was doing surveillance for how well they were doing one year later, so they didn't know where the gaps were. So when someone came down on them with front-page headlines about the flaws, their only reaction was defensiveness. And that is the first sign of mediocrity."

The World Health Organization recently asked Gawande to devise a way to reduce surgical deaths worldwide within the next two years, a goal he isn't sure is even remotely realistic. "I haven't been able to figure out how to make my own hospital reduce its surgical deaths," he says with a laugh. "How am I going to fig-



ure out how to do this globally?" He brought together 50 people from all over the world—the head of surgery of a hospital in Mongolia, an anesthesiologist from Nigeria—and asked participants for their ideas. One was a checklist for operating rooms worldwide: "Is this the right patient? Do we have the right operation? Has the patient been given an antibiotic to prevent infection?" In addition to heading off potential errors, the act of using a checklist makes "the surgeon and the anesthesiologist and the nurse talk together about what it is they are about to do and consider the possibilities for where this could break down."

Willingness to change depends on humility, and humility can seem at odds

with the confidence medicine demands. "You have to have a certain degree of ego to be competent," Gawande acknowledges. As a surgeon, "you are willing to go into an operating room with just a few years of training under your belt, and put people within an inch of their lives, open them up, close them up and say you've made them better. That alone is—for want of a better word—ballsy." But Gawande has observed a key difference between the merely competent doctors and the truly great ones. In great doctors, "their ego was not so overwhelming that it prevented them from seeing the facts of the situation."

The same could be said for writers. Gawande remembers the C he got in his freshman writing seminar. "I had never seen a letter like that on my report card. I was horrified." He tried fiction writing, mainly because a girl he had his eye on was taking the class. (He and Kathleen Hobson, '88, married a few years later; they have three children.) The instructor, writer Ehud Havazelet, took Gawande aside partway through the class and suggested he find something else to do. ("Good thing he ignored me," said Havazelet via e-mail.)

A decade later, Gawande was in residency at Harvard Medical School when he received an invitation from a friend to write for the online magazine *Slate*. It was there, he says, that he learned to write, guided by frank editors. Gawande says, "In a certain way, I'm attracted to blunt criticism. I ended up in surgery where there is the general sense that when you are in training, no one is there to make sure your ego is not hurt. People put it to you straight: 'You suck at this. You're better at that. Do less of this and more of that.'" Today, when Gawande hands over an essay to the *New Yorker*, he prepares himself to see its flaws. "I always make myself think, there has got to be something we can do here that will make it better." ■

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