

PIECEWORK

By Atul Gawande

To become a doctor, you spend so much time in the tunnels of preparation—head down, trying not to screw up, trying to make it from one day to the next—that it is a shock to find yourself at the other end, with someone shaking your hand and asking how much money you want to make. But the day comes. Two years ago, I was finishing my eighth and final year as a resident in surgery. I had got a second interview for a surgical staff position at the Brigham and Women’s Hospital, in Boston, where I had trained. It was a great job—I’d get to specialize in surgery for certain tumors that interested me, but I’d also be able to do some general surgery.

On the appointed day, I put on my fancy suit and took a seat in the wood-paneled office of the chairman of surgery. He sat down opposite me and then he told me the job was mine. “Do you want it?” Yes, I said, a little startled. The job, he explained, came with a guaranteed salary for three years. After that, I would be on my own: I’d make what I brought in from my patients and would pay my own expenses. So, he went on, how much should we pay you?

After all those years of being told how much I would either pay (about forty thousand dollars a year for medical school) or get paid (about forty thousand dollars a year in residency), I was stumped. “How much do the surgeons usually make?” I asked. He shook his head. “Look,” he said, “you tell me what you think is an appropriate income to start with until you’re on your own, and if it’s reasonable that’s what we’ll pay you.” He gave me a few days to think about it.

Most people gauge what they should be paid by what others are paid for doing the same work, so I tried asking various members of the surgical staff. These turned out to be awkward conversations. I’d pose my little question, and they’d start mumbling as if their mouths were full of crackers. I tried all kinds of formulations. Maybe they could tell me how much take-home pay would be if one did, say, eight major operations a week? Or how much they thought I should ask for? Nobody would give me a number. Most people are squeamish about saying how much they earn, but in medicine the situation seems especially fraught. Doctors aren’t supposed to be in it for the money, and the more concerned a doctor seems to be about making money the more suspicious people become about the care being provided. (That’s why the good doctors on TV hospital dramas drive old cars and live in ramshackle apartments, while the bad doctors wear bespoke suits.)

During our hundred-hour-week, just-over-minimum-wage residencies, we all take a selfrighteous pleasure in hinting to people about how hard we work and how little we earn. Settled into practice a few years later, doctors clam up. Since the early nineteen-eighties, public surveys have indicated that two-thirds of Americans believe that doctors are “too interested in making money.” Yet the health-care system, as I soon discovered, requires doctors to give inordinate attention to matters of payment and expenses.

To get a sense of the numbers involved, I asked our physician group’s billing office for a copy of its “master fee schedule,” which lists what various insurers pay staff doctors for the care they provide. It has twenty-four columns across the top, one for each of the

major insurance plans, and, running down the side, a row for every service a doctor can bill for. Our current version goes on for more than six hundred pages. Everything's in there, with a dollar amount attached. For those who have Medicare—its payments are near the middle of the range—an office visit for a new patient with a “low complexity” problem (service No. 99203) pays \$77.29. A visit for a “high complexity” problem (service No. 99205) pays \$151.92. Setting a dislocated shoulder (service No. 23650) pays \$275.70. Removing a bunion: \$492.35. Removing an appendix: \$621.31. Removing a lung: \$1,662.34. The best-paid service on the list? Surgical reconstruction for a baby born without a diaphragm: \$5,366.98. The lowest-paying? Trimming a patient's nails (“any number”): \$10.15. The hospital collects separately for any costs it incurs.

The notion of a schedule like this, with services and fees laid out à la carte like a menu from Chili's, may seem odd. In fact, it's rooted in ancient history. Doctors have been paid on a piecework basis since at least the Code of Hammurabi; in Babylon during the eighteenth century B.C., a surgeon got ten shekels for any lifesaving operation he performed (only two shekels if the patient was a slave). The standardized fee schedule, though, is a thoroughly modern development. In the late nineteen-eighties, insurers, both public and private, began to agitate for a more “rational” schedule of physician payments.

For decades, they had been paying physicians according to what were called “usual, customary, and reasonable fees.” This was more or less whatever doctors decided to charge. Not surprisingly, some of the charges began to rise considerably. There were some egregious distortions. For instance, cataract-surgery fees (which could reach six thousand dollars in 1985) had been set when the operation typically took two to three hours. When new technologies allowed ophthalmologists to do these operations in thirty minutes, the fees didn't change. Billings for this one operation grew to consume four per cent of Medicare's budget. In general, payments for doing procedures had far outstripped payments for diagnoses. In the mid-eighties, doctors who spent an hour making a complex and lifesaving diagnosis were paid forty dollars; for spending an hour doing a colonoscopy and excising a polyp, they received more than six hundred dollars.

This was, the federal government decided, unacceptable. The system discouraged good primary care, and distorted specialty care. So the government determined that payments ought to be commensurate with the amount of work involved. The principle was simple and sensible; putting it into practice was another matter. In 1985, William Hsiao, a Harvard economist, was commissioned to measure the exact work involved in each of the tasks doctors perform. It must have seemed a quixotic assignment, something like being asked to measure the exact amount of anger in the world. But Hsiao came up with a formula. Work, he decided, was a function of time spent, mental effort and judgment, technical skill and physical effort, and stress. He put together a large team that interviewed and surveyed thousands of physicians from almost two dozen specialties. They analyzed what was involved in everything from forty-five minutes of psychotherapy for a patient with panic attacks to a hysterectomy for a woman with cervical cancer.

They determined that the hysterectomy takes about twice as much time as the session of psychotherapy, 3.8 times as much mental effort, 4.47 times as much technical skill and physical effort, and 4.24 times as much risk. The total calculation: 4.99 times as much work. Estimates and extrapolations were made in this way for thousands of services. (Cataract surgery was estimated to involve slightly less work than a hysterectomy.)

Overhead and training costs were factored in. Eventually, Hsiao and his team arrived at a relative value for every single thing doctors do. Some specialists were outraged by particular estimates. But Congress set a multiplier to convert the relative values into dollars, the new fee schedule was signed into law, and in 1992 Medicare started paying doctors accordingly. Private insurers followed shortly thereafter (although they applied somewhat different multipliers, depending on the deals they struck with local physicians).

There is a certain arbitrariness to the result. Who can really say whether a hysterectomy is more labor-intensive than cataract surgery? A subsequent commission has reexamined and recalibrated the relative values for more than six thousand different services. Such toil will no doubt continue in perpetuity. But the system has been accepted—more or less.

Even with the fee schedule in front of me, I had a hard time figuring out how much I'd earn. My practice would primarily involve office visits, some general surgery (appendectomies, gallbladder removals, bowel and breast surgery), and—given my interest in endocrine tumors—a lot of thyroid and adrenal surgery. Each of these procedures pays between six hundred and eleven hundred dollars, and I could expect to do eight or so a week. Multiplying the numbers by forty-eight workweeks in a year, it seemed that I could make a flabbergasting half-million dollars a year. But then I'd have to spend thirty-one thousand dollars a year on malpractice insurance, and eighty thousand dollars a year to rent office and clinic space. I'd have to buy computers and other office equipment, and hire a secretary and a medical assistant or a nurse. The department of surgery deducts 19.5 per cent for its overhead. Then, there's the five to ten per cent of patients who get free care because they don't have insurance. And, even when patients are insured some pay far less than others. Studies also indicate that insurers find a reason to reject up to thirty per cent of the bills they receive.

Roberta Parillo is a financial-disaster specialist for doctors who is called by physician groups or hospitals when they suddenly find that they can't make ends meet. ("I fix messes" was the way she put it to me.) At the time I spoke to her, she was in Pennsylvania, trying to figure out where things had gone wrong for a struggling hospital. In previous months, she'd been in Mississippi, to help a group of a hundred and twentyfive physicians who found they were in debt; Washington, D.C., where a physician group was worried about its survival; and New England, for a big anesthesiology department that had lost fifty million dollars. She'd turned away a dozen other clients. It's quite possible, she told me, for a group of doctors to make nothing at all.

Doctors quickly learn that how much they make has little to do with how good they are. It largely depends on how they handle the business side of their practice. "A patient calls to schedule an appointment, and right there things can fall apart," she said. If patients don't have insurance, you have to see if they qualify for a state assistance program like Medicaid. If they do have insurance, you have to find out whether the insurer lists you as a valid physician. You have to make sure the insurer covers the service the patient is seeing you for and find out the stipulations that are made on that service. You have to make sure the patient has the appropriate referral number from his primary-care physician. You also have to find out if the patient has any outstanding deductibles or a co-payment to make, because patients are supposed to bring the money when they see you. "Patients find this extremely upsetting," Parillo said. "'I have insurance! Why do I have to pay for anything! I didn't bring any money!' Suddenly, you have to be a financial counsellor. At the same time, you feel terrible telling them not to come in unless they

bring cash, check, or credit card. So you see them anyway, and now you're going to lose twenty per cent, which is more than your margin, right off the bat."

Even if all this gets sorted out, there's a further gantlet of mind-numbing insurance requirements. If you're a surgeon, you may need to obtain a separate referral number for the office visit and for any operation you perform. You may need a pre-approval number, too. Afterward, you have to record the referral numbers, the pre-approval number, the insurance-plan number, the diagnosis codes, the procedure codes, the visit codes, your tax I.D. number, and any other information the insurer requires, on the proper billing forms. "If you get anything wrong, no money—rejected," Parillo said. Insurers also have software programs that are designed to reject certain combinations of diagnosis, procedure, and visit codes. Any rejection, and the bill comes back to the patient. Calls to the insurer produce automated menus and interminable holds.

Parillo's recommendations are pretty straightforward. Physicians must computerize their billing systems, she said. They must carefully review the bills they send out and the payments that insurers send back. They must hire office personnel just to deal with the insurance companies. A well-run office can get the insurer's rejection rate down from thirty per cent to, say, fifteen per cent. That's how a doctor makes money, she told me. It's a war with insurance, every step of the way.

When I was going through medical training, a discouraging refrain from older physicians was that they would never have gone into medicine had they known what they know now. A great many of them simply seemed unable to sort through the insurance morass. This was perhaps why a 2004 survey of Massachusetts physicians found that fifty-eight per cent were dissatisfied with the trade-off between their income and the number of hours they were working; fifty-six per cent thought their income was not competitive with what others earn in comparable professions; and forty per cent expected to see their income fall over the next five years.

William Weeks, a Dartmouth professor, has done a number of studies on the work life of physicians. He and his colleagues found that working hours for physicians are indeed longer than for other professions. (In 1998, the typical general surgeon worked sixtythree hours per week.) He also found that, if you view the expense of going to college and professional school as an investment, the payoff is somewhat poorer in medicine than in other professions. Tracking the fortunes of graduates of medical schools, law schools, and business schools with comparable entering grade-point averages, he found that the annual rate of return by the time they reach middle age is sixteen per cent per year in primary-care medicine, eighteen per cent in surgery, twenty-three per cent in law, and twenty-six per cent in business. Not bad, in any of these fields, but the differences are there. A physician's income also tends to peak when he has been in practice between five and ten years, and then decrease in subsequent years as his willingness and ability to work the long hours wane.

All that said, it seems churlish to complain. Here are the facts. In 2003, the median income for primary-care physicians was \$156,902. For general surgeons, like me, it was \$264,375. In certain specialties, the income can be a good deal higher. Busy orthopedic surgeons, cardiologists, pain specialists, oncologists, neurosurgeons, hand surgeons, and radiologists frequently earn more than half a million dollars a year. Maybe lawyers and businessmen can do better. But then most biochemists, architects, math professors earn

less. In the end, are we working for the profits or for the patients? We can count ourselves lucky that we haven't had to choose.

There are, however, those who do choose—and manage to earn considerably more than most. I talked to one such surgeon. He had practiced general surgery at the same East Coast hospital for three decades. He loved his work, he said. He did not have an unduly heavy schedule. His office hours were from nine-thirty to three-thirty on just one day a week. He did about six operations a week. He had been able to develop a special interest and skill in laparoscopy—performing operations through tiny incisions using fine instruments and a fibre-optic video camera. And he no longer had to cover midnight emergencies. I asked him in some roundabout way how much he earned doing this. “Net income?” he said. “About one point two million last year.”

I had to catch my breath for a moment. He'd made more than a million dollars every year for at least the past decade. I wondered how it was possible, or even acceptable, to earn so much for doing general surgery. He was perfectly aware of the reaction. (As was his hospital, which did not want his or its name to appear in print for this article.) “I think doctors shortchange themselves,” he said. “Doctors are working for fees that are similar to or below plumbers or electricians”—professions that, he noted, don't require a decade of school and training. He doesn't see why doctors should let insurance companies dictate their compensation. So he accepts no insurance. If you decide to see him, you pay cash. If you then want to fight with your insurer for reimbursement, that's up to you.

The fees he charges are what he finds the market will bear. For a laparoscopic cholecystectomy—removal of the gallbladder, one of the most common operations in general surgery—insurers will pay surgeons about seven hundred dollars. He asks for eighty-five hundred dollars. For a gastric fundoplication, an operation to stop severe reflux of stomach acid, insurers pay eleven hundred dollars. He charges twelve thousand dollars. He has had no shortage of patients.

It's not clear how easily others would replicate his success. After all, he works in a large metropolis, where many people have either incomes or insurance policies generous enough to accommodate his fees. He's also something of a star in his field. “I know in my heart that I can do things that other surgeons can't,” he told me.

But suppose I did what he did—refused to deal with insurance and charged what the market would bear. I would not make millions, but I could make a lot more than I otherwise would. I'd avoid all the insurance hassles, too. Still, would I want to be a doctor only to those who could afford me?

Why not? the surgeon was asking. “For doctors to think we have to be altruistic is sticking our heads in the sand,” he told me. Everyone is squeezing us in order to make money, he said—everyone from the supply companies that we pay to the insurers who are supposed to pay us. “The C.E.O. of Aetna's compensation is now ten million dollars,” he pointed out. “These are for-profit companies. Insurance companies make money by withholding reimbursements to physicians or by not approving payment for a service we've provided.” To him, the question is why we deal with them at all. In his view, doctors need to understand that we are businessmen—nothing less, nothing more—and the sooner we accept this the better.

His position has a certain bracing clarity. Yet, if this is purely a service-for-money

business, if doctoring is no different from doing oil changes, why choose to endure twelve years of medical training, instead of, say, two years of business school? I still believe that doctors remain fundamentally motivated by the hope of doing meaningful and respected work for society. Hence the responsibility most of us feel to take care of people even when their insurers exasperate us, or when they have no insurance at all. If we fail ordinary people, then the notion that we do something special is gone. I can understand wanting to escape the insurance morass. But isn't there some other way around it?

In 1971, a thirty-three-year-old internist named Harris Berman decided to do things a little differently. He and a friend who had just completed his general-surgery training moved back to their home state of New Hampshire, to the town of Nashua. They joined up with a pediatrician, a family practitioner, and an obstetrician. Together they offered health care to patients for a fixed fee, without any bills to insurance companies. It was a radical experiment. They paid themselves fixed salaries of thirty thousand dollars a year, with no differences in income between specialties. They also bought reinsurance coverage to pay for costs that exceeded fifty thousand dollars, as Berman remembers it, in case a patient developed a catastrophic illness.

The scheme worked. Berman, who is now sixty-six years old, told me the tale. They called themselves the Matthew Thornton Health Plan, after a physician who was one of New Hampshire's three signers of the Declaration of Independence. They were essentially an H.M.O., though a very tiny one. Within a short time, about five thousand patients had signed up. The doctors thrived, and there were remarkably few hassles. In the beginning, they didn't have any subspecialists, so when patients were sent to an ophthalmologist or an orthopedist the Thornton doctors had to make an individual payment. Eventually, they asked the specialists to accept a flat fee each month and dispense with the paperwork.

"Some accepted," Berman said. "And the effect on care was remarkable. The urologists, for example, suddenly became interested in having us understand which patients they really needed to see and which ones we could take care of without them. They came down and gave us talks—how to work up patients with blood in the urine and decide which ones you had to worry about. The ophthalmologists came down and told us how to take care of itchy eyes and runny eyes. They weren't going to make more money seeing these unnecessary patients, and they found a way to make sure we became more efficient."

After a few years, the Matthew Thornton Health Plan started to be cheaper than other insurers. Employers caught on and enrollment soared. Berman had to bring in more doctors. That's when things got more complicated. "In the beginning, we were all committed," he said. "We worked hard—long hours, a lot of dedication, young and hungry. Then, as we started to get bigger and bring in more staff, we found that others joined for other reasons. They liked the salaried life style—the idea that being a doc could be a job, rather than a day-and-night commitment. Some were part-timers. We began to see people looking at their watches as five o'clock approached. It became clear that we had a productivity problem." When they tried to bring in specialists to work full time with the group, the specialists refused to accept the same salary as the others. In order to get an orthopedic surgeon to join, Berman had to pay him considerably more than what everyone else got. It was the first of many adjustments he had to make in how

and what to pay his fellow-physicians.

Over the course of thirty years, Berman told me, he'd tried paying physicians almost every conceivable way. He'd paid low salaries and high salaries and still watched them go home at three in the afternoon. He'd paid fee-for-service and watched the paperwork accumulate and the doctors run up the bills to make more money. He'd come up with complicated bonus schemes for productivity and given doctors budgets to oversee. He'd given patients cash accounts to pay their doctors themselves. But no system was able to provide both simplicity and the right balance of thriftiness and reward for good patient care.

By the mid-nineteen-eighties, sixty thousand patients had joined the Matthew Thornton Health Plan, mainly because it had controlled its costs more successfully than other plans. It had become the second-largest insurer in New Hampshire. And now it was Berman and his rules and his contracts that all the physicians complained about. In 1986, Berman left Matthew Thornton, and it was later taken over by Blue Cross. He went on to become the chief executive officer of Tufts Healthplan, one of New England's largest health insurers (where he also earned a C.E.O.'s income). The radical experiment was over.

In the United States in 2004, we spent somewhere around \$1.8 trillion—15.4 per cent of all the money we have—on health care. Government and private insurance split about eighty per cent of those costs, and the rest largely came out of patients' pockets. Americans seem to be reasonably happy with their care, but they haven't liked the prices—insurance premiums increased by 9.3 per cent last year. Hospitals took about a third of the money, clinicians took another third; and the rest went for other things—nursing homes, prescription drugs, and the costs of administering our insurance system. Physicians' after-expense incomes are a fairly small percentage of medical costs. But we're responsible for most of the spending. For the patients I see in the office in a single day, I prescribe somewhere around thirty thousand dollars' worth of medical care—in the form of specialist consultations, surgical procedures, hospital stays, X-ray imaging, and medicines. And how well these services are reimbursed inevitably affects how lavish I can be in dispensing them. This is where income becomes politics.

I remember, nine years ago, getting the bill for the heart surgery that saved my son's life. The total cost, it said, was almost a quarter-million dollars. My payment? Five dollars—the cost of the co-pay for the initial visit to the emergency room and the doctor who figured out that our pale and struggling boy was suffering from heart failure. I was an intern then, and in no position to pay for any significant part of his medical expenses. If my wife and I had had to, we would have bankrupted ourselves for him. But insurance meant that all anyone had to consider was his needs. It was a beautiful thing. Yet it's also the source of what economists call "moral hazard": with other people paying the bills, I did not care how much was spent or charged to save my child. To me, all the members of the team deserved a million dollars for what they did. Others were footing the bill—so it's left to them to question the price. Hence the adversarial relationship doctors have with insurers. Whether insurance is provided by the government or by corporations, there is no reason to think that the battles—over the fees charged, the bills rejected, the preapproval contortions—will ever end.

Given the politics, what's striking is how substantial medical payments have continued to be. Physicians in the United States today remain better compensated than physicians

anywhere else in the world. Our earnings are more than seven times those of the average American employee, and that gap has grown over time. (In most industrialized countries, the ratio is under three.) This has allowed American medicine to attract enormous talent to its ranks, and kept doctors willing to work harder than members of almost any other profession. At the same time, the politics of health care has shown little concern for the uninsured. One in seven Americans has no coverage, and one in three younger than sixtyfive will lose coverage at some point in the next two years. These are people who aren't poor or old enough to qualify for government programs but whose jobs aren't good enough to provide benefits, either. Our byzantine insurance system leaves gaps at every turn.

A few days after the chairman of surgery offered me the job, I returned to his office and named my figure. "That'll do fine," he said, and we shook hands. Now I am the one who's too embarrassed to say what I earn. We talked for a while afterward: about how to fit research in, how many nights I'd have to be on call, how to keep time for my family. The prospect of my new responsibilities filled me with both exhilaration and dread. As the meeting was ending, though, I realized that there was one final important question I had not brought up.

"What are the health benefits like?" I asked.