

The Health-Care Economy

I Nothing to Fear

by CHARLES R. MORRIS

Spending on keeping us alive and well may reach 25 percent of all national spending within the foreseeable future. What, the author asks, is so bad about that?

THE conventional wisdom is that runaway health-care costs are a major threat to the U.S. economy. Government statistics show that they have been rising faster, usually much faster, than the overall rate of inflation for almost as long as we've kept track of such things. The spread of HMOs and other kinds of managed care slowed the pace of growth for a few years in the mid-1990s, but collapsing profit margins have forced almost all insurers to file for big premium increases. Within the next twenty-five years or so, according to most recent estimates, health care could account for as much as 25 percent of the nation's spending.

Sharply rising costs are a telltale sign of low productivity, which is why analysts are so worried about health care: it looks like an abysmally unproductive sector eating up resources that could otherwise be devoted to increasing national wealth. The industry is an awkward public-private amalgam, with about half of all spending cycled through government accounts. Stories of waste and inefficiency are rampant, and Canada, England, and Germany get by with only half to three quarters as much spending on health care.

Not only conservative entitlement scourges are worried. To policy wonks health-care "reform" is shorthand for cutting costs. When President Bill Clinton introduced his ill-fated health-care-reform program, in 1993, he said that curbing spending—without, naturally, hurting quality—was essential for "our competitiveness, our



whole economy, the integrity of the way our government works, and, ultimately, our living standards.”

But there is another side to the story. This article will argue that the conventional picture of American health care is almost completely wrong, even taking into account the turbulence that currently afflicts the industry. In reality health care, or a very large sector of it, is a high-productivity, high-technology industry that is a good employer and pays above-average wages. America’s health-care bill is larger than other countries’ bills, but we buy more health care, and spending trends in almost all the other developed countries are much the same as in ours, although with a time lag. It is true that health care will consume a quarter, or even more, of national resources within a generation or so, but we can well afford that—and without giving up anything else.

Although the data are very sketchy, most health-care costs have quite possibly been going *down* for a long time. It is health-care *spending* that is rising, which is quite a different thing. As the personal-computer industry demonstrates, falling costs and improved performance usually induce more

spending, not less. In the same way, by any reasonable standard of measurement—prices, outcomes, side effects, recovery time—the cost-effectiveness of cartilage surgery, cardiac bypasses, angioplasty, hip and knee replacements, non-invasive diagnostics, whole new generations of pharmaceuticals, and even mental-health interventions has improved dramatically. Cataract surgery used to be a dangerous operation, requiring as long as a week in the hospital for only marginal improvements in vision. Now it’s a virtually painless hour-long outpatient procedure that usually restores near-normal sight; not surprisingly, the pool of potential customers is vastly larger. In any other industry that would be hailed as a triumph; in health care it sets off alarm bells.

Of Cabbages and Stents

ANYONE who doubts the wisdom of keeping fit and not smoking should watch a heart-bypass operation. In the one I observed earlier this year, at St. Luke’s Episcopal Hospital, in Houston, the patient, a middle-aged man, looked as if he had been hit by a cruise missile, lying on his back with his chest sawn down the middle and swung open like the doors of a china closet, his leg sliced and bloody where junior surgeons were “harvesting” blood vessels. The head surgeon, Grady Hallman, picked up the beating heart in his hand and injected it with a dose of potassium; after three more tremulous beats the heart stopped cold. The patient’s blood was then pumped and oxygenated by a bypass machine while Hallman cut out diseased blood vessels that were starving the heart muscles of oxygen and replaced them with vessels from the patient’s leg. The procedure, which can take several hours, is officially called a coronary-artery bypass graft (CABG, or “cabbage”). For the past twenty-five years it has been one of the core procedures in the armamentarium of cardiovascular treatments.

The presiding spirit at St. Luke’s, the home of the Texas Heart Institute, is Denton Cooley, at seventy-nine still one of the world’s greatest surgeons. “He can stitch a beating heart inside the rhythm of the beat,” one staff member told me in awe. Tall and lean, with a Lyndon Johnson drawl, Cooley was the first American to do a successful heart transplant, and pioneered many of the open-heart techniques that are now routine in medium-sized cities across the United States. “When I started here, I think I was on a first-name basis with every open-heart surgeon in the country,” Cooley says. “Now there are eight teams just in Houston.” St. Luke’s is still a mecca

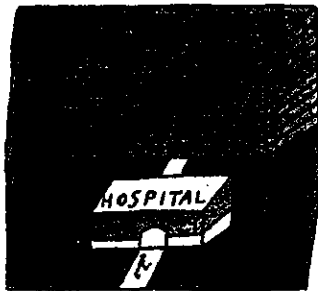


for heart surgery (it will soon perform its 100,000th bypass), but most of its cases are ones that are too difficult for local heart centers. (Cooley grumbles that the rates of success advertised by local hospitals are based on only the simplest cases.)

The awesome destructiveness of bypass operations has always made them controversial. They are expensive, and recovery periods are very long. Most people can go back to work in six or eight weeks, but a full recovery can take up to a year. The surgical wounds are typically less of a problem than fatigue and mental effects, such as depression and sudden mood swings, which can persist for months after the operation and are probably traceable to subtle biological disruptions caused by the bypass machine. The suspicion is often expressed that many surgeons are too quick with the knife; bypass surgeons have to keep their skills polished, and many states require that a bypass center perform a minimum number of procedures annually to qualify for a license. Cooley says, "There is some avariciousness in my profession, and too much pushing of numbers for the sake of numbers."

For all the suspicion, however, the evidence of large-scale overpractice is ambiguous at best. Long-term comparisons show that bypasses confer a clear and quite substantial mortality benefit on patients with moderate to severe coronary disease, and that patients with milder disease usually get relief from disabling chest pain and shortness of breath. A series of well-designed comparisons between cardiac interventions in Canada and in New York showed that New York doctors were nearly twice as likely to employ invasive techniques, but the two samples had almost identical, and low, rates of "inappropriate" bypasses (from two to six percent, depending on what standard was used). Canadian doctors tended to operate only on the most seriously ill patients, for whom the mortality benefits were clearest, and were much less likely to operate on women and the elderly. About 30 percent of the New York cases were "quality of life" patients, who had mild coronary disease but severe chest pain. There was evidence, moreover, that the Canadians were excluding patients whose lives could have been extended by surgery. Underutilization of effective procedures is no more in the interests of patients than is overpractice.

Group Health Cooperative, in the state of Washington, is one of the nation's oldest HMOs, widely acknowledged to be among the best, and known for its cautious approach to adopting new technology. Louis Zibelli, Group Health's head of cardiology, says, "We're close to the community norm in the use of these procedures. There's a clearly identifiable group of people who get a definite life-expectancy benefit depending on features of their cardiac disease. We have good data on that.



For some we have to twist their arms and say, 'If you don't have this procedure, the chances of your dying in the next five years are very high.' There are other patients about whom we can clearly state, 'You will probably live as long whether or not you have this procedure, but we can offer you improved quality of life, in terms of relief of pain and ability to function.'" Zibelli points out that most bypasses are cost-effective. The typical patient is someone "who comes into the hospital with chest pain and small heart attacks and is potentially then going on to have recurrent heart attacks," he says. "It takes

only two to three weeks cumulatively in the hospital to equal the cost of a bypass procedure. So we don't save money by putting off something that the patient will benefit from."

The drop in the death rate from coronary heart disease has been very sharp: more than 70 percent of the total increase in American life expectancy since 1965 comes from reduced cardiovascular mortality. Improvements in lifestyle—less smoking, more exercise—have helped, but at least half and possibly more of the decline in deaths from cardiovascular disease in recent years can be traced to improved treatment and management of people who already have heart disease. Michael Lesch, a cardiologist and the chief of medicine at St.

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Luke's—Roosevelt Hospital, in New York City, sums it up: "When I started practice, I basically documented how my patients died. What we do today is on a different planet."

Although total spending on cardiac medicine has risen rapidly, the inflation-adjusted cost per procedure has risen either slowly or not at all. The cost to Medicare of bypasses, including follow-up care, rose only about three quarters as fast as the rate of inflation from 1990 to 1996. A broadly gauged study led by David Cutler, of Harvard University, which probed the actual costs associated with a large and carefully drawn sample of patients who suffered heart attacks from 1983 to 1994, found that per-patient costs either were rising very slowly or, if one took into account improved mortality rates, actually fell by about one percent a year.

St. Luke's, in Houston, has always prided itself on having surgical costs that are a third to a half lower than those in oth-

er academic medical centers. Michael Jhin, the hospital's president, says that charges per patient are down by 7.5 percent over the past five years, or about 18 percent after inflation. That hasn't happened by chance: the hospital's attention to detailed process management is reminiscent of the re-engineering of American factories a decade or so ago. Sterile corridors connect procedure rooms to minimize expensive inventory and to allow staff members to swing quickly from one room to the next. Computers track each operation second by second for quality control and analysis. Standard practices are constantly re-examined to see if they make sense. For example, it had long been the custom for postoperative bypass patients to spend at least two days on ventilator support. The surgical and nursing staff developed a detailed protocol for early removal of ventilator tubing from the healthier patients and got faster recoveries, fewer lung complications, shorter hospital stays, and more-satisfied patients.

Even more important, the classic bypass is slowly giving way to much less traumatic interventions. New clamping systems permit many more beating-heart surgeries, avoiding the side effects of the bypass machine; other advances allow many patients to skip open-chest procedures entirely. For example, surgeons can now use cardiac stents—springlike latticed metal tubes—to create permanent scaffolding for damaged blood vessels. Stents are inserted by threading a catheter through a leg artery to the point of cardiac blockage. The cardiologist inflates a tiny balloon that pushes open the artery and uncoils the stent, and then withdraws the catheter and closes the incision in the leg. The entire procedure takes an hour or so. The patient is fully conscious, and can usually resume a normal schedule within a couple of days. The newer stents are infused with anti-platelet medications to prevent the sticky formations that precede a reblockage; St. Luke's is experimenting with "hotwire" stents that use tiny doses of radioactivity to kill the arterial cells that produce blockage debris. Although the number of cardiac patients is rising rapidly, the number of bypasses is dropping for the first time in the hospital's history. Few hospitals can match St. Luke's record on cost control, but the same efficiency-consciousness is spreading throughout the industry. A careful analysis by a Medicare commission of inpatient hospital spending showed that from 1992 through 1996 per-patient hospital costs fell by 2.7 percent per year after inflation, owing to greater efficiency of service and reduced lengths of stay.

Costs vs. Spending in Health Care

COLLECTING cost information was a major challenge for David Cutler's study, illustrating how difficult it is to get good data on health-care costs. The major payers, Medicare and managed-care plans, have long since switched to a variety of quasi-flat-rate payment schemes that have only an indirect relation to costs, but government data still often report official "list" prices—which are mostly fictions and bear

almost no relation to costs. The official data also typically mix up input costs and units produced. Until last year, for instance, the medical consumer price index tracked only hospital per diem rates, without taking into account shorter average stays or the substantial shift of procedures to an outpatient basis. Then there are substitution effects. Bypasses and stents are treated as different products, even though stents are often bypass substitutes. In the same way, the use of thrombolytic drugs after heart attacks raises the national pharmaceutical bill but dramatically reduces the rate of rehospitalization for follow-on attacks. The government has embarked on a major effort to upgrade its health-care-expenditure data, but it will be the work of years.

The few empirical studies that have been completed tend to show a steady reduction in real costs. A study of four large employer health plans, for instance, showed that the cost of treating depression, which is one of the most expensive of all chronic illnesses, fell at an annual rate of more than five percent, before inflation, during the early 1990s, owing to the availability of Prozac and similar medications and the development of a range of successful short-term psychotherapies. (The depression study included only patients who were treated in accordance with federally recommended guidelines, although most patients receive much lower levels of care.) Similarly, although the raw cost-index data on cataract surgery suggest annual cost increases of about four percent after inflation, correcting for the number of patients treated produces a long-term real annual unit-cost reduction of about one percent, without attributing any value to the vast improvements in surgical outcomes. Jack Triplett, an economist at the Brookings Institution, who has edited a collection of the most recent research, says, "Too many people simply equate the increase in spending with runaway costs—that was an important motivator for the Clinton health-care program. If that were an accurate view, you could fix the problem just by rolling back prices, and nobody would get hurt except maybe doctors and drug companies. This recent research suggests that that is too simple a view."

Only a small number of cost studies have been completed, and researchers naturally picked fields in which they were likely to see the results of rising productivity. But although there may be little hope of savings in, say, nursing-home care, productivity improvements are obvious in other areas. Take orthopedics. About 250,000 Americans get new hips each year, and about as many get new knees. Joint implants are beautifully engineered assemblages of bars and ball joints that embody a continuous stream of improvements, such as cementless bonding and new high-tech materials, including bio-active substances that fuse readily with natural bone, all designed to improve implant reliability and life expectancy. Over the past five years, according to Ned Lipes, a group president at Howmedica Osteonics, a major implant manufacturer, competition among equipment companies and aggressive buying tactics by the biggest users have driven down the price

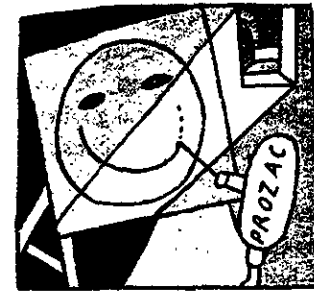
of implants by about a fourth. Hospital stays for implants are being cut in half, and rehab times have decreased too, while improved mobility has kept a lot of seniors out of nursing homes. Advances in medical imaging show similar progress, replacing invasive and sometimes dangerous procedures—for example, myelography, which requires injecting x-ray-reflective fluid into the spinal column.

At a recent “summit” on health-care costs the Secretary of Health and Human Services, Donna Shalala, said that health care is the only industry in which technology increases, rather than decreases, costs. But the Secretary has it backward. New technology has the same effect on health care that it had on John D. Rockefeller’s oil industry, on Henry Ford’s Model T, and on today’s cell phones: it decreases costs and expands markets. Until a decade or so ago gall-bladder surgery was an open-abdomen procedure, and many patients put up with chronic pain and discomfort rather than risk the operation. Now gall bladders are almost always removed laparoscopically. The surgeon makes four small incisions in the abdomen, inserts a tiny camera and a light, clips off the gall bladder with a mini-tool, and pulls it out through one of the incisions. The patient goes home the same day, and usually misses only a day or two of work. Arthur Leibowitz, the chief medical officer of Aetna U.S. Healthcare, says that fees for gall-bladder surgery are about half what they used to be, and inpatient hospital costs have been virtually eliminated, but the company’s total gall-bladder bill has risen, because surgeons are now more likely to recommend the procedure and patients are more willing to undergo it.

Cancer is one of the few major diseases that have been resistant to breakthroughs, in part because it subsumes such a bewildering variety of cellular malfunctions. But since 1991, for the first time ever, cancer-mortality rates have begun to edge down. David Golde, the medical director of Memorial Sloan-Kettering Cancer Center, in New York, says, “We have been making steady gains, but we haven’t made a dramatic step in the most common cancers. In lung cancer, which is the biggest killer, chemotherapies sometimes let us shrink tumors

to the point where they are surgically accessible—so there’s progress, but it’s incremental. On the other hand, we now expect to cure the great majority of cases of testicular cancer, which was uniformly fatal, although it’s rare. The effect of new combinations of drugs has been dramatic. The survival rate in childhood leukemia used to be a couple of months, but now we expect to cure most patients. Hodgkin’s disease is another great success, and we’ve made substantial progress in the other lymphomas.”

“Overall,” Golde says, “I think we’re seeing a real acceleration in advances. Our pharmaceutical industry is superb. It’s hard to make heroes out of them, but after all, who *really* figured out the AIDS drugs? Most of the companies now have big cancer programs, and there are enough advances in basic science to provide the substrate of knowledge



to bring huge resources to bear on analyzing disease pathways and genes from a drug-development perspective.”

If Golde is right, progress against cancer portends considerable new spending on anti-cancer pharmaceuticals. The difficult truth is that almost all improvements in health care increase spending over the long term. From the perspective of a cost-cutting reformer, the single greatest catastrophe of recent years has been the success of the drive against smoking. Smokers tend to die early and quickly. But someone who stops smoking in time can make it onto the Medicare rolls in good shape and burn up health-care dollars for decades. The rate of heart attacks has fallen slowly over the past twenty years, but the death rate from heart attacks has been cut by more than half. Thus the pool of people who have survived heart attacks, and consequently need careful medical management, is now very large and growing, driving up medical spending. The astonishing increase in the longevity and the vitality of the very old is perhaps the purest demonstration of the effectiveness of modern health care—but that success, coupled with the aging of Baby Boomers, promises equally astonishing increases in spending on health.

Can We Afford Modern Medicine?

THE primary accusation against modern medicine is not that it doesn’t work but that it’s an unproductive drain on the economy. If we “were able through health reform to achieve a level of spending comparable to other countries,” according to a Commerce Department report of several years ago, “the United States could save about 4 percent of GDP. Those savings could be reallocated to investments in other areas . . . thus enhancing the U.S. competitive position.”

TECHNOLOGY

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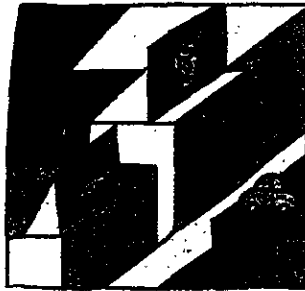
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Sherry Glied, a young economist at Columbia University, argues that this conventional view is mostly nonsense. "What do they want us to spend it on?" she asks. Certainly, it's hard to argue that America is an underconsuming nation. This is a country in which new houses are half again as big as they were twenty years ago, and bursting with gadgets; where citizens drag their sagging bellies from VCRs to \$30,000 four-wheel-drive sport-utility vehicles; and where a book like Juliet Schor's *The Overspent American: Why We Want What We Don't Need* is a best seller. There are plenty of poor people in America, but that is mostly a problem of distribution, not of resources. A scandalously high number of Americans are without health insurance because of a lack of political will, not of economic capacity.

Worries over a shift of resources from the "productive" economy into health care also ignore the world-beating competitiveness of America's pharmaceutical and medical-equipment sectors. For instance, the profile of Medtronic, a leading manufacturer of medical devices, looks very much like Intel's ten years ago. Medtronic's sales are about the same as Intel's were then and are rising about as fast, and the company spends about the same percentage of revenues on research and development. The cardiac pacemaker, one of its core products, has evolved from a clunky contraption the size of a small soup bowl which imposed a rigid, metronome-based beat on the patient's heart to an intelligent pocket-watch-sized device that adapts its rhythm to the patient's breathing. Paul Citron, Medtronic's vice-president for science and technology, says the company maintains active research-and-development programs in microelectronics, physiology and physiological algorithms, biomaterials, implantable power sources, and biomedical engineering. About 40 percent of Medtronic's sales are to overseas markets, which is about average in the medical-equipment industry.

In any case, the "squeezing out" argument is grossly overstated. Glied points out that the share of national income devoted to food and health care combined hasn't changed for fifty years. But we spend a lot less than we used to on food and a lot more on health care—just as we spend a lot less on clothing and a lot more on housing. Meanwhile, overall income growth has freed up mega-resources for Arnold Schwarzenegger movies, stealth bombers, and interactive pornography. Careful projections by government researchers in 1992 showed that absent "reform," the twin forces of technology and demographics would drive health-care spending to about 27 percent of GDP by 2020, and to about 32 percent by 2030. The projections assumed a very modest economic growth rate of 1.1 percent a year through 2030—a much lower rate than we've actually achieved in the 1990s. Remarkably, though, even un-



der this assumption of slow growth, the projections show the non-health-care sectors of the economy *continuing to grow*, at a rate of 0.8 percent a year. In other words, since health care is still a relatively minor fraction of the economy, it can grow very fast for a long time and yet leave plenty of income for even more VCRs and behemoth cars.

Glied also challenges the notion that health care is unusually inefficient. "Relative to what?" she asks. "Universities are pretty inefficient, and so are banks. Everyone complains about health-care overhead, but it's about the same as in most other

industries, maybe even lower. There is this notion that health care should be only doctors and nurses, but nobody thinks that General Motors is just the guys on the production line." She continues, "We could really reduce the cost of a flight on the New York-Washington shuttle if we didn't let a plane take off until every seat was full—which would be ridiculous. But if an MRI machine is unused part of the time, we call it waste, as though convenience didn't count for anything. In England they make people wait until the machines are ready; in America we tend to think that machines should do the waiting." Although there's plenty of waste and fraud, Glied says, it's not a large percentage of the total, and the cost of root-

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Another favorite nostrum, reducing medical spending in the last year of a person's life, is probably a blind alley as well. Michael Lesch, the St. Luke's-Roosevelt cardiologist, says, "If I *knew* which patients were in their last year of life, maybe I would treat them differently." Bruce Vladeck, who ran the Medicare program during much of the Clinton Administration, says that 27 percent of Medicare dollars are spent on people in their last year of life, but only a small fraction of that amount is spent on people whom medical professionals *expect* to die. In fact, recent data suggest that people with slow-acting terminal cancers or degenerative heart disease are now much more likely than they once would have been to die in hospices or at home, but such "palliative" care is also surprisingly expensive, especially if it involves round-the-clock nursing. Vladeck says, "We should do a much better

job than we do in managing end-of-life treatment, but it won't be a big money-saver."

To a great extent the bad reputation of health care stems from economic scoring systems that track what's easiest to count. Gouging coal out of mountains to run power plants so that we can waft cool air over the brows of investment bankers is totted up as "industrial production"—an unambiguous increase in national wealth, like jet-skis and video games. But new hips that allow people to walk, intra-ocular implants that restore their vision, stents that put them back to work, are classified as nonproductive "services" that somehow make us poorer. The economist William Baumol, a leading authority on productivity measurement, says, "Quality is very difficult to measure and translate into money terms. It's nobody's fault; it's just the nature of the beast." Certainly, the work by David Cutler, Jack Triplett, and their colleagues suggests that there's a lot of room for improving the data, but wealth and productivity are necessarily more ambiguous in today's world than when we measured progress in bars of iron and ears of corn.

At the end of the day the problem with health-care spending is not that it's inefficient but that it's *redistributive*. Each year the small fraction of people who are very sick account for the lion's share of health-care spending. They are different people, of course, from year to year, and the odds are that all of us, once or twice in our lives, will take our turns as

mega-medical consumers. Since none but the very wealthiest families can sustain the cost of big-ticket medical episodes, the risk has to be partially socialized, either privately through insurance or publicly through the tax system. I may not want to help pay for your heart attack, but I'll need you to kick in, one way or another, for the cost of my cancer.

Whatever minimally adequate health-care-financing system we eventually muddle toward will inevitably contain leveling components. Families on the lower third or so of the economic ladder simply can't afford the full cost of adequate private medical insurance, and neither can most marginal employers. Americans don't like statist solutions, usually with good reason, so we will maintain our commitment to the current mixed public-private framework, with all its ideological messiness. But even if most providers are private companies, the public sector will inevitably play a larger role in paying for an ever-expanding range of "basic" health-care services.

Politicians don't like facing up to issues like these—better to pretend that the financing issues will disappear if we just crack down on "waste and fraud." But it's wrong to assume that tax-financed health care is inherently less productive or socially beneficial than private-sector spending—indeed, in our Jerry Springer, consumer-binge culture, the opposite may well be true. Moreover, a growing health-care sector may carry positive benefits for the American job market.

The Career Machine

A DECADE ago Robert Reich, the Secretary of Labor in the first Clinton Administration, sounded the alarm over a bifurcating American job market, foreseeing a spreading income gap between knowledge workers with one or more degrees from top universities and the great mass of workers stuck in dead-end jobs. Health care is a refreshing exception to Reich's paradigm. St. Luke's-Roosevelt operates a huge outpatient-surgery center on New York's West Side that—to a visitor with expectations tuned by *The Hospital* and similar movies—seems impressively efficient. Service is brisk, queues are short, and a scoreboardlike electronic screen allows friends and relatives to track patients' progress through prep, surgery, and recovery. The majority of the workers I saw were young people of color, handling millions of dollars' worth of high-tech equipment with competence and professionalism.

The city's public community colleges have long since adapted their curricula to the burgeoning opportunities in the health-care sector for medical-records assistants, nuclear-medicine technicians, laboratory assistants, physical and occupational therapists, dental hygienists, paramedics, geriatric and dietetic assistants, and many more. Catherine Farrell, a professor and the former associate dean for cooperative education at LaGuardia Community College, says, "Most of our students are minorities or immigrants who have to work. Health care, in their eyes, is a very hot, very high-status field. They like the precision

FOG

My son has built a tent-cabin
in the front room and invited in the dog.

He has constructed an imaginary machine
with an invisible lever, for catching the fog.

Fallen clouds drifting through the valley
along the river bottom, up and over the lines

and folds and contours of the hills, coulees
and benches, combed by cottonwoods and pines,

break softly against the windows
like thought or breath, then pass on.

The fog got in the house,
he says. I am catching it with this.

—GREG PAPE

of health care—they know they have to master the science courses—and the service ideal is very appealing. The students with the basic skills and the perseverance to get through a two-year program all get snapped up on the job market, and I'd say about two thirds eventually finish a four-year degree so that they can keep moving up the career ladder. I walked through a big hospital a little while ago, and former students were just coming out of the woodwork. It was very exciting for me, because they were getting good salaries, and were thrilled with their jobs."

Health care was once a low-wage, dead-end field, with doctors roosting comfortably at the top of a job pyramid filled out with underpaid nurses, orderlies, and aides. In 1950 health-care workers earned about two thirds of the average wage. By the mid-1990s, however, with rising capital investment per worker, health-care wages had risen to about 109 percent of the economy-wide average. In addition, U.S. pharmaceutical and medical-equipment companies, with annual sales of about \$170 billion, pay better than the average manufacturer, because of medicine's demanding quality requirements. Health-care spending, moreover, unlike spending for cars, television sets, clothing, and oil, tends to stay home. The alarm over rising health-care spending suggests that the money is somehow dribbling away into outer space rather than being recycled into the pockets of a growing new class of professional workers.

Turbulence and Transition

THese are turbulent times for health care. Price pressures have left doctors feeling rushed, harried, and second-guessed. Tens of thousands of articles are published in medical journals each year. Drug companies flog their products in "Ask your doctor" television ads. Boomers surf the Web for the latest treatments for their aging moms. Medical practices jostle with fast-food chains for space in Florida's strip malls. Even as they orchestrate round after round of Medicare cutbacks, both political parties are moving toward adding a very expensive pharmaceutical benefit to the basic Medicare package.

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Health care is undergoing a fundamental transition. The old pattern of solo-practitioner medicine has been irrevocably destroyed by the burgeoning of medical technology, but a workable new model has yet to emerge. Michael Lesch asks, "How do you keep the benefits of the marketplace—innovation, competition, lower prices, patient choice—without its drawbacks? Do you think Ford cares whether you really need three cars? And do you think drug companies really care if you need the medicine? They just want you to buy it. How do we stay a profession with some market elements, and not

become a business that's just out for profits?"

One response has been the "evidence-based medicine" movement. Scott Weingarten, M.D., is the president of Zynx, a research and consulting firm that specializes in establishing evidence-based health-care-management practices.



"There are things that the science shows work, and work well," Weingarten says. "But there are big gaps between what we actually do and what we ought to be doing—and that includes in the finest academic medical centers in the land. Technologies that don't work, or are actually harmful, are being used throughout the United States." Anti-arrhythmic drugs are a prime exhibit for evidence-based medicine. Disruptions in cardiac rhythm often accompany heart attacks, and when certain compounds were found to be effective in smoothing out arrhythmias, they were widely prescribed. It all seemed very sensible, until clinical studies showed that some of the leading anti-arrhythmics actually *increased* death rates significantly. The drugs remain on the market, because they are useful in specialized cases, but some analysts worry that they are still being prescribed much more often than they ought to be.

A core problem, according to David Eddy, a guru of the evidence-based-medicine movement, is that the profession doesn't think quantitatively. Only about 10 to 20 percent of standard medical practices have ever been subjected to random clinical trials, and physician surveys show an extraordinary range of opinion on the effectiveness of common procedures—sometimes zero to 100 percent! Consensus guidelines, Eddy says, like those for cholesterol screening, seem almost perversely designed to waste money and miss the high-priority patients at the same time.

The case for evidence-based medicine seems irrefutable, though it is too often promoted just as a way to cut spending. But there is no intrinsic reason why good medicine should cost less: for every improper practice eliminated, there may well be another useful intervention from which patients will benefit. The vast majority of people with major depression, for example, get no treatment at all. Washington's Group Health has rigorously implemented evidence-based principles and vetoes

any new technology not supported by high-quality data. Although Group Health rejects far more candidate technologies than it accepts, its medical arsenal still constantly expands. A new Medtronic implant that can be startlingly effective against Parkinsonian and other tremors, a radioactive "seed" implant for certain prostate cancers, a prosthetic device to improve female urinary incontinence, stomach surgery in cases of morbid obesity, a neural stimulator for intractable epilepsy—all have recently made the cut. Although the organization can legitimately claim that its medical spending is unusually intelligent, costs and premiums are about the same as its peers'.

Delivering high-quality science-based medicine to an aging population will grow ever more complex. Patients with multiple chronic disorders won't match the "pure" cases selected for clinical trials, and the growing list of plausible pharmaceutical interventions greatly increases the risk of dangerous drug interactions. Effective management of an older, sicker population will require vast new investments in information technology just to begin.

Once again, glimmers of the future can be seen at Group Health. The great majority of spending goes for a relatively small number of patients with chronic conditions—cardiovascular disease, diabetes, and depression are among the most expensive. Group Health has therefore built a chronic-disease management system that uses electronically linked prescription records, test results, and best-practice treatment pathways to alert doctors when patients may be heading for trouble, and to track whether they're getting proper care. On standard federal quality measures—for example, keeping heart-attack patients on beta-blockers to prevent follow-on attacks—the organization scores around 90 percent, or about double the national average. Dorothy Teeter, Group Health's vice-president for quality and information systems, says, "Our belief when we started was that you could improve quality and decrease costs—that it wasn't an either-or kind of thing. What we found with our chronic diseases was that in fact we stabilized the costs, and they're starting to go down just a touch, which is fairly unusual when you think about chronic disease." Computer-assisted prescription-monitoring systems (which warn a doctor that, say, the stimulant she prescribed for her patient's asthma will counteract the beta-blocker he's taking for his heart) are also becoming standard among the larger health plans.

There are no panaceas. It will take many years and hundreds of billions of dollars to build the information infrastructure needed for quality disease-management systems. Efforts to improve the patient-information base may also run afoul of privacy laws and a growing clamor for free choice of providers, even in managed-care plans. Prescription-monitoring systems can work only if they encompass all the pharmacies a patient might use, and Group Health's chronic-disease system is effective only for people receiving care within its clinics,

where access to the entire case record is possible. In short, although the vague outlines of the evidence-based and information-linked health-care system of the future may be taking shape, there are huge gaps, and no obvious ways to bridge them. The only certainty is that the ride will be bumpy—and very expensive.

Embracing the Inevitable

ALMOST half a century ago the oldest Baby Boomers entered first grade; from 1950 through 1970 the school-age population (five to nineteen) nearly doubled, and school spending after inflation quadrupled. And those Boomers didn't vote.

Ever since the end of the Second World War the national economy has been defined by the life passages of the Baby Boomers. Only compare the smooth seas of the nineties—when Boomers settled into placid, productive middle age—with the turmoil of the 1970s, when unskilled Boomers poured into the job market. Yet policy wonks still treasure the delusion that we as a nation will somehow *decide* what share of resources should be claimed by health care, when the demographic facts have already decided it for us.

Good planning may help around the edges, but the shift to a health-care-based economy will inevitably be a messy one, complicated by the inevitable shift of resources toward the public and nonprofit sectors. One consolation is that almost all our international competitors will be undergoing the same kinds of demographic upheaval, often more severe than ours.

Where will the health-care dollars come from? Some will come from the Boomers' own pockets. Expect a more sharply tiered medical system, with basic coverage for all seniors and elite care for those who can afford it. Boomers will find the money by retiring later, working harder, liquidating assets, and borrowing against their houses. Much of the money will come from steeper payroll taxes (and a lot of the people paying them will be working in health care, or selling things to people who do). And some of it will come from holding down fees paid to doctors and hospitals. The medical establishment got a huge windfall when Medicare was first passed, and part of that will be clawed back in the decades ahead. It's too bad that different doctors got the windfall, but there's nothing in the Constitution about generational equity. Paying off the national debt would help a lot too. Then the government could start borrowing again when Boomer medical spending peaks, spreading the costs over a couple of generations.

A leading medical analyst recently wrote that "doubling or tripling health care expenditures would be intolerable." But in fact the doubling or tripling of health-care spending is a virtual certainty. As Gen-Xers would say, "Get over it!" Let's start thinking about how to make the transition no more traumatic than it has to be. ☼