

Health Care:

The Impending Cost Crisis

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Introduction

Health care in the United States is on a dangerous course. Rising costs and technological revolution threaten to upset domestic health care in somewhat unforeseeable ways; the future playing field could take on a number of radically disparate, significantly-altered forms. Government, entrepreneurs, scientists, the general population, and other factors will shape that field; the decisions made have serious implications and will lead us to very different outcomes.

Amid massive uncertainty, the rising cost of health care and the aging citizenry should give us pause. This, combined with the popular opinion that good health care is the right of all citizens and therefore should be provided by the government, shows that the prominent clash is readily apparent. In this debate, which holds very direct implications for everyone, passions are high. Without reason and restraint, a very dangerous conflict could indeed escalate to endanger the health care industry and every individual who relies on it.

Running alongside the fundamental conflict of rising costs and limited resources is a flurry of other vital issues: biology and engineering research promise revolutionary technologies that will reshape our approaches to severe diseases but will challenge our ability to manage the technologies we create. Forty-four million citizens remain uninsured. Global threats to the environment and water will continue to leverage stronger effects on human health. Each of these issues will involve a government response on domestic and international levels. A rationality, a long-term outlook, and a calm that is not typical of any government will be required to avert catastrophe. While this article will focus on domestic aspects of health care, tangential issues in global health care will also be analyzed as needed.



Figure 1. Expensive prescription drugs are one of the many factors raising the cost of health care.

The Cost Crisis: An Impending Crunch

Different actors in the health care world hold diverse opinions about optimal policies, as diverse as the selection of actors themselves: doctors, economists, scientists, researchers, Congress, other politicians, and health care consumers (more or less the whole nation) shape their opinions based on their own experiences in practicing, studying, and receiving health care.

The United States, the only industrialized nation that does not guarantee health care for all citizens, spends over \$1.6 trillion on health care annually, which is 16 percent of our GDP. This amount is higher than that of any other country; the next closest is Canada at 10 percent of its GDP. This number has been steadily on the rise: in 1950, health care expenditures were just 5 percent of GDP, and they've risen at 7 to 10 percent every year since. Progressing this way, we'll spend an astounding 40 percent of GDP on health care within 75 years. This will mean

a significant shift not only in private spending patterns but also in public ones as the government accounts for half of all health care spending.¹

The reintroduction of deficits under the Bush administration, and the threat they pose to the financial health of the nation and the world, has brought new attention to government spending patterns. Currently, all projected government expenditures exceed all projected revenues by \$43 trillion. Of that, \$36 trillion is attributable to growth in the Medicare program. Social Security accounts for \$7 trillion. If the government enacts no relevant policy changes within the next five years, the fiscal imbalance will climb to nearly \$54 trillion by 2008, and it will increase by \$1.6 trillion annually until necessary changes are made.²

Here we see one possible consequence of the coming trials. For the government to provide health care as an entitlement, even to continue in the minimal way that it currently does, a substantial expansion of the government's role in the economy and a great deal of increased taxation to fund increased spending will be required. Such a dramatic expansion of influence in the economy, and the regulations and controls that would accompany such an expansion, could have dramatic effects on the development of health care in the United States and, thanks to the this country's leadership in health care innovation, consequences for the entire world. Assuming other federal funding patterns grow in predictable, constant ways across the rest of the budget—i.e., assuming that we don't do something like eliminate the military to buy more health care—revolutionary increases in taxation will be required to fund the spending expansion.

Resistance to the creation of such a socialized state could mean a paradigm shift in the opposite direction, away from government controls and toward a state in which healthcare is treated like any other commodity, bought and sold on an open, free market and provided only in very small quantities by the government. However, commentators today critique the very notion of any variability in health care depending on one's ability to pay. If a socialized state would be politically unpalatable, a system as laissez-faire as this might be more so.

What factors drive the unceasing growth in health care costs? MIT Economics Professor Jonathan Gruber, a former treasury official under the Clinton administration, contends that it is the development of better goods and services especially given the existing quality of most areas of health care. Our ability to treat heart disease has advanced tremendously and is prepared to take another leap forward with the introduction of new stent technologies. Heart problems that were at first unsolvable, and then addressable only by dangerous, invasive surgery, are now addressed with preventative medications for blood pressure and cholesterol control, better surgical techniques, and simple stents, which prop open veins to ease blood flow. In 1950, for instance, a skiing accident meant a week in the hospital, six weeks on crutches, a

few more months of recovery, and long-term bad knees. Now, after a quick surgery, that unfortunate skier can resume athletic training a few weeks later. Or consider that babies of low birth weight perished at a rate of 2 percent in 1950; now it is one third of one percent.³

Conditions can still improve when broad indicators of the nation's health, such as lifespan and infant mortality rates, don't shift much. MIT Professor of Chemistry and Biological Engineering John Essigmann notes that advances in areas like chemotherapy and facial reconstruction technologies make immeasurable differences in the quality of people's lives, even if they do not lengthen them significantly.⁴ Cancer patients, given just extra months or years to live, can settle emotional and logistical affairs in a way that leaves them with a greater sense of peace about their fate. Victims of disfiguring accidents are better able to have normal appearances restored, vitally improving their day-to-day interaction with others. These therapies allow people to live longer, more comfortable lives. In most areas of medical treatment, there has been revolutionary improvement, and costs have increased likewise. Prescription drugs make this phenomenon exceptionally visible. Drugs that combat a wide variety of ailments and disorders have vastly improved the quality of life for afflicted individuals.

Gruber offers a hardnosed analysis of the traditionally proposed solutions to solving health care costs. One perennially proposed solution is to eliminate fraud and lower administrative waste. There is a huge amount of both administrative waste and actual wasted health care; that is, health care delivered superfluously, without significant or even noticeable benefit to the recipient. On average, one third to one half of health care delivered is wasted. Medicare's critics attack that program for spending one third of its resources on individuals in their last six months of life; they likewise criticize the program for tolerating thousands of cases of theft and extortion involving home health care workers and the elderly patients they serve. Administrative costs are even more dramatic: health care bureaucracy cost \$294.3 billion in 1999, \$1,059 per capita—about three times the per capita administrative cost in Canada.⁵

Many common procedures have not been evaluated for their cost effectiveness and thereby generate significant waste. After knee surgery, for instance, the former common practice was to carefully scrape and clean the area just operated on. The cleanup procedure nearly doubled the cost of the operation. However, when researchers analyzed the effects of the procedure, they found it had no impact: Neither patients nor objective evaluators could differentiate those surgeries that had included the cleanup and those that had not. Dr. Alan Sager, a professor of public health at Boston University, estimates that 75 percent of diagnostic and clinical procedures have not been evaluated for their effectiveness.⁶

Reducing this waste, though, is quite difficult—as it generates no long-term solution to the impending health

care crisis, Gruber is especially critical of it. A great deal of wasted health care is not known to be wasted until after the fact. Doctors generally do not know when a patient is going to die, for instance, and may recommend expensive therapies that ultimately fail to prolong the patient's life significantly. This reasonable practice generates a statistic of health care "wasted" on a patient on the edge of death. More problematically, reducing waste does not help solve the question of resource allocation to health care: Gruber calls his estimate that 10 percent of health care costs could be trimmed by such measures "optimistic." Even assuming that level of savings, with health care costs growing at about 10 percent annually, it would buy the nation nothing more than a one-year reprieve.

As health care expenditures grow proportionately to the percentage of GDP, simply capping expenditures as a percentage of GDP seems like an attractive idea. Dramatic expansion of government intervention in health care is a distinct possibility. Instead of the current hodgepodge of ad hoc regulations, entitlements, and subsidies, the government could simply take more complete and comprehensive control of health care delivery and manage its expenditures quite precisely. Gruber considers the idea of shifting to a planned allocation of GDP for health care via some mechanism of political control draconian. Indeed, ceding to a central planner the right to identify what percentage of national economic output will be spent on purchasing health care for citizens does not conform to traditional American free economic practices.

Dr. Sager, though, considers such regulation the only solution to the impending crisis. He foresees a radically different future for health care. Sager is a codirector of the Health Reform Program at Boston University, which seeks to "design practical solutions to health care problems—solutions that address the needs of all parties."⁷ He proposes a neocorporatism of sorts, creating a new arrangement between pharmaceutical companies and the government. A politically appointed regulator, be it a board of doctors, an appointed official, or an elected panel, would grant the pharmaceutical industry a certain amount of resources and guidelines on how to use them. Those companies could then distribute these as necessary for research, marketing, or profit.⁸ His ideas are not too distant from those of Dean Baker, a well-known critic of the pharmaceutical industry, who proposes that all pharmaceutical research be nationalized and any drugs resulting therefrom be sold at marginal cost. Baker considers patent protection an outmoded form of economic protectionism that hurts consumers and that needs to be eliminated.⁹

Sager purports to be "the drug companies' best friend." By this arrangement, he says, the companies will spare themselves the revolutionary political wrath of the enraged masses.¹⁰ In response to future waves of popular fury about unaffordable drugs, candidates will run for

Congress with the promise to nationalize the pharmaceutical industry, Sager predicts. Surrendering this private industry to political control now will preempt a bloodier fate later—a fate that would destroy the industry and cast dire implications on the future of world health care. He considers industry resistance to such a proposal shortsighted stating, "We know what's better for them."

Control of the pharmaceutical industry is one aspect of Sager's revamped health care system that would shift control into the hands of doctors and government. Having allocated some percentage of GDP to be spent on healthcare, doctors would have the managerial power to make decisions about which treatments would be delivered and which treatments would not. Doctors, after all, are best informed about which treatments are needed and what their costs and benefits are. Sager cites the HMO Kaiser Healthcare as an organization that has done an optimal job of empowering doctors to make these decisions.

Drugs: The New Battleground

Sager's plan, although it goes further than most, aligns him with prevailing contemporary political forces. Their true intentions aside, both Republicans and Democrats shape their rhetoric around the need to provide health care to all who need it. Sager's is one variant among many that would increase the role of government in the delivery of health care; his is designed to generate an entirely new structure for the industry, while others address problems piecemeal. Universal health care schemes have come and gone. The Clintons famously failed to launch such a plan in the early 90s and even that was attacked by the Left as a kowtow to HMOs. Voters in Oregon recently rejected a referendum on implementing a similar statewide system.

Initiatives that do not go so far as to nationalize health care but instead restructure small pieces of it have made more progress in adding on to those programs already long established. Federal and state programs to expand insurance availability, the most recognizable being Medicare and Medicaid, have been met with success.¹¹ Created by the Social Security Amendments of 1965, Medicare provides the elderly with health insurance, while Medicaid provides insurance to the poor.

When created, Medicare did not cover prescription drugs, because these were a very small part of the treatment toolbox and coverage was not deemed necessary, but pharmaceutical usage and costs have grown dramatically since then. Recently, costs have expanded sharply: Prescription drug costs comprised 9 percent of health care's total costs in 1990, but rose to 15 percent by 2002.¹² Prescription drug usage is no longer an exception but part of the standard approach to ailment. Double-digit cost growth is expected to continue for at least 10 years. Certainly, new prescription drugs have made a direct impact on citizens' quality of life, and their absence would be painful: A 1991 study showed that

when New Hampshire restricted the number of prescriptions covered by Medicaid to reduce costs, drug use in the program fell 35 percent, but nursing home admissions jumped 80 percent and returned to normal levels when the restrictions were lifted.¹³

Congress recently added a prescription drug benefit to Medicare, at an estimated cost of \$534 billion.¹⁴ The bill, though, was not a bipartisan victory; it was a bipartisan defeat. Both parties were dismayed at its final state: Republicans, because they consider it a gargantuan expansion of federal spending, and Democrats, because they consider it a giveaway to drug companies that provides little in the way of actual aid to seniors in need. However, it includes provisions that each party considers a step toward the health care system they'd like to achieve. For Democrats, it moves to a system in which the government acts as steward of the nation's medical needs and provides for all. For Republicans, it moves to a system giving responsibility for and control over health care directly to citizens.

The bill subsidizes prescription drug delivery by private insurance companies instead of trying to make the government directly provide them. Its pricing structure is indeed somewhat awkward: The government covers 75 percent of drug costs above \$250 and below \$2,250, none of the drug costs between \$2,250 and \$5,100, and 95 percent of costs above \$5,100 to provide catastrophe support.¹⁵ This limits citizens' out-of-pocket drug expenditures to \$3,600 per year, plus 5 percent of expenses over \$5,100. Economists scorn the \$2,850 gap between the first level of support and the third level of "catastrophe" support, called the "donut hole," as an irrational cost structure. A preferable one could offer increasing support as costs increased. The new funding structure will not begin until 2006. Until then, drug discount cards will be made available, granting on average a 13 percent discount and giving low-income individuals \$600 to spend on prescription drugs.¹⁶

Republicans have mixed feelings about the bill. Fiscal conservatives are bothered by the massive expansion of government expenditures. The Bush administration originally estimated the cost to be \$400 billion but quickly shifted that number up to \$534 billion, and the ultimate cost will likely be far higher than that. "This is going to be a down payment," says Senator Ted Kennedy (D-MA), the most influential Democrat in the health care arena. "We're going to come back again and again to have a more expansive program."¹⁷

Adding insult to injury for advocates of smaller government, a significant amount of that spending will displace private spending that already occurs. Preliminary Congressional Budget Office estimates suggest that private employers would eliminate coverage for approximately a third of seniors, knowing that those seniors could instead rely on the government entitlement.¹⁸ How to counter such an effect? Senator Bill Frist (R-TN) originally imagined legislation forcing companies to main-

tain their plans, but instead Congress opted for more spending: An \$88 billion subsidy has been included to encourage employers to maintain the health benefits they provide to retirees.

For conservatives, the redeeming factors amid this chaos are the aspects of the bill that portend privatization of Medicare, although most consider any such victory Pyrrhic, given the stunning expansion of costs. Part of the bill authorizes the creation of Health Savings Accounts. Although the precise rules and regulations regarding the accounts are many, the general idea is that the accounts function as a tax incentive for people to save their own money for health care. Individuals can make annual, pretax contributions to the accounts of up to \$5,000 (a number to be adjusted annually) and can withdraw funds tax-free to pay for any health care costs such as medicine, surgery, dental care, etc. Funds can be withdrawn for other expenses, but standard taxes are paid on those withdrawals.¹⁹ This is the first step toward shifting responsibility for health care decisions and their associated costs into the hands of individual citizens. In South Africa, similar accounts were implemented in 1994 upon deregulation of the insurance industry, and there, where they competed against other forms of health coverage on a level playing field, they captured more than half of the market for private insurance after six years.²⁰ By making the cost of health care more visible to individuals, the accounts reduced spending: Younger families cut their outpatient and inpatient costs by 56 percent and 81 percent, respectively, while senior households did so by 47 percent and 73 percent.²¹

Democrats have similarly mixed feelings. While they consider that government provision of prescription drugs is at least a step in the right direction, leading Democrats nonetheless consider the bill a travesty. "We're horrified," says David Bowen, an advisor to Senator Kennedy (D-MA). "This is not the bill we should have had."²² Leftists are most angered by a provision in the bill that disallows the government from negotiating lower prices on drug purchases from the pharmaceutical companies. Some analysts have calculated that at least 61 percent of the new prescription drug subsidy is windfall profit to pharmaceutical companies because the companies will merely make more pills at low marginal cost and sell them for full or nearly full price.²³ Bowen, Sager, and many others lament that the real problem is the bill's lack of price controls.

Indeed, there is significant popular sentiment for dramatically increasing control over the pharmaceutical industry, driven by a litany of complaints against the companies. The industry is consistently among the most profitable in the nation. Pharmaceutical companies spend a large part of their budgets on marketing. A great deal of pharmaceutical research is spent on developing "me-too" drugs, imitating competitor's blockbuster medications. Ultimately, prices are simply considered to be too high. The low marginal cost of making more pills rein-

forces that impression: It costs cents to directly manufacture a pill, and when its price is an extreme multiple of that, consumers feel cheated. Drug companies also come under attack for their reliance on publicly funded research to produce their new products, whereby pharmaceuticals take research performed in university laboratories funded by the National Institutes of Health (NIH) and use it to develop a drug. Moreover, drug prices are not uniform internationally; American consumers pay significantly more for prescription drugs than do consumers in other countries.

Yet none of the attacks on the drug companies hold water. The development of copycat, “me-too” drugs would seem a natural fit to counter consumer complaints about prices. They introduce competition to expensive, brand-name drugs that might command an artificially high price thanks to their monopoly in treating a certain ailment. While drug companies are profitable, companies such as Coca-Cola and Microsoft are often more profitable than pharmaceutical companies. The real estate industry, commercial banks, savings institutions, and the software industry generate profits like those of pharmaceutical companies.²⁴ Furthermore, it is difficult to find a good reason to assume control over pharmaceutical companies marketing practices, any more than for any other good or service. In a free economic system, entrepreneurs have the right to distribute information as they see fit, and consumers to seek it and act on it as they see fit. While drug companies, doctors, and patients more or less fit into that paradigm, doctors ultimately must write prescriptions for consumers to get drugs, so a level of expert control is included to reduce risk. Assuming control over the budgeting priorities of private corporations would indeed be an extreme measure.

More substantive is the complaint that drug companies hijack publicly funded research efforts and exploit them for profit. Most such research is sponsored by the NIH, through which nearly \$30 billion a year is allocated to various research efforts. Twenty-seven institutions focusing on different areas of research related to diseases and organs comprise the NIH, which allocates 85 percent of its budget to various research agents such as universities, medical schools, research institutions, and small industry via a grant system. On average, 45 percent of each grant goes to overhead costs such as power and heating, security, and real estate space; the remainder pays for equipment and salaries for principal investigators and grad students. Grants are allocated by an extensive peer-review method, thoroughly protected from political influence, that is well-respected and a point of pride for the NIH. In addition to sponsoring such third-party research, the NIH performs in-house research on its campus in Bethesda, MD, and other campuses nationwide with 10 percent of its budget. The NIH runs the popular PubMed Web site, a repository of scientific papers used throughout the worlds of academia and

research; it is the most popular government-run Web site.²⁵

Detractors to the NIH are scarce. The institutes have consistently funded useful, sound research projects that have borne tremendous benefits for the nation, both directly and indirectly. To cite one example from many available, the “war on cancer” launched by President Richard Nixon in 1971 involved extensive, basic research into the functioning of viruses, which were considered a possible cause of cancer.²⁶ That research, though not very useful in the war on cancer, proved extraordinarily useful to understanding retrovirals in the 1980s as HIV emerged, and it will continue to yield benefits as new viral threats emerge. Such unintended benefits of research are vital to scientific progress, and they’re more easily pursued in publicly funded environments rather than private ones where budget pressures are more likely to restrict researchers to the pursuit of profitable products as quickly as possible.

The NIH does not feel itself the victim of a hijacking; it considers the relationship symbiotic. Michael Gottesman, the NIH Director of Intramural Research and a cancer researcher, dismisses the charge that pharmaceutical companies unfairly hijack NIH research to create their drugs. While NIH research can provide the seed research for a new drug, the drug companies turn that initial research into a usable product. A pharmaceutical company might take a project built on a small NIH investment and spend \$500 million to \$1 billion developing it into its end state, says Gottesman. He considers the “profit potential” for what critics call exorbitant industry profits vital to the creation of new drugs. The world’s drug creation, he notes, is driven by companies in capitalist countries where their efforts can yield huge profits. He adds that “the pharmaceutical industry does more R&D than the NIH; and a lot more if you add the biotech industry.”²⁷ While Dean Baker imagines the federal government completely subsuming the pharmaceutical industry, the opposite is as feasible, if not more so: Companies with the most to gain from the NIH’s research could, theoretically, fund that research themselves in the absence of the NIH.

The process of R&D is itself in the midst of challenge and change. Innovation has slowed: In 2003, the FDA approved only 21 new drugs, down from 53 in 1996.²⁸ Automation processes introduced a decade ago have not paid off as expected: Combinatorial chemistry machines synthesize various compounds on the fly and test them for potential use as drugs. The cycle repeats, tweaking and optimizing the compounds based on the results of the screening and testing.²⁹ Although that automated approach has not been able to replace the sheer luck associated with a great deal of drug discovery, it is under continuous refinement and may prove useful yet. Industry-wide decentralization of research is another possibility: Small, dynamic biotech companies stand at the forefront of many research efforts today. The big

drug companies could see their role shift to one like that of movie studios, whereby they purchase a good idea from a small pharmaceutical outfit and oversee its production, marketing, and distribution.³⁰ Revolutions in genomics and proteomics have yet to become the industry workhorses of their potential.

While industry R&D is in flux, Gottesman's observations make clear the unintended but devastating consequences that could result from price controls, profit caps, or other such regulations. Without the profit incentive to drive the creation of new drugs, that creation could very well cease, stalling progress toward current medical dilemmas and, more frighteningly, leaving us less able to fight unforeseen, future threats. Regarding the link between profits and progress, F.M. Scherer, a health policy expert and emeritus professor at the Kennedy School of Government, draws a close link between profits and R&D investment in the pharmaceutical industry. He is wary of attempts to regulate them. Government attempts to control price "risk undermining the ability of drug companies to fund the lengthy and difficult process of discovering and developing new medicines."³¹

Gottesman's views are not politically popular. Politicians have taken to unbridled attacks on drug prices in the past few years and have taken up the complaint that drugs are cheaper in many foreign countries than they are in the United States. The question of prices across borders has been a controversial one. For a long time, the pharmaceutical industry and their backers simply denied that there was any difference in pricing. That's not the case; there is a difference. Yet the issue remains contentious, especially with regard to Canada. Senior bus trips to Canada to buy prescription drugs have received extensive news coverage, and Illinois even proposed a statewide program to reimport drugs from Canada at lower prices to control health care costs in the state.³² Other states and private pharmacists have similar plans.

But while many big-name, new drugs are cheaper in Canada, drugs that patients more commonly use are more expensive. Twenty-one of the 27 top-selling generic drugs cost more in Canada, and in total, on average 37 percent more expensive. Examining drug purchases in total instead of comparing the prices of selected drugs, economists from the Wharton School found that if Americans had paid for the drugs they bought in 1992, they would have saved just 13 percent.³³ Although the price difference has widened since then, generics remain more expensive in Canada. Furthermore, most goods, not just drugs, cost more in the United States than Canada, including cars, Internet service, and CDs. Any traveler to Eastern Europe or other recovering economies who has paid fractions of domestic prices for goods and services can attest to these price differences. Drug producers, like other producers, make more of their money in markets where consumers can afford higher prices. If prices were to be forced down in the United States, it would most likely mean an increase in prices in other parts of the

world, as drug companies would seek to preserve their business in the face of regulatory threat. The income generated here would have to be made elsewhere: The United States generates 45 percent of new global drug sales, versus just 14 percent in the United Kingdom, 8 percent in Switzerland, and 33 percent in the rest of the world.³⁴

In Europe, problems associated with controlling drug prices abound. Introduction of new medicines can be long delayed as drug makers negotiate price structures with each European government. Some governments simply ban new drugs that they consider too costly, and officials will likely ban several new anticancer drugs for cost reasons. To resist costs, officials can delay approval of a drug, tightly restrict prescriptions, or choose not to provide state hospitals with funds to cover the drug costs. Such policies make little sense economically or otherwise; they result in more hospitalizations, which are far more expensive than costly drugs.³⁵ A combination of low prices and permissive doctors works against those cost control efforts. The U.N.'s International Narcotics Control Board reports that Western Europeans take among the most tranquilizers and antidepressants in the world.³⁶

Many who advocate for price controls attack the patent system itself, whereby a company that invents a drug and wins a patent on it has the sole right to sell that drug for a given period of time before others can produce its chemical copycat and sell it at just above marginal cost. Dean Baker attacks patents as an unjust cost imposed on consumers. By his calculations, eliminating patent protections would have saved consumers an estimated \$79 billion in 2000.³⁷

Patents are, in essence, a form of property rights that grant to creators the right to the product of their thought and effort. Essigmann, who has been involved in the creation of multiple biomedical startup companies, considers patents essential to the ongoing creation of new drugs and technologies. In his talks with venture capitalists, Essigmann reports that one of the first questions asked is the strength of the technology's prospective patent position. "Patents create incentives," he says, and thereby drive research. Researchers like Baker spend a great deal of time analyzing the costs that the patent system brings to consumers; unconsidered, though, are what the costs would be in human lives and happiness if those patented drugs were not created in the first place.

Companies often come under attack for applying for patent extensions based on trivial alterations to their drugs in order to extend the life of the patent and wring more profit from it. According to Essigmann, abuses do happen, but they are the exception. He is skeptical of assigning evil intentions to pharmaceutical companies, and he cites the example of Simvastatin, Merck's predecessor to Lovastatin. By a simple chemical alteration to Simvastatin, Merck was able to double the biological half-life of the drug—if not doubling its efficacy, then certainly improving it. The renewed patent gave Merck sev-

eral more years of monopoly protection on the drug, and more profits likewise.³⁸ It was a case in which Merck found a useful drug, patented it, but continued research in the meantime, to find a useful improvement in the course of that research—honest science, and typical of industry research, says Essigmann.

Conservative commentators often contend that excessive, mismanaged FDA regulation drives up drug development costs and keeps useful treatments out of the hands of the patients who need them for too long. The FDA approval process is indeed long and arduous, involving a wide array of studies and multistage clinical trials. An accelerated approval process is set aside for drugs that are immediately needed, but that process is not perfectly applied. Erbitux, a drug treatment for late-stage, metastatic colon cancer, recently gained approval under the accelerated program. During the two years during which the FDA bottled up the application to duplicate trials, 100,000 Americans died of colon cancer who might have lived longer and better had Erbitux been available.³⁹

Essigmann, however, speaks well of the agency. "Their thoughtful, careful approach has saved lives," he says, referring to cases when drugs have reached the market elsewhere under less stringent control and ultimately proved to be dangerous. He cites the infamous case of thalidomide, in which women in Europe and Canada used the drug to treat morning sickness. Those who took the drug in early pregnancy gave birth to children with severe birth defects such as missing or shortened limbs.⁴⁰ "In the eyes of some, the FDA is sluggish, but in my eyes, they do a good job." Speeding up their work would be difficult, but would involve overcoming a shortage of examiners and offloading more of the cost of clinical trials to the companies that petition for drug approval.⁴¹

Insurance and Health Costs

When politicians speak about health care, the two issues they invariably mention are the uninsured and the rising costs of drugs and health care. The two problems are closely related. Rising health care costs severely test the strength of the insurance system that is designed to pay for them. The insurance market is beset with a slew of skewed incentives, awkward regulatory structures, and beliefs about the universal desert of health care, which make this an exceptionally messy system to consider.

The most relevant aspect of health insurance with regard to excessive health care costs in the United States is the government's subsidization of employer-provided health care. Employers can purchase health insurance for their workers in addition to their traditional compensation, but while regular pay is subject to the full array of income and payroll taxes, health care benefits are not. The result of this \$120 billion subsidy is exactly what classical economics predicts: The subsidized product is

purchased in greater quantities than is needed. Economist Gruber cites a landmark insurance study, the RAND Health Insurance Experiment, whereby subjects were given insurance plans with different fee structures, ranging from high premiums and low copays to low premiums and high copays. The results of the study dramatically revealed the extent of surplus health care purchased: Those with the lowest premiums and highest copays used half as much health care as those with more generous insurance plans, but were just as healthy. Much of the health care consumers purchase does not actually improve their health, but because generous, subsidized insurance plans disguise cost of that health care, it is purchased anyway.⁴²

This cost control problem relates to the 180 million Americans who have health insurance, 90 percent of which is purchased through employers. The other 10 percent is purchased through the nongroup market. Forty-four million Americans are completely uninsured. They consist mostly of the working poor, with incomes of \$25,000 to \$40,000, 150 to 300 percent of the poverty line. The demographics get tricky at this point, though: Most of the uninsured are in an income range where most people are in fact insured—that is, a majority of those with incomes between \$25,000 and \$40,000 are insured. In that income range, some employers provide health insurance and some do not.⁴³



Happiness lies in the joy of achievement and the thrill of creative effort.
—Franklin D. Roosevelt

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The problem facing policy makers is how to get the tuna but not the dolphins, as Gruber puts it. The government would not want to introduce a policy that would cause employers to cancel health insurance for those in the \$25,000 to \$40,000 bracket and let government assume its costs. Bush's health savings plan won't help this group much: although it lets people set aside a few thousand dollars tax-free for healthcare, nongroup insurance plans generally cost \$10,000, thanks to a weak nongroup insurance market. Gruber estimates that this would let about 2 million of the 44 million uninsured purchase health insurance.⁴⁴

The difficulty of purchasing health care outside an employer health plan shines a bit of light on the workings of the health insurance market. Thanks to the law of large numbers, insurers can sell plans to employers with thousands of workers at a highly predictable cost. They can safely bet that a certain number of the insured will get sick and need expensive treatment, but most won't, and insurance will function in the way that it's designed, a way to share costs and reduce risk. When individuals or even small businesses with few employees attempt to purchase health insurance, they introduce an adverse selection problem. The sick, and those who will make more expensive use of their insurance plans, are more likely to try to purchase individual health insurance and will drain the company of funds. Individual or small-group purchasers are much more likely to get denied, because insurers don't want to risk the potential for losing money on them.

This is a problem that could be severely exacerbated by the advent of advanced diagnostic technologies. Right now, insurance functions like a lottery, but in the future, increased information will change that. As it becomes easier to predict the likelihood of falling victim to diseases with costly treatments, it will be hard to convince insurance companies to cover those who will likely need expensive treatment. It becomes not a matter of risk aversion but of not wanting to give away money via an insurance plan that's sure to cost the company, and consequently other plan-holders, a great deal more than its price. Furthermore, it is not easy to legislate around that problem. Laws demanding that insurers offer plans to everyone result in extraordinarily expensive insurance plans, as one would predict.

Alternative Solutions

While drugs and insurance are currently the primary political health care issues, other important questions and issues deserve our attention. Currently, most medicine focuses on treating diseases after they strike their victims. Increased efforts toward preventive medicine could result in huge, system-wide savings on drugs and hospitalizations. Current cost structures include perverse incentives that pay hospitals for offering treatments but pay them nothing for working with their patients such that they

never need hospitalization in the first place. By preventing sickness, the hospital loses money.

Quoted in the *New York Times*, Dr. Brent James, who leads a network of 21 hospitals in Utah and Idaho, lashes out strongly: "The health care system is perverse. The payments are perverse. It pays us to harm patients, and it punishes us when we don't."⁴⁵ His hospital network educates doctors about the most effective treatments for pneumonia, saving 70 lives a year. By giving proper drugs to more patients suffering congestive heart failure upon their discharge from the hospital, 300 lives are saved and 600 hospitalizations avoided. Each of these good practices costs Dr. James's hospital network huge sums of money in lost reimbursements. Crafting a new incentive structure without such perverse incentives would be a boon to the industry and to the population.

While constant technological change has consistently driven both costs and quality of health care upward, a combination of preventive techniques and new technologies could begin to lower the net cost of health care. Just as computers today are much more powerful and much less expensive per unit of computing power than their predecessors, thanks to technological advances, drugs and therapies can spare patients severe ailments and the need for accompanying expensive treatments. Placing more emphasis on drugs and therapies that make health care more efficient could radically drive down costs over the long term and sharply limit the growth of expenditures even as populations age. Cost expansion would be more tightly limited to the margin of technological advance.

Technological advances can likewise help radically improve quality and safety controls in health care. Dr. Harvey Fineburg, President of the Institute of Medicine, an associate organization of the National Academy of Sciences, cites quality control as one of the most serious problems in health care, noting that between 48,000 and 96,000 people die annually due to easily avoidable medical errors⁴⁶ mostly medication and prescription errors that could be corrected by implementing simple, digital prescription management systems to replace current handwritten ones. Further digital information integration in hospitals would also help with misdiagnosis and misreading of bed charts, another weak area of health care quality control.

Our lifestyle and behavioral choices will determine a great part of the future of health care. Doctors and other experts cite the growing consciousness of the health risks posed by nicotine as one of the most important health developments of the last 50 years. As people have chosen in greater numbers to reduce their smoking, they have become healthier. A new, similar issue looms; obesity has been on the rise in America for decades. Just as nicotine exacerbates a wide variety of diseases, so obesity causes and complicates many ailments. Massive subsidies to agricultural producers remain in place, encouraging the

development of food production just when the nation needs it the least. Legal and regulatory fights involving the food industry are just getting under way.

Conclusion: Addressing the Cost Crisis

While a great deal of the controversy over pharmaceuticals is based on a misunderstanding of property rights and the process of discovery and innovation, the problems posed by the insurance market will force the country to come to grips with more difficult political and philosophical questions. It may become the case, for instance, that the insurance market will only be preservable in the face of increasing information if the government forces each citizen to purchase health insurance; right now, indications are that if insurance were not given a tax subsidy, only half the population would choose to purchase it.⁴⁷ The decision to insure the nation would involve overriding the preferences of half the population.

More generally and more immediately, health care's treatment in public rhetoric portends a difficult future. Politicians attack the notion of a two-tier health care system, resisting the idea that there should be any variability in the health care that citizens receive. An Institute of Medicine report on the uninsured in America declares that "health care coverage should be universal, continuous, affordable, and sustainable for society."⁴⁸ Many institutional voices consider health care a right: from the American Medical Students Association to the United Nation's Universal Declaration of Human Rights to any number of political voices.⁴⁹ "Universal health care in America is long overdue," says AMSA National President Dr. Lauren Oshman.⁵⁰

However, claims that treat health care as a right reverse the definition of a "right." In political philosophy, rights are a sanction of independent action. The rights outlined by America's founders are a recognition of natural rights: The fundamental right is that to life, which

entails the right to liberty, by which people can preserve their lives, and the right to property, the material goods by which they can do so. These rights derive from life itself. It is the government's role to protect them, and any individual who acts to violate them is in the wrong. Treating as a right scarce goods that need to be created by effort and work such as health care, or food or housing for that matter, implies that by the very act of living, one can lay claim to the productive efforts of others. Instead of a right, that is a relationship of indentured servitude—not a sanction of independent action but a destroyer of it. In discussing health care, the often irresistible temptation is to insist that it's different because without it, people will die. Even though health care keeps people alive, and as much as we would like it to be freely available to all, health care stubbornly obeys the rules that apply to any produced good. Trying instead to treat it as a right is ultimately a destructive act.

Gruber's solution to the impending crisis is simple. Given the challenge of the distribution of scarce goods, he describes something much like a free market: Establish a system with proper incentives in place, and let the system run. Historically, free markets have tended to operate more efficiently and with greater benefits to all participants than have socialist or command economies. Still, many consider control the only solution. Until the government has the ability to set prices of drugs and adjust them as it sees fit, if not to more completely regulate all health care budgeting and operations, costs will not be manageable, says Sager.

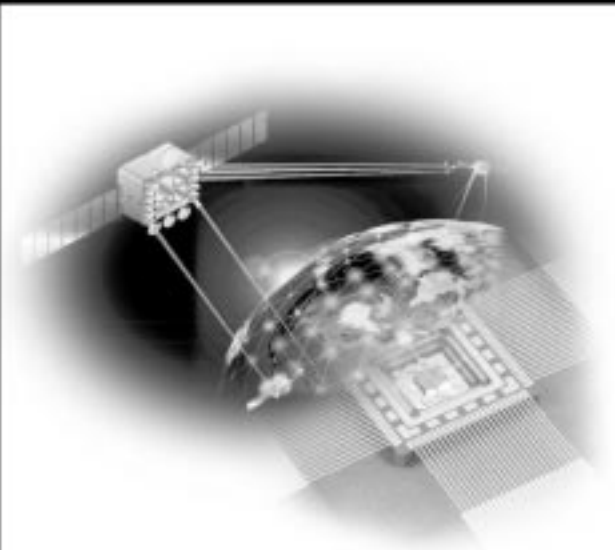
The growing drumbeat demanding more central planning and control over drug makers, doctors, and employers bring to mind Friedrich Hayek's remarks regarding planned economies that in such a system, the arbitrary preferences of the central planners are bound to replace the wants of rational consumers, leading to utter waste and inefficiency. In response, Sager notes that "we'd have to try to ensure that that doesn't happen."⁵¹

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