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A Few Hard but Useful Truths

If we truly want to reform health care in this country, we need to start by addressing four key facts about health care in the United States today. Unless we understand those four facts and deal directly with each one, I believe health care reform, universal health coverage, a consumer-driven health care marketplace based on actual value, and continuous and systematic quality improvement in care delivery will all be unattainable goals.

So what are those four fundamental facts? They are pretty basic, but they need to be clearly stated so we can incorporate them into our thought processes, discussions, and problem-solving approaches. The four key facts are that (1) health care costs are unevenly distributed in America, (2) care linkage deficiencies abound—and can impair or cripple care delivery, (3) economic incentives significantly influence health care, and (4) systems thinking isn't usually on the health care radar screen. Those four realities underpin our current health care dilemma. Dealing directly with each of them will point us toward a practical and achievable health reform solution.

Truth One: Care Costs Are Unevenly Distributed

The first key fact we all need to understand clearly is that health care costs are not distributed evenly across the American population. A very small number of patients spend most of our health care dollars.

Let me make this point in very clear and simple words: any attempt to reform or improve health care expense and cost levels that does not understand and then deal directly with that key cost distribution fact is doomed to fail.

So how skewed are our health care expenses? Very. The specific numbers vary a bit from population to population, but the patterns of spending are the same for every set of people in America.

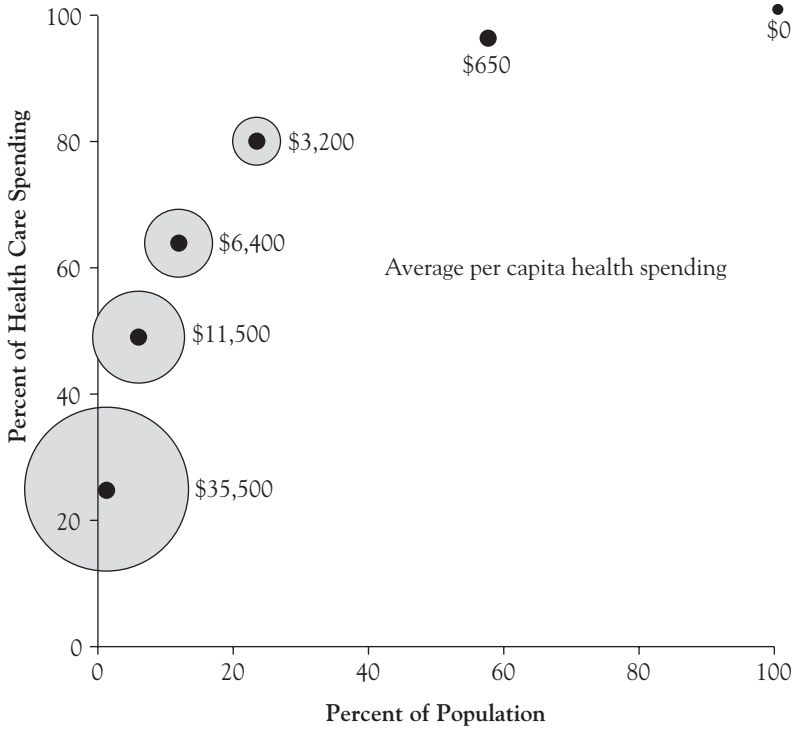
When we aggregate data for the U.S. population as a whole who have health coverage, 1 percent of the population spends over 35 percent of all health care dollars. Data compiled by our actuaries from various sources indicate that 5 percent of the population spends almost 60 percent. Ten percent spends nearly 70 percent of our care dollars. Our actuaries also calculate that a mere 0.5 percent of the insured population spends nearly 25 percent of all care dollars.[1]

You can see these numbers in Figure 1.1. So the truth is a fairly small number of people spend almost all of our available health care dollars.

On one end of the cost continuum spectrum, a very small number of people spend a very large percentage of our health care dollars. On the other end of that same continuum, there are a lot of people in this country who spend very few health care dollars. Half of the population spends only 3 percent of our health care resources. In dollar terms, the difference between health care spending for those who spend the most and the ones in the bottom 50 percent who spend the least is almost $35,000 per person per year. And 15 percent of our population spends no health care dollars at all in any given year.[2] Zero.

It's hard to reduce costs below zero—so that's obviously not where we should be focusing our attention. Nor should we focus on the folks who spend less than 3 percent of our health care dollars. We need to focus on the big spenders. Thinking strategically and systematically, the key opportunity for us in American health care is obviously to figure out how to have a real impact on the current and future costs of care for those few, very expensive people. Look at Figure 1.1 for some key numbers.

Figure 1.1. Distribution of U.S. Health Care Spending.



Source: Agency for Healthcare Research and Quality. "Medical Expenditure Panel Survey Statistical Brief #81: Concentration of Health Care Expenditures in the U.S. Civilian Noninstitutionalized Population." May 2005. http://www.meps.ahrq.gov/mepsweb/data_files/publications/st81/stat81.pdf.

Five Chronic Diseases Create the Most Costs

An equally important point of fact that we need to understand and focus on is exactly who spends those dollars. The total medical care costs for people with chronic disease account for more than 70 percent of the nation's health care expenditures.[3] Five basic diseases create the vast majority of American health care expenses, and they are all chronic conditions. Most people do not understand that basic fact of health care economics. Why? Because acute care cases tend to get more attention.

Acute (nonchronic) health conditions tend to get more public attention because each individual acute case can be very visible. Those diseases do not create most health care costs. Pure acute medical conditions like cancer, trauma, infectious diseases, and maternity care do create real expenses, but they are *not* our major cost drivers. Our dollars are overwhelmingly going to people with one or more of these five chronic conditions: diabetes, congestive heart failure, coronary artery disease, asthma, and depression.

That set of facts tells us that we need to think strategically and clearly about those five very expensive conditions if we truly want to impact health care costs in America. We need to learn to think systematically about the care we deliver for each of those diseases and then act systematically to improve the quality, outcomes, consistency, and cost of that care.

Chronic Diseases Progress

For starters, we need to recognize the very useful fact that each of those five very expensive chronic diseases tends to be progressive. They each tend to start with a relatively low level of needed care for each patient. If the patient does not receive proper treatment, his or her condition will worsen until the patient requires major additional amounts of money for his or her care. The expense climbs for each patient over time as his or her health status deteriorates and each person's disease progresses into its full-blown, highly expensive, acute care crisis stages.

Why do we all need to understand that particular fact? Because if we think systematically about that situation, then it becomes obvious pretty quickly that slowing or preventing the progression of each chronic disease from the relatively inexpensive early stage to the incredibly expensive, crisis-laden, and more complex late stage is a huge and obvious opportunity for us all. Successful interventions in the progression of chronic disease have the potential to significantly reduce health care costs and simultaneously improve the

quality of life for those chronic care patients. Do the math. If we want to reduce the amount of money we spend on health care, we need to start by recognizing who we are spending it on now, and then we need to improve outcomes and care for those patients so we can reduce the expenses of their care.

This is not just a hope or a dream. Medical science has now progressed to the point where we can effectively intervene in systematic and consistent ways to reduce the complications that drive so many of our health care costs. Any attempt at reforming care delivery or alleviating costs absolutely needs to address these issues directly and take advantage of these opportunities. Interventions are needed. They are possible. They just aren't systematically done in American health care today.

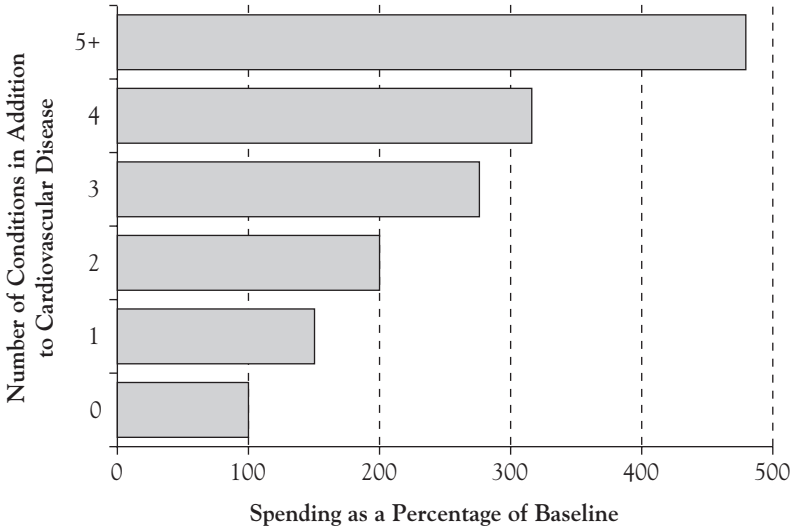
This is a very doable agenda. But it's not how the American health care infrastructure performs now, and this particular cost and quality opportunity is not where most health care reform thinkers currently focus their thinking.

The Impact of Comorbidities

So what else do we need to know about patients with chronic diseases? A key point for each of us to have on our strategic radar screen is the reality and impact of comorbidities. Comorbidities mean that a patient has multiple diseases. It is particularly important to clearly understand that the people getting the most expensive and heaviest levels of care in America today usually have comorbidities—two or more of those five chronic diseases—with an additional acute disease often creating further complex and extremely expensive problems for many of these chronic care patients. See Figures 1.2 and 1.3. Patients with comorbidities generally require the most care, and they often utilize many more caregivers than people with just one disease.[4]

As you will read later in this section, our health care infrastructure does a much worse job of taking care of people with comorbidities

Figure 1.2. Increase in Average Annual Health Care Spending with Comorbidities.



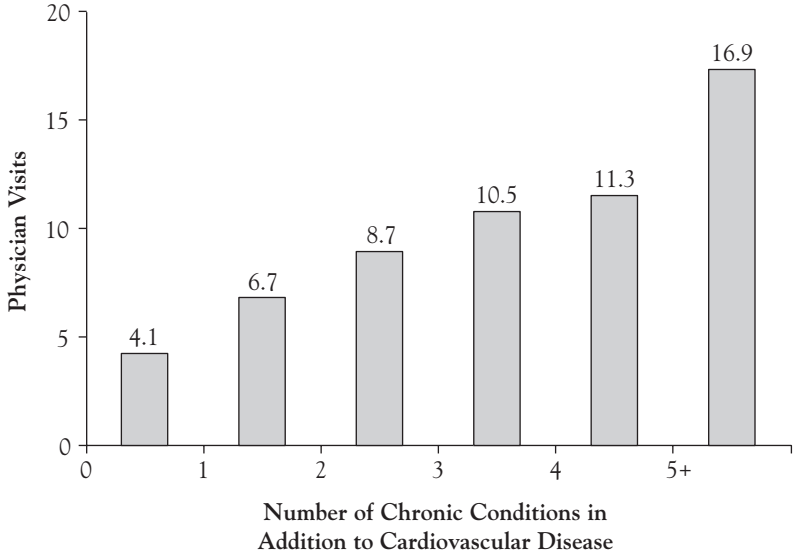
Source: Partnership for Solutions. "Cardiovascular Disease: The Impact of Multiple Chronic Conditions." Baltimore, Md.: Robert Wood Johnson Foundation and Johns Hopkins University, May 2002. http://www.partnershipforsolutions.org/statistics/issue_briefs.html.

than it does of taking care of people with only one disease. In other words, we do least well as an American care infrastructure for the very patients who need care the most.

Those are a couple of key facts about the distribution of health care costs in America that need to be at the foundation of our strategic and operational thinking about care and the costs of care.

Any plan for health care reform that does not deal directly and effectively with those five chronic conditions—and their comorbidities—is probably going to be an exercise in futility—very probably a waste of political, social, and economic energy and resources. Those five conditions are what cause us to spend the bulk of our health care money. It's almost silly to think about health care reform

Figure 1.3. Increase in Average Annual Number of Physician Visits with Comorbidities.



Source: Partnership for Solutions. "Cardiovascular Disease: The Impact of Multiple Chronic Conditions." Baltimore, Md.: Robert Wood Johnson Foundation and Johns Hopkins University, May 2002. http://www.partnershipforsolutions.org/statistics/issue_briefs.html.

that doesn't address each one of these conditions, problems, and opportunities very directly.

Significant Problems with Chronic Disease Care

So how well do we do now in America taking care of those chronic diseases? We don't do well at all.

A wonderful and important study done by the RAND Corporation took a look at the health care of 7,000 Americans, checking every aspect of their care for multiple years. That superb RAND study showed that Americans today receive appropriate care for their complete set of medical conditions barely half of the time[5]—and our

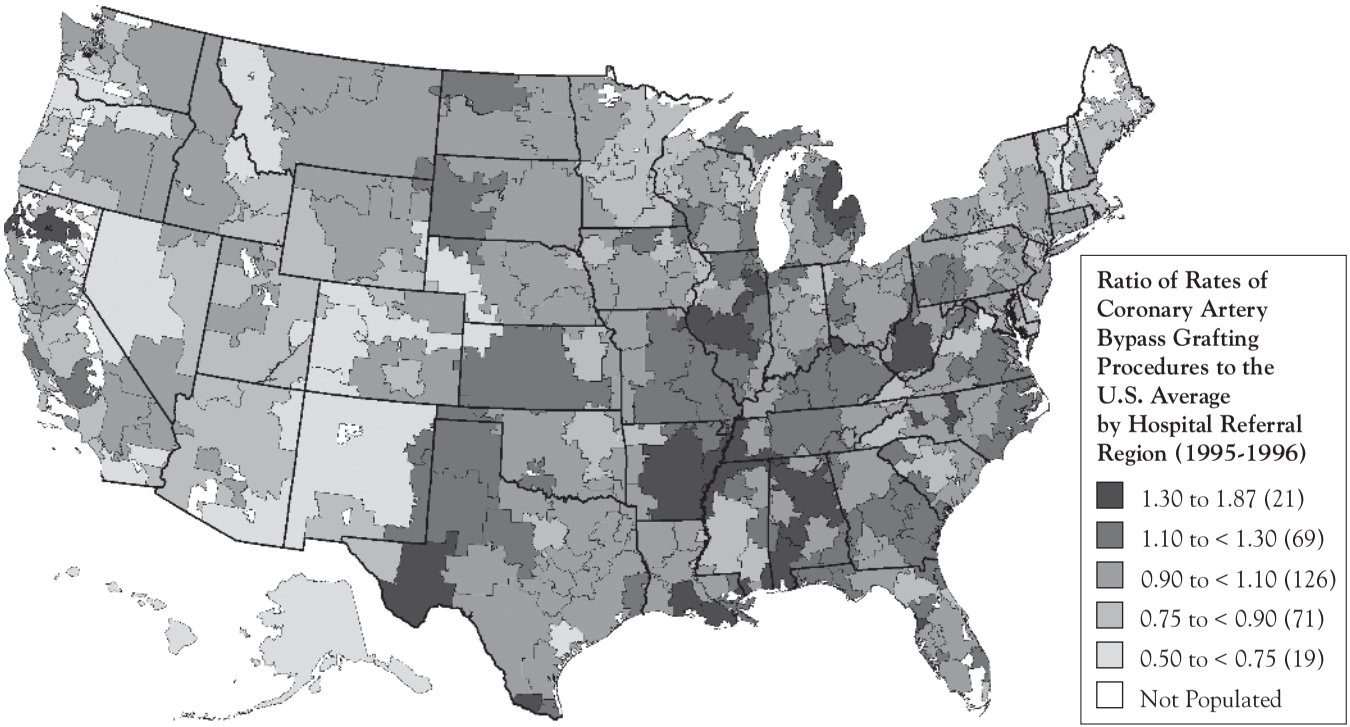
care delivery process was particularly inept in providing care to people with those five chronic diseases.

That's not the only research that has resulted in that finding. John Wennberg's wonderful work at Dartmouth Medical School[6] (see Figure 1.4) and a body of excellent work done by the prestigious Institute of Medicine (IOM)[7] both point us to equally dramatic and troubling conclusions. According to the IOM, there is a vast "chasm" between the care we know people should get and the care that patients in America actually receive. The IOM wrote a book titled *Crossing the Quality Chasm* that should be required reading for anyone advocating health care reform in America.[8] It's a brilliant piece of work. Easy to read. Well argued. Well documented. Absolutely clear in its message. If you haven't read it, please get a copy. The introduction alone is worth the price of the book.

Box 1.1. The Institute of Medicine on the State of U.S. Health Care.

Crossing the Quality Chasm makes the point that the current state of the health care delivery system is mismatched to the needs of U.S. citizens, particularly those with chronic disease. The Institute of Medicine (IOM) concluded that bringing state-of-the-art care to Americans in every community requires a sweeping redesign of the entire health care system for patients to receive care that is safer, more reliable, more responsive to their needs, more integrated, and more available, and for patients to count on receiving the full array of preventive, acute, and chronic services that are likely to prove beneficial. As a follow-up to this report, seventeen priority areas for transforming health care were identified. These include diabetes, coronary heart failure and coronary artery disease, asthma, and major depression.

Figure 1.4. Regional Differences in the Rate of Cardiac Bypass Surgery.



Source: J. E. Wennberg and M. M. Cooper (eds.). "The Quality of Medical Care in the United States: A Report on the Medicare Program." *The Dartmouth Atlas of Health Care 1999*. Chicago, Ill.: Health Forum.

So, back to the first hard truth—we have a very small number of patients running up huge bills for care, those patients tend to suffer from chronic diseases, and we as a nation do a demonstrably inadequate job of providing the specific care those expensive patients need. So what are those chronic diseases?

Diabetes, Congestive Heart Failure, Coronary Artery Disease, Asthma, and Depression

Those five chronic diseases are diabetes, congestive heart failure, coronary artery disease, asthma, and depression. Hypertension is also extremely relevant because it is an underlying health condition that leads to heart failures and exacerbates the complications of diabetes. Those are the big-ticket items—the conditions that create most of our care costs. Following behind those chronic conditions—and—ranked also by expense—are several acute care health conditions, with trauma, cancer, maternity care, and various kinds of bone and joint care leading the cost parade. Cancer, in total, runs about 5 percent of the total U.S. health care dollar.[9] Maternity care runs at roughly 4 percent.[10] Bone and joint care runs just under 2 percent.[11]

I mention those additional less expensive acute care conditions because in a $2 trillion health care economy, 4 percent and 5 percent are still a lot of money. I mention them as well because we also have great opportunities for care improvement for each of these conditions. Too many patients in each of these categories of care also currently suffer from inconsistent, inadequate, and uncoordinated care. How well do we do on maternity care? We rank thirty-fifth in the world in infant mortality,[12] a number that should horrify us as a nation because we spend twice as much money per capita on health care as any nation in the world and, by world performance standards, we do not get what we pay for.[13] There are statistics later in this book about our sometimes dangerous inconsistencies in providing cancer care, orthopedic surgeries and joint care, and maternity care. We have a lot of opportunity to significantly improve care in each of those key acute areas as well.

But that's later in the book. For now, we need to be clear about that first hard truth: a small number of people run up most of the huge health care bill faced by this country. We know exactly who they are. We know from good and credible experience and research that we are not doing a great job on their care. For example, we know from good and credible experience and research that we could cut the complications of people with diabetes by up to 90 percent with best care and involved patients.[14] Other conditions offer similar opportunities. We know that we can cut second heart attacks by over 40 percent[15]—and we know that we could cut school and work days lost because of asthma by nearly 90 percent[16]—and yet we choose as a society and as a national care environment not to systematically and strategically figure out the best ways of going down those clearly available and extremely useful care improvement paths.

As you will read in this book, that is a huge mistake—one we need to correct.

So that's fact one. A small number of people create the vast majority of our health care costs, and we could be doing a much better job of taking care of those people.

The Second Hard Truth: Care Linkage Deficiencies Abound

The second hard truth we all need to face is that our actual frontline care delivery process in this country is weakened, shortchanged, undermined, and sometimes crippled by pervasive care linkage deficiencies. Trained system thinkers from other industries who study how we actually logistically and operationally deliver care in this country quickly note the constant and almost unconscionable gaps that exist related to both the connectivity and coordination between various American caregivers.

A patient with two diseases typically has two doctors—two independent caregivers, each specializing in their particular disease. A patient with three comorbidities typically will have at least three doctors, each representing one of the three separate specialties.

Why is this a problem? Isn't it good that we can offer patients a range of specialists? It is. The problem is that we have no system in place to coordinate the care given by these different doctors.

The Problem with Paper Records

Three doctors means three separate, nonelectronic medical records—multiple pieces of paper about each patient, with each piece of paper stored in separate paper files and each physician's separate record by definition incomplete, noting in relevant detail only the care delivered by that particular doctor for that particular disease in that particular place.

Record keeping for American health care is almost always stored by doctor, not by patient—flawed as that model obviously is from the perspective of overall good and systematic patient-focused care. For patients trying to get a clear sense of their own medical status, having multiple pieces of paper records in multiple sites can be a logistical nightmare. Care records also tend not to follow when the patient moves from one area to another.

For example, a child treated for asthma in San Diego can move to El Paso and, almost without exception, none of the needed care information will follow for the vast majority of patients who move or change caregiver.

Records of care received during an emergency room visit are almost always unavailable during follow-up care with the patient's primary care physician. Needed information from the primary care physician may not be available during a visit to a specialist.[17]

Care Silos

The paper files that people depend on for care information are only part of the problem. Typically, the doctors for a given patient with comorbidities seldom communicate with each other, and the total care for each patient is almost always functionally delivered in care silos, not care systems. Care isn't coordinated, and the important information about the care actually delivered to each patient gen-

erally stays with the doctor, not the patient. Patients with cancer and diabetes typically experience no connectivity between their ophthalmologist and their oncologist, even though both are prescribing medications. Those files stay locked in separate buildings and are often not coordinated in any way.

Those care linkage deficiencies (CLDs) cause problems at multiple levels. Doctors are reliant on information. Medicine is an information-driven profession. Doctors who practice without complete information about a given patient are handicapped. Sometimes dangerously handicapped. Studies show that CLDs are known to contribute to unnecessary hospitalizations.[18]

The extent to which care linkages are impaired is often painfully visible to the patient and his or her loved ones when a patient has a serious disease. Anyone who has tried to help an older parent with care needs in any kind of care crisis knows exactly what I'm writing about. If you fly into another town to figure out what level of total care your parents are—and have been—receiving, it's often almost impossible to get the information you want or need. Each relevant caregiver is generally separate and siloed, and treatment coordination between caregivers is extremely rare, rather than the rule or expectation.

Since the most expensive patients that I referred to in the first hard truth tend to have comorbidities, any care delivery approach that doesn't have well-executed coordination built into the overall system is inherently and inevitably going to produce an inferior outcome a very high percentage of the time.

Disincentive to Change

The current constant gaps in systematization create problems, inconveniences, and even tragedies for patients. They add significantly to total health care costs. They also create a complete inability for society overall or for various payers or purchasers of care to create any sense of caregiver and care system accountability or to create effective caregiver and care system performance incentives or rewards.

A fact that some patients are beginning to realize and resent is that most caregivers in this country are making almost no attempts to improve that care linkage deficiency situation. The functional CLD problem is almost completely ignored by the vast majority of caregivers.[19] It's simply not a problem that most caregivers spend any real time trying to correct. Care delivery practitioners usually hold the overall care infrastructure to an incredibly low standard when it comes to the creation and existence of a network or system of adequate communication processes focused on each patient.

If questioned about CLDs, caregivers may acknowledge the generic issue, but then even the best intentioned unlinked caregivers typically shrug in frustration and say, "That's just the way it is. That's how care in America works." Expectations about CLDs are very low. Amazingly low. Anyone trained in formal systems thinking or process improvement methodology who looks at those dysfunctional, unconnected system elements is horrified at how low those caregiver expectations now actually are about linkages between caregivers.

We can and should do a lot better. Even in the world of unlinked solo practice caregivers.

I'll return to those points later. For now, the second major fact we all need to recognize as we try to figure out how to truly reform health care in America is that our current health care delivery process is overrun with significant care linkage deficiencies, and we will not be able to deliver optimal care until adequate, consistent, and dependable care linkages are created and made real for each patient.

There are a number of ways to achieve that goal. I'll cover a couple of approaches later in the book. But we can only start on a solution once we recognize the second hard truth: a multiplicity of care linkage deficiencies that we either tend to accept or ignore as both purchasers and providers of care currently keep us from delivering optimal and efficient care to our most expensive patients.

The result is both lower quality care and higher cost.

The Third Hard Truth: Economic Incentives Significantly Influence Health Care

The third major fact that we all need to be very aware of as we try to reform American health care is that market forces and economic incentives absolutely do work to influence care. The hard truth, however, is that up to now we have almost always used very perverse and frequently counterproductive financial economic incentives for American caregivers.

I've actually had quite a few people ask me why market forces don't seem to have any impact on American health care. People say, "Financial incentives work in every other area of the economy—why is health care exempt from them?" That's an inaccurate diagnosis of the situation. Market forces and economic incentives do work in health care, but the truth is, we haven't designed those incentives very well at this point. So the incentives we use now too often give us unfortunate outcomes. We need to recognize that our caregivers are in fact fully responsive to the specific economic incentives that exist now and that providers of care are actually giving us today exactly what our current economic incentives reward.

Market Incentives Work

Incentives absolutely do work. They work in every other area of the economy and they work in health care. The economic theory on that point is completely valid and well proven.[20] Health care is just like every other economic system. In every industry, market incentives influence and shape the production of goods and services. What does that mean in practical terms? It means that market forces sculpt and screen both products and services. No industry produces goods that customers won't buy. Buying is the key. Every industry produces exactly what the customers actually pay for. Buyers are the final and absolute test. Economic units—businesses—produce what buyers buy, and economic units fail and go out of business if the buyers won't buy what they produce. It's actually a

pretty clear, utterly ruthless, and completely rigorous screening process for both products and services.

Anyone who wants to apply market forces more constructively to health care needs to understand that basic truth about how market forces actively work. Customers are the key. Products without customers do not survive. Products with customers thrive. Business units that produce what the customers actually buy have both revenue and economic sustenance. Business units with no revenue are gone quickly. Business units all respond to the customer. You basically get what you pay for, and you survive as an economic unit only if you get paid.

If everyone wants to buy cell phones, a lot of economic units figure out how to produce and sell cell phones. Demand for a product structures what people produce. If you want to know why so many companies produce cell phones today, follow the money. Production follows payment.

So what do we actually pay for in health care today? These are the bare facts: we have over nine thousand billing codes for individual health care procedures, services, and separate units of care.[21] There is not one single billing code for patient improvement. There is also not one single billing code for a cure. Providers have a huge economic incentive to do a lot of procedures. They have no economic incentive to actually make us better. The economic incentive score is 9,000 to zero—process versus results. Results get zero.

So what does the largest health care economy in the world produce? Cures? No. Cures aren't a billable event. Systematic health improvement? No. Health improvement is also not a billable event. No one buys it, so no one sells it. Procedures are, however, easily billable—so our caregivers produce huge numbers of procedures. We generally pay very well for procedures in this country. In response, caregivers produce constantly expanding volumes of individual units of care. Our caregivers sell procedures one by one, and caregivers get paid for doing each procedure—with no portion of that pay ever based on the actual results or success of that procedure. So the eco-

nomic focus of caregivers is, of course, on individual, billable services. We can't blame providers for having that focus. That's the way providers get paid. So of course, providers focus on the specific pieces of work that actually create payment. That provider focus on billable events needs to be there or providers will not survive in today's health care economy as economic units.

Changing the Incentives

When we stop to think about what we really want to buy in health care, what is it? I suspect health improvement and cures would be pretty high on the list. But sadly, in the current American health care economic model, there is absolutely no systematic billable event or opportunity for caregivers to benefit financially from improving patient outcomes. There is no efficiency payment, no success payment, and no economic reward for improving overall health.

There is also no overall caregiver financial agenda built around any real economic gains that might be earned by a caregiver for achieving very measurable process-based quality improvement goals like reducing the number of acute asthma attacks or shrinking the numbers of expensive care site crisis use by 50 to 90 percent for a given population or for a given disease. Some pay-for-performance programs are being piloted to look at rewarding some levels of performance, process, and results. That's a good thing. But so far, the actual pay-for-performance process at this point is tiny and very experimental.[22]

Take asthma—one of the five chronic diseases—as an example. No one pays providers to reduce either the level or the volume of asthma crisis. Providers are, however, paid a lot of money to take care of an asthma patient who is in a crisis. Hospitals, in fact, make very nice profits off each asthma patient in a crisis who is admitted to the hospital. Hospitals make absolutely no money from an educated, enlightened, and personally empowered asthma patient who recognizes his or her symptoms at an early stage and then takes the steps necessary to avoid an emergency room visit or a hospitalization.

So, whether you are an academic, philosophical, theoretical, or even professional believer in market forces, the question is the same—do you really think the best reward system is to pay providers a lot of money when patients move from good health to bad health—to pay real money only for an expensive, painful, acute asthma crisis—or would it make some economic sense to pay providers well in some viable way for preventing those expensive and extremely unpleasant crises?

Keep in mind what American health care rewards now. This is an extremely important point for us all to recognize. We pay well now for the crisis. An asthma crisis can be a very lucrative event. But preventing that same crisis creates no billable event. And today we are in the middle of a national asthma crisis—an explosion in the number of people having their own individual asthma crisis. In one study, asthma was the third most frequent cause of avoidable hospitalizations.[23] That problem is happening not because caregivers create that crisis—but in part because caregivers have no market-based incentive or revenue stream to use to systematically and proactively intervene to prevent that crisis. No one disputes the fact that we could significantly alleviate this national asthma crisis by treating asthma in a systemic way.

That question of how to pay for care seems to be a lot harder for many people to answer than it should be. It has been complicated for buyers by the fact that it has seemed counterintuitive to believe it is better to somehow pay moderately well for a second heart attack that will never happen rather than to pay very well for a second heart attack that will in fact happen. Until now, the decision has been to pay only for problems after they happen—not to incent the processes or approaches that measurably and effectively prevent those expensive problems from happening at all.

To be fair to the purchasers of care, that resistance to thinking differently about how to pay for care delivery has not been limited to buyers. Providers of care also have tended to oppose any change in the current set of incentives. Just about everyone in the American provider infrastructure is used to the current payment approach.

It's how the care infrastructure gets its money. Fee-for-service payments are easy to calculate. The business model decisions for fee-for-service American providers are not very complex: "I'll perform a defined service; you pay me a defined fee." Many care providers actually love to be paid solely on a piecework basis. The business models of America's massive infrastructure of fee-for-service care providers are now built entirely around piecework care—growing volumes of piecework care. Those business models often are very lucrative for the caregivers.

So a lot of American care providers directly disparage, discourage, and even resist any significant reform efforts relative to health care purchasing or payment approaches. "Fee-for-service medicine is the only way to guarantee quality," they say. "Quality suffers as soon as fee-for-service payments disappear. "

If there's actually a serious quality-of-care guarantee connected in some way to fee-for-service health care, someone in America should be cashing in right now on that guarantee clause, because that particular product value promise has clearly failed. RAND, the IOM, and Wennberg have all proven that supposed fee-for-service linked quality guarantee to be fraudulent.

We all like to think of our caregivers as good people—trying very hard to do the right thing. That is, I believe, actually very true. Our care providers are good people, all trying to do the right thing—but a bit more specifically, everyone is doing the "billable right thing." If it isn't billable, it isn't happening. Successfully preventing a health care crisis is not billable. Care linkages are not billable. So care linkages do not happen.

In a fee-for-service health care world, care linkages almost never exist. But, as I noted earlier, it's pretty hard to simply blame the providers for that reality. No one pays for care linkages. Patients do need them, but no one pays for them. So nobody creates them. Providers can't afford to do work they don't get paid for. That's just practical economic reality. Its also economic common sense. Independent caregivers could literally not survive as economic units if they spent their time doing nonbillable things. Income, revenue,

and the economic survival of caregivers all result exclusively from doing billable things. Economic incentives determine both what gets done and what doesn't get done.

My major point here is that health care has already proven that it responds with a passion to existing market forces. Our health care infrastructure has grown to be the biggest in the world, due entirely to the market forces and market rewards we now use. We can see the consequences of the current reward system everywhere we look. We pay specialists more than primary care doctors, so we have very few doctors going into primary care. We pay a lot for diagnostic imaging, so the bills for imaging equipment are growing faster than anything else in health care.[24] The good news is that the new scanning equipment can do wonderful work diagnosing disease. Some of the images are almost magical miracles of technology that directly benefit patients. So I am not generically critical of those procedures. The challenge is that the financial incentives to use those marvelous but expensive machines are not directly linked to their actual value.

Market forces work in health care. The problem has been that the market forces used have been badly flawed. We are creating incentives for some things we really should not incent. And the response to those incentives on the part of the provider community, not surprisingly, has been equally flawed. Completely logical. Entirely understandable. Economically practical. But flawed.

Some people try to refute that point by saying, "At least we get a lot of care with our current set of incentives." That is true. But more care is not necessarily better care. Read the studies by John Wennberg at Dartmouth Medical School on the relationship between high costs, high frequency for care, and low care quality, and you can see pretty clearly how flawed the current economic model is.[25] The Dartmouth database has shown us clearly that the highest-cost communities with the highest level of physician encounters per patient often were the communities with the lowest measurable quality of care. Market forces in those communities cre-

ated high volumes of services, not better care. Inappropriate levels of care can be dangerous and can damage quality of life for patients. More is not better. What is better? Right care. Right care is far better than just more care. We need to incent best care and right care, not more care.

This book will propose that buyers support and use an alternative market incentive approach and a different market model. For now, the fact I want to point out is that market forces do work to influence care. We see that every day. We need to create market incentives that produce better care, not just more care or inconsistent, dangerous, and inadequate care.

The Fourth Hard Truth: Systems Thinking Is Almost Never on the Health Care Radar Screen

The fourth major foundational fact we all need to look at very carefully and understand very well if we want to functionally reform care delivery in this country is one that is not at all obvious to people outside of care delivery. It may in fact be the single biggest current misperception and misunderstanding about health care delivery that exists on the part of people who are not caregivers.

People believe health care in this country is an actual system with systemic processes fully in place. People tend to believe that when a new medical science learning, insight, treatment, or technology is developed, there is some in-place process today that will get that new science effectively to their personal caregiver. People tend to believe that when their personal doctor recommends a treatment, it's done with a clear sense of what the probable statistical outcomes of that treatment are. People believe that health care operates every day in the context of a living, interactive, up-to-date database that constantly compares one set of treatments to another relative to their likely success levels, with caregivers learning regularly what the most current comparative success levels are. People believe that a lot of systems thinking and data sharing happens in

health care. Patients have a high level of comfort that their own personal caregivers and care infrastructure are part of a huge systematic care improvement process.

The truth is there is an almost total lack of systems thinking in health care. Health care is delivered one unit at a time. That's what the market incents. That's where the focus is now. Thinking tends to be focused almost exclusively on those single care units—those individual procedures. Relative outcomes of various care approaches are almost never tracked or measured. Outcomes measurement at any level is on almost no one's radar screen. Comparative and concurrent performance data are not part of the American health care culture—nor typically are performance measurements part of the professional mind-set for individual fee-for-service caregivers at any level, unless those measurements have been somehow externally imposed.

Some measurement happens, but usually only because someone external insisted on the measurement. When regulators, buyers, or credentialing processes very literally require or demand that something be measured, measurement happens.[26] Outside of those infrequent external requirements, measurement is rare. I hate to be so brutally frank, but health care as an overall infrastructure and as provider entities or individual providers of care measures almost nothing when judged by the normal standards of performance tracking that exist for any category of systematic quality improvement processes used by other major industries. Few measurements are taken. And even when those few measurements are done in health care, they generally aren't compared with each other or used in any systematic way for quality improvement processes.

As I noted earlier, the very few aggregate measures that do exist now tend to have been externally imposed by buyers or regulators, and the actual measurement of data in those areas tends to stop at the lowest possible level needed to satisfy the very specific, bare bones, bare minimum levels mandated in each case by the external reporting environment.

Health Care Needs Data

Why is this lack of measurement a problem that we need to understand if we want to reform health care? Reform takes data. Accountability takes data. Real competition takes data. Data is the key. Health care lacks data.

In other industries, data is golden. Data is the mother's milk of systems improvement. Data is the tool that lets hard-working systems and process engineers actually improve processes and outcomes. Data is treasured. Data use is a skill and a science.

In health care, pure scientific data is absolutely and unquestionably respected. Not always used consistently, or even known, but deeply respected. The culture of health care deeply respects, honors, and values good science. But hard as it is to understand, when it comes to operational, functional, process-based data, the culture of health care is very different. Operational data is not particularly respected. Data is not sought after, either. Operational data is in fact just about nonexistent in health care. That type of data isn't valued and the lack of data isn't even noticed or missed.

So the hard truth is having comparative performance data about various aspects of care improvement and care efficiency is not regarded as a potential gold mine for process improvement by caregivers. Performance reporting that actually exists about either processes or outcomes is almost always regarded in the current culture of American health care as an onerous, externally imposed burden, extraneous and irrelevant to the actual business and profession of care delivery.

In any other industry, the specific financial and operational data I mentioned at the beginning of this chapter would be highly valued and broadly utilized information. In another industry, the simple fact that 1 percent of customers use over 35 percent of all organizational resources, for example—that would be the focal point for highly energized thinking and would result in extensive, well-engineered performance improvement efforts. Yet in health care

circles, those extremely important numbers are ignored. Simply and literally ignored. Almost no one in health care operations looks at those amazing numbers and says, "There must be something we can consistently, effectively, and systematically do to keep the people with those chronic conditions from getting to that most unaffordable and costly 1 percent status."

Go to any health care conference and try to find anyone who delivers care for a living even talking about those incredibly important numbers. A few concerned people—economists, actuaries, and some enlightened buyers—are beginning to point out those numbers. They are generally getting little or no real-world support for their efforts. I've pointed those numbers out myself in speeches and prior books and articles.[27] The actual data and statistics I've cited are sometimes quoted, but pretty much never acted upon by anyone in health care. Process numbers are extremely rare. Outcomes numbers are even more rare. And almost no one in health care is attempting to set up a process where those kinds of numbers are relevant to decision making at any practical level. That's a major challenge to health care reform. It's hard to fix a system when its basic operations are not built around a numbers-driven thought process—and when very few caregivers even know what the most relevant numbers are.

To be fair, there are some exceptions. A few large multispecialty medical groups like the Mayo Clinic, Intermountain Healthcare, HealthPartners, the Veteran's Administration, and our own Kaiser Permanente physician groups are doing some powerful and effective data-supported process improvement work.[28] But those few megamedical groups—large as they are—make up a very small percentage of the total health care delivery infrastructure of this country. Less than 4 percent of all U.S. physicians work in practices with fifty or more other physicians.[29] For the rest of the caregivers in this country, those kinds of numbers generally drive no operational or strategic analysis and no behavior change. They are interesting—but not inspirational.

The hard fact we need to recognize in thinking about the health care reform agenda we need for this country is that systems thinking is simply not part of the current health care agenda for most caregivers. Systems thinking is not a tool used today on a regular basis by care leaders to transform and improve care delivery. It isn't even discussed as an option in most settings. Data flows are deeply valued everywhere in every non–health care work setting where systematic thinking is done. But they are not usually valued in health care.

Disincentives for Systems Thinking

So why is systems level analytical thinking so rare in health care?

The point here is not to blame the caregivers. Look again to the dollars. The answer is in the economics. What do we incent and what do we reward? Do we reward caregivers for the results of the same kinds of analytic thinking that create economic wins for other industries? Not very often. In fact, usually the opposite economic impact occurs. The payment system itself far too often directly penalizes systems-based efficiency when it actually happens.

When the Mayo Clinic, Park Nicollet Health Services, and HealthPartners Medical Group—a team I was proud to be part of—set up the Institute for Clinical Systems Improvement (ICSI) in Minnesota, our aim was to have the best and brightest caregivers in Minnesota figure out best practices for various types of care. One of the first conditions we looked at through ICSI was simple cystitis—urinary tract infections in women. The medical science identified the best tests, best drugs, best dosages, best processes, and so on to treat cystitis. Then the ICSI team checked to see how many cases were currently treated in Minnesota using that best approach. Roughly 12 percent were. That meant 88 percent were not. So an intensive campaign began to educate participating ICSI member physicians on the best approach to care for women with that specific health problem. What happened? Real improvement. The number of cases treated using the best approach increased by 500 percent within a year—to over 60 percent.[30]

In the world of health care, that was a big win for systems thinking. It used systems thinking to make care better and more efficient. But there was a problem. A serious problem. An unintended glitch.

Patients definitely received better care. But it turned out better care actually produced less revenue for the caregivers by quite a bit. Cost of care went down by 35 percent, more than a third.[31] Getting care right the first time was generally cheaper for the patient than getting it wrong initially and having the caregiver re-treat the patient and then bill for another round of care . . . continuing to treat the patient until a future treatment finally worked. Rework had actually been fairly profitable, when only 12 percent of the doctors were using the best approach. Rework generated a lot of caregiver revenue. So did unnecessary office visits—visits that could be eliminated by patient-focused reengineered care delivery.

So what happened? Think about the model from an economic perspective. The care was better. Revenue was worse.

ICSI doctors took the high road and did the right and honorable thing. ICSI doctors stayed at a higher level of compliance with best care. The results were publicized. And the process never caught on anywhere else in America. No one else wants to lose 35 percent of their billable revenue for their patients. Providers do not see losing 35 percent of their revenue as an economic reward. The current American payment approach directly and immediately penalized the providers who provided best care for those patients. Care was better, but using a systematic approach to reengineer care in favor of better patient health and much better overall care system efficiency hurt individual doctors financially.

The prestigious Virginia Mason Medical Group just made a presentation on a similar program to the MEDPAC Commission in Washington, DC.[32] They applied best practice protocols to the use of imaging services for certain patients. The number of scans that were determined to be medically needed dropped significantly. That was the good news. The bad news was that the medical group revenue from the scans for Virginia Mason also dropped significantly.[33]

The reward for doing good was not to do well—it was to be financially penalized.

The same drop in overall care system revenue happens when the care delivery infrastructure cuts the rate of heart attacks or asthma crises. Revenue drops. No one is rewarded. Caregivers are financially penalized. Incentives to create efficiency do not now exist. Disincentives abound. Guess what happens? Inefficiency rules. That kind of economic result obviously doesn't stimulate or encourage systematic thinking or behavior. It definitely does not create an incentive to gather data that can be used in a systematic way to continually reengineer the process of care delivery.

One of my favorite process improvement stories in health care concerns dental decay. A bright process analyst, patient advocate, and systems thinker many years ago looked at the total process of tooth decay and said, "If we could just intervene very early in the decay process and seal each person's teeth with something that would physically protect each tooth from decay-causing organisms, we could probably make a huge impact on the total amount of dental work each patient needed."

That experiment was done. It worked. Teeth were sealed with a special plastic sealant that covered up the tiny cracks where cavities start. The clinical result was almost a 90 percent reduction in both tooth decay and a significant reduction in the number of dental fillings needed.[34] My own kids had their teeth sealed, and they have had no need for fillings, in either their baby or adult teeth. None. They literally don't know what a dental drill feels like. I very much envy them. They've had their teeth cleaned, but never drilled. Sealants are a clear and basic application of good science and well-thought-out process improvement thinking to care delivery.

So do all dentists in America now seal everyone's teeth? Not all. Less than a third of children have at least one sealant.[35] A cynic might note that any time a dentist seals a tooth, the likelihood of billings for future repair work for that tooth drops off precipitously.

That's a problem for dentists. Dental fillings have been the biggest source of direct revenue for dentists for a very long time.

Prepaid dental plans—organized dental providers who get paid a fixed amount of money for all needed dental care—seal teeth enthusiastically, because those dental plans have a strong economic incentive to avoid future dental costs. Drilling teeth is an expense for prepaid dentists—not a revenue opportunity. By contrast, most fee-for-service dentists seal teeth less enthusiastically, if at all, because those independent business units don't necessarily want to eliminate future revenue.

The bottom line is that dentists who benefit through prepayment approaches for avoiding future cavities seal teeth all the time in very systematic ways. The financial incentive under prepayment to seal those teeth is clear. Incentives do work in health care. So does systems thinking. They each work best when they are carefully linked and aligned.

Systems Thinking, Data, and Doctor Autonomy

So how do we get health care to start thinking systematically? To begin the process, we need data. We need a database that will give us the framework for tracking, monitoring, and comparing performance in key areas of care—like care of people with asthma or diabetes—where we know that the real-world opportunities for fewer crises and fewer complications are huge.

We also need buyers who care about that performance data and then reward the right kind of provider performance. Buyers are the key. Products without buyers don't exist. As noted earlier, products with buyers thrive. We need buyers to create and support market forces to incent best care. We need market forces that reward America's doctors for providing the right care to women with simple cystitis—rather than continuing to use market systems that financially penalize doctors for that same right care. We need the same kinds of thinking that cause prepaid dentists to seal teeth to apply to doctors and care systems who take care of congestive heart failure patients and coronary heart disease patients. We need systems

thinking applied to the care of our patients with depression, charting out the right interventions, the right treatments, the right prescriptions, the right tracking, and the right follow-up. Non–systems thinking will just get us to where we are now—the most expensive care delivery economy in the world, with marginal and unmeasured outcomes and over 45 million uninsured people.

I'm not suggesting that we want, need, or should create a marketplace where physicians should be forced into "rules-based" medicine. That would be bad. It is a very good thing for each physician to have professional autonomy in taking care of each patient. We all want and need our personal caregivers to have that kind of autonomy. The doctor-patient relationship is a very special and valuable interaction that should have particular protection as we move forward to reform health care. We should all want our physicians, as professionals and as caring human beings, to be cocaptains of a special and unique one-to-one care relationship, working in full partnership with each of us as individual patients.

When I see my doctor for my own coronary artery disease or for the bone spur in my left shoulder or for my damaged knees from high school football, I want my doctor to have me as his or her primary focus. I want my doctor to be professionally and ethically accountable to me as his or her patient. I want my physician's best professional thinking and best care, unfettered by hierarchies or rules imposed outside the exam room. I also want each of my caregivers to be fully aware of the best medical science relevant to my situation, and I would like to know that my caregivers are part of a competent and interacting physician team and that the medical team is making sure all team members are delivering solid care. I want to know that the care I receive is the right care for my condition and that my doctor and I can make decisions together about that care. I do not want "rules-based" medicine. I do want accountable care.

Right now, for most of health care, there are no aggregate measures of care performance. There is no aggregate or solo accountability for care outcomes. There is no aggregate reward system for

improving population health. And there is little or no aggregate systems thinking about how to improve the actual delivery of care.

At the individual physician level, there is almost no tracking of key process and outcome measures in highly relevant ways. No one measures in any consistent way how many patients from a given prostate surgeon become impotent or incontinent. Those numbers vary. Without measurement, our process of physician selection by individual patients is a matter of faith, not information. We can do a lot better. We need systems thinking used for key individual performance arenas as well.

To be very clear, our problem is not that caregivers are consciously and deliberately rejecting systems thinking opportunities. Without data, those opportunities simply do not exist. It's also not the case that there was a specific time when process thinking in health care was ever rejected. Systems thinking typically isn't rejected in health care. It simply hadn't even been considered. Systems thinking opportunities just plain never come up in most health care settings. Without data, systems thinking is not even on the table to be rejected. Typically, in American care settings there are no current data, no comparative data, and no perceived need for data. There are no performance comparisons, and no perceived need for data comparisons.

Should we really want comparative data? Think of that question as a patient yourself. Imagine that you have just been diagnosed with cancer. A potentially terminal cancer. If you hear, as a patient, that over the past decade, one oncology group had a 90 percent five-year survival rate for Stage IA breast cancer, and another group down the street had an 80 percent survival rate, would that have an impact on which oncology group you personally chose for your care? It might. That powerful set of data also might cause the oncology group with an 80 percent score to figure out how to get to 90 percent. Or better.

We know right now that there is up to a 60 percent difference in the five-year mortality rates for breast cancer patients, depend-

ing on which hospital's surgical team did their actual surgery.[36] Those differences exist in the real world. If you are scheduled for surgery, would you like to know which surgeon had which survival rate? I suspect you would.

Those kinds of measures are possible, but only if we make a few key changes both in how we purchase and keep track of care. We need systems thinking and systems data in care delivery. A good place to start is with the four hard truths this chapter has introduced.

Let me remind you of those four hard truths we need to consider if we truly want to reform American health care. We need to keep in mind that 1 percent of our population uses 35 percent of our care dollars. We need to be very aware of the fact that care linkage deficiencies currently cripple our ability to deliver optimal care to far too many of our patients. Financial incentives in health care now too often work directly against optimal care. And we need to be aware that almost no one in health care thinks consistently, systematically, or even knows how to think systematically about major elements of real operational care improvement. There are notable and very encouraging exceptions, as you will read later, but that's the reality today for almost our entire American health care infrastructure.

With those four key facts of life as a foundation for our thinking, let's look at some tools we could use to improve care delivery in this country.