Thoracic and Cardiovascular Surgery

Creating a High-Value Delivery System for Health Care

Elizabeth O. Teisberg, PhD,*,† and Scott Wallace, JD, MBA*,‡

Health care reform that focuses on improving value enhances both the well-being of patients and the professional satisfaction of physicians. Value in health care is the improvement in health outcomes achieved for patients relative to the money spent. Dramatic and ongoing improvement in the value of health care delivered will require fundamental restructuring of the system. Current efforts to improve safety and reduce waste are truly important but not sufficient. The following three structural changes will drive simultaneous improvement in outcomes and efficiency: (1) reorganizing care delivery into clinically integrated teams defined by patient needs over the full cycle of care; (2) measuring and reporting patient outcomes by clinical teams, across the cycle of care and for identified clusters of medical circumstances; and (3) enabling reimbursement tied to value rather than to quantity of services. Many of these changes require physician leadership. We discuss steps on the journey to value-based care delivery.

KEYWORDS health care reform, outcome measures, quality, value, competition

When it comes to health care, everyone has a story. Some of those stories are of nearly miraculous recoveries, courageous life journeys, or dignified end of life experiences, told with deep respect and compassion for everyone involved. Too often, however, the stories relate the grief, anguish, and frustration of those who fell through the plentiful cracks of a disjointed care system. These stories reflect poor coordination of care, fear and confusion, incorrect diagnoses, unnecessary pain, an inability to receive appropriate care, or bankruptcy. Despite the amazing technology and wealth of this nation, health care underperforms its potential due to high and rising costs, frequent errors, unacceptable rates of infection, wide variation in processes and outcomes, ethnic disparities in care, and insufficient prevention of disease progression.

The problem is not lack of attention. The health sector attracts intelligent, capable, and caring professionals, most of whom work extremely hard to improve health and wellbeing for their patients. Extraordinary amounts of earnest effort, political capital, and financial resources have been poured into health policy reform initiatives over the past 2 decades. Most of the attention, however, has not addressed the fundamental problems. Certainly, issues of cost, access, and administrative waste are significant. However, fundamentally, the goal of health care is health, and the heart of health care is delivery. Successful reform cannot neglect the needed restructuring of health care delivery. Reform that attempts to expand access and contain costs will lead to ever-increasing rationing unless it dramatically improves the value of care delivery.

Value in health care is the improvement in health outcomes relative to the money spent.[1,2] Ironically, although few dispute that the goal of health care is health, reformers rarely focus on health outcomes, on the improvements in health resulting from care. Instead the discussion emphasizes cost, cost-shifting, and access. The spurious assumption persists that improving outcomes necessitates higher costs.

In health care, patient outcomes define quality. As in most sectors of the economy, quality can be enhanced in health care by preventing errors, reducing waste, and improving coordination. Each of these changes creates better outcomes and experiences for patients. Each also brings costs down. Reducing waste and errors, however, is just the beginning. Quality improves through prevention and through engaging patients in improving their health. It is enhanced by organi-

*Darden Graduate School of Business, University of Virginia, Charlottesville, Virginia.
†Institute for Strategy and Competitiveness, Harvard Business School, Boston, Massachusetts.
‡The Batten Institute, University of Virginia, Charlottesville, Virginia.
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Address reprint requests to Elizabeth O. Teisberg, PhD, Darden Graduate School of Business, University of Virginia, 100 Darden Blvd., Charlottesville, VA 22903. E-mail: eot3f@virginia.edu

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zation that reduces delays, fosters team approaches, accelerates learning, and expands expertise. Quality, and therefore, health outcomes improve by enhancing diagnostic abilities and enabling better choices of care, treating diseases earlier, using less invasive surgical techniques, ameliorating disability, and reducing the need for long-term care.

Reform can improve health outcomes in ways that improve efficiency. Patients and their families want better health outcomes, not necessarily more treatment. Moreover, living in good health is inherently less expensive than living in poor health. Diabetes offers a clear example. The cost as well as the quality of life for a person with well-managed diabetes are vastly superior to those of a person with severe and progressing complications.[3] Given the skyrocketing incidence of chronic disease, successful reform must focus on improving value by improving health outcomes. All other paths spiral up toward greater cost and increased rationing.

Health Care Reform: Addressing the Symptoms Is Not Enough

The high cost of health care is a vexing problem for American employers, for families, and for state and federal governments. It is therefore no surprise that health care reform discussions myopically cling to cost reduction. Surely there is too much waste, and waste should be reduced. However, cost reduction is the wrong goal for health care reform. If the goal of reform were simply cost reduction, painkillers and compassion would suffice. Framed less extremely, dramatic cost reduction could be achieved by paying for less and thereby imposing more rationing. However, that would neither improve health for patients nor enable health so that people do not become patients. Simply reducing the national spending on health care would not improve the value of the care that is delivered. Cost reduction is a necessary part of the solution, but as the goal, it badly misdirects reform.

As an issue second only to cost, access also dominates reform discussions. Meaningful universal access is critical for economic efficiency as well as for equity. Lack of affordable access to primary and early stage care pushes millions of Americans to delay care and to seek care in the most expensive settings. Every country that has universal preventive and early stage care has lower per capita health care costs than does the USA.[4] This result is not subtle or knife-edge. These lower per capita costs prevail across a wide variety of international health care structures: private insurance or public, different depths of employer involvement, single or multiple payers, government-employed physicians, or private practices. Most European countries experience fewer chronic diseases, which may be due to cultural factors, or to more effective early-stage health care, or both. However, whether access or cultural factors drive the cost burden of chronic disease, universal access is critical, and yet not the full solution. Universal access will not lead to fewer errors, or less variance in process and outcomes, or the end of ethnic disparities in care and results, or rationalize bureaucracy and reverse the micromanagement of medical practice. Without other simultaneous changes, universal access will drive costs up, at least in the short run, as people who have not had early-stage care enter the system at the same time that more people begin to seek preventive care. The increased demand inherent in the start of universal access will, without delivery system changes, have to be served with the same approaches and resources that are already overburdened. Thus, although universal access is necessary, it is not sufficient. The introduction of universal access will make improving the value of care delivery even more urgent.

Reform discussions also take aim at the bureaucracies everyone loves to hate and promises dramatic reductions in administrative costs. However, reducing administrative costs will not solve the conundrum. Administrative costs are 7% of total United States health care spending; important but meaningless without a focus on the care delivery that consumes the other 93%.[5] The McKinsey Global Institute also estimates that in the USA, administrative costs account for 14% of the overspending on health care ("overspending" is the additional amount spent on health care by the USA when compared to the amount spent by other industrialized nations, and adjusted for the relative wealth of the countries). Moreover, the hope that an administratively agile single payer will change the administrative cost profile and focus on quality may be wishful thinking. A single payer facing budget pressures could be tempted to use its extreme bargaining power to reduce payment, ration care, and increase waits by limiting supply. The quest for quality could easily devolve to process specifications and micromanagement of medicine. Most significantly, though, changing who pays does not solve the central question of how to drive dramatic and ongoing improvement in value for patients.

Consumer-directed care does not affect the structure of care delivery and therefore cannot impart greater value to it. Providing more and better information to consumers and having more people actively engaging in improving their own health are unequivocally good outcomes. However, not even the most informed, most activated consumer can change the dysfunctional structure of care delivery. Consumers cannot revamp the poor coordination of care, create mechanisms for clinical teams to learn about improvement, resolve disjunctions in the continuum of care they need, or change the organizational structures of providers.

These changes must come from clinicians and teams bent on improving results. Physicians need to step up to the challenge. Realigning care delivery around creating value for patients is physicians' best path to reducing bureaucracy and frustration, enhancing professionalism, and reconnecting with the reasons for becoming a doctor in first place. Physicians can make organizational and structural changes that improve health and care for patients.

Creating a High-Value Health Care System

The goal of improving health care value requires a patient-centric system that delivers solutions to patients and fami-

lies.[6] Today's system focuses on procedures and visits that can be reimbursed. Value for patients is created by finding solutions that improve health and the quality of life. Procedures and visits may be part of this, but neither is necessarily a solution. Value is undermined by encounters that are fragmented, disjointed, or poorly coordinated. Value for patients and families is increased by avoiding the need for care, or by succeeding with early-stage care in ways that reduce the need for more acute care or the amount of long-term disability. Value-improving solutions focus on the goal of health, rather than just on treatment.

Focusing on solutions for patients supports physicians', nurses', and other caregivers' professional roles and aspirations. The focus of value-based care delivery on improving results creates positive sum competition in which teams work together to improve patient outcomes. Many notions of competition are distasteful or ill-advised in the medical context because they are about dividing value and succeeding only at the expense of someone else. In contrast, competing to improve value for patients means competing to provide better medical care, enable better health, and restore professional satisfaction for clinicians.

When improving value is the goal, the interests of all participants align. When the patient achieves better health, the clinical team succeeds professionally and financially, the family is better off, the employer and health plan face lower expenses over time, and society experiences greater productivity. Value offers positive alternatives to pitting against each other those who provide care, who pay for care, and who receive care.

Today's system, however, misaligns medical success and financial success and impairs medical professionalism. Physicians and teams often feel pressure to do things in ways that conflict with their training and judgment. After an abbreviated appointment, a defensive decision is made, bolstered by care recommendations based on what will be covered or reimbursed rather than what is most effective and most needed. Care is narrowly defined around specialties rather than patient needs. Lost in all of these pressures are solutions encompassing the full cycle of patients' care. Pushed aside is the satisfaction of medical professionalism. This need not be the path of the future. The required change in course is fundamental, and thus physician leadership is essential.

Improving Outcomes in Clinically Integrated Care

The widespread fragmentation of care undermines outcomes and efficiency. A coordinated team that sees the patient through the whole cycle of care, tracks patient outcomes, and consciously accelerates learning is rare—the exception rather than the rule. Tackling clinical integration head-on challenges the status quo in fundamental ways.

The following three changes will drive dramatic and ongoing improvement in outcomes and efficiency: (1) reorganizing care delivery into clinically integrated teams defined by patient needs over the full cycle of care; (2) measuring and reporting patient outcomes by clinical teams, across the cycle of care and for identified clusters of medical circumstances, and (3) enabling reimbursement tied to value rather than to quantity of services. All 3 are being done in some places, demonstrating absolutely that they are feasible. None is common. Each could make a tremendous difference in health outcomes and the efficiency of care delivery.

Clinically Integrated Teams

Value is created for patients by effectively addressing their medical circumstances to improve their health and quality of life. Today's medical care is usually structured around medical specialties, procedures, or facilities. That structure rarely overlaps perfectly with a patient's medical circumstances. Improving solutions for patients and families requires recentering care from medical specialties to patient circumstances. From the patient perspective, today's care is fractured, difficult to navigate, and fraught with errors. Caregivers are often poorly informed about the state of the established, effective medical knowledge, or even what actions are being taken by other caregivers treating the patient. Patients and families are forced to coordinate myriad appointments, reconcile conflicting advice, ensure records are accurate and shared, and hope that care is appropriate and current. The energy required to manage the care process adds an unwanted challenge to complying with medical advice and making lifestyle changes to diet and exercise.

This fractured system makes little sense. From the patient's' perspective, a medical condition is what is wrong. It is an interrelated set of medical circumstances that are best addressed with integrated care.[7] For example, to the patient, common co-occurring circumstances, such as diabetes, hypertension, and neuropathy, are 1 condition, not 3. Giving the patient a solution, in other words creating value, comes from addressing effectively the entire set of circumstances that comprise the patient's condition.

It is rare that a single physician can competently treat the entire set of medical circumstances of a patient over the full care cycle. However, teams of caregivers can, particularly when they include physicians, nurses, nurse practitioners, and allied health workers. Restructuring care delivery around patient-centered teams is a radical suggestion that requires caregivers to participate in multidisciplinary teams. Hospitals and clinics remain multidisciplinary with a wide array of services but organize around patient needs instead of, or in addition to, departmental structures. Integrated practice units are organized around the customary coordination needed for most patients, although some patients with particularly complex circumstances are cared for by multiple teams. Today, most care is organized to provide flexibility for the unusual patients, achieving that by reducing coordination for most patients. The integrated practice unit develops improved processes, communications, and outcome measures for the types of patients it serves. It gains broader expertise around these patients' medical conditions. This broader expertise hugely benefits patients and clinicians by enabling more effective and more efficient care, as illustrated

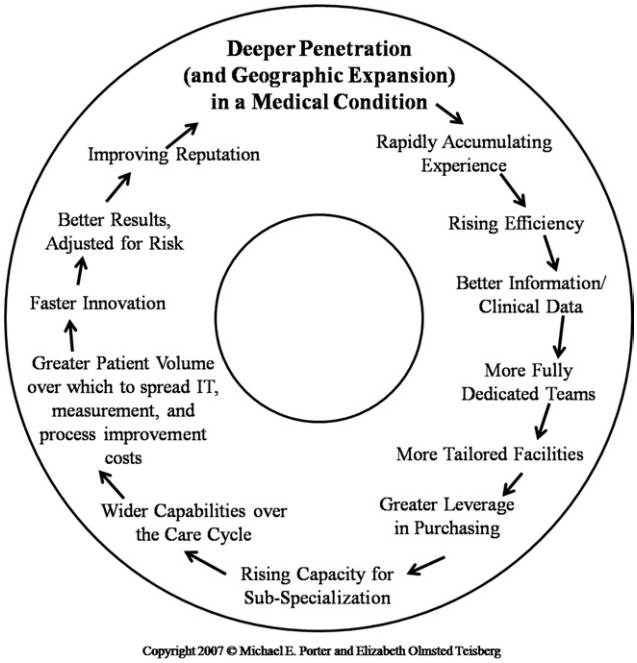

Figure 1 The virtuous circle in health care delivery (Source: Porter ME, Teisberg EO: Redefining Health Care, Boston, MA, Harvard Business School Publishing, 2006, p 113).

by the virtuous circle in Fig. 1. The innovation and learning fostered by integrated practice units rapidly improves outcomes and dramatically enhances the professional satisfaction of physicians and other caregivers.

The idea of clinically integrated teams addressing the full care cycle needs of patients is also radical because it challenges the standard boundaries between outpatients and inpatients, between acute care and long-term care, between treatment and prevention, and between types of care, such as consultation, procedures, and drugs. In today's system, much of the effort at cost management merely shifts costs from one side of one of these boundaries to the other, with no real overall cost reduction. Cost shifting does not create value. Perversely, it often reduces value by undermining care, complicating coordination, or raising administrative costs.

Integrated practice units also enable broader expertise along the dimension of patient solutions and the full cycle of care. Rather than the extremes of ever-narrowing expertise or the unrealistic demand that physicians can expertly serve all patients, knowledge becomes deeper on the sets of co-occurring conditions patients typically face. Teams that address cystic fibrosis, for example, are broadening their services as they succeed in improving outcomes. At Fairview Hospital in Minnesota, as the expected lifespan of patients with cystic fibrosis approached 50 years, patients lived long enough to have and raise children, so special obstetrical services were added to the cystic fibrosis team's expertise.[8] Similarly, effective team-based care at the Joslin Diabetes Center in Boston has begun awarding medals recognizing patients who have lived 50 and 75 years after their diagnosis of type 1 diabetes.[9] These increasingly aged patients require different services than people with diabetes used to require, giving rise to the emerging field of geriatric Diabetology.

Integrated practice units address co-occurring circumstances. In Massachusetts, the Commonwealth Care Alliance (CCA) redefined services for elderly adults on Medicare and Medicaid who have multiple chronic diseases.[10] This group

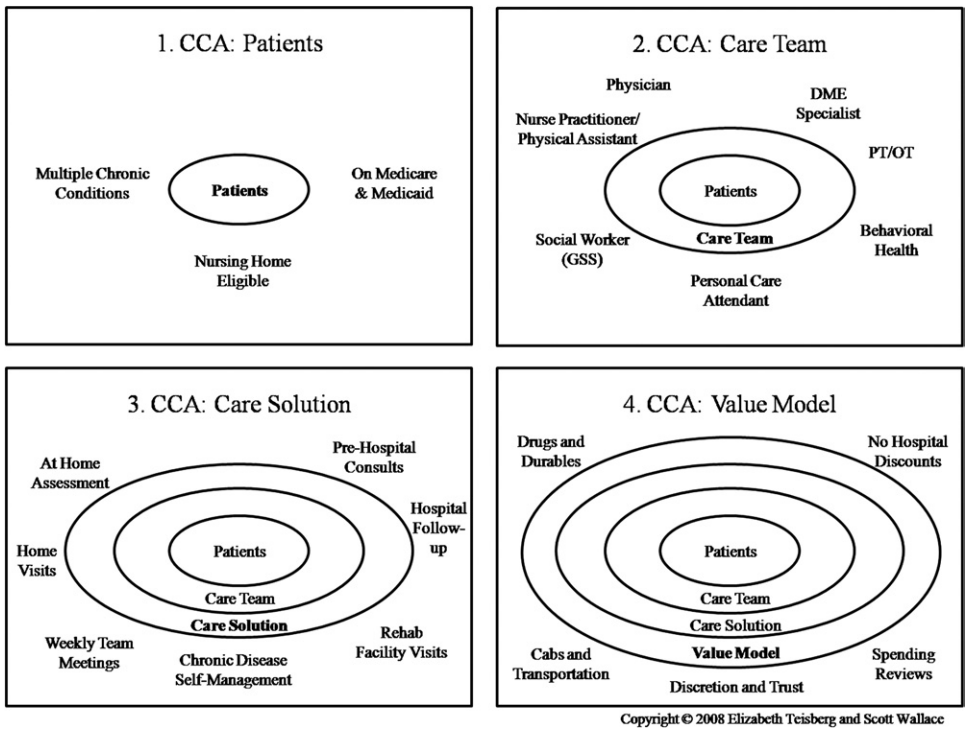

Figure 2 Commonwealth Care Alliance of Massachusetts, care delivery model.

of patients has special shared needs far more specific than the norm in a geriatrics practice, so CCA's team delivers care differently, as shown in Fig. 2. CCA pays for drugs and durables as part of the care. The CCA care teams assess patients in their homes to better understand the patient's situation and circumstances. They provide 24-hour phone support, so patients call CCA rather than, or before, calling for an ambulance. CCA even provided a taxi to church for a patient who achieved better self-care when she could leave her home to attend church weekly. Despite all of these extra services, CCA saves money compared to the cost of the hospital and nursing home care for which most of the patients are eligible. The definition of the medical condition of CCA patients remains broad because it encompasses multiple chronic diseases, but the care model is customized for the group, with smaller individual adjustments. With standard geriatric care, most of CCA's patients would be living lower quality lives inside of nursing homes.

Clinically integrated teams address the frustrating, confusing, and time-consuming morass of scheduling and attending multiple appointments and the lack of shared information. For patients with migraines, for example, an integrated team of neurologists, physical therapists, and psychologists can dramatically reduce the time required to diagnose and treat patients. In the usual structure, a patient with migraines will see a physical therapist or neurologist or psychologist or primary care physician and try the treatment approach of that particular specialty, moving to the next specialist if the migraines persist. Correct diagnosis and treatment can take months, while the patient continues to experience extreme, often debilitating pain. At the West German Headache Center, an integrated practice unit for migraines within a hospital, the percentage of patients missing a week or more of work from a migraine episode dropped from 58% to 11% in the first 6 months of the new structure.[11] That improved outcome reflects dramatic pain reductions as well a significant productivity improvement. Both are evidence of value creation.

Diabetes care illustrates how clinical integration may differ among teams as it develops. The Joslin Diabetes Center in Boston integrates endocrinology, diabetes education, eye care, and nephrology in its facilities. The Steno Diabetes Center in Copenhagen integrates endocrinology, diabetes education, and podiatry. Both centers have multidisciplinary diabetes teams and facilities that colocate many medical and laboratory services needed by patients with diabetes. Both have care managers and educators that help patients deal with their medical circumstances, appointments, and lifestyle changes. Both coordinate closely with hospitals for acute care for complications but aim to prevent complications and delay disease progression. Research at both centers reflects a multidisciplinary view of clinical care.

The MD Anderson Cancer Center organizes all of its care in multidisciplinary groups around types of cancer. Because surgery is not a patient condition, surgery clinics have not existed since the early 1990s.[12,13] Some services are shared and some patients need to see multiple teams, but the basic structure is organized around the needs of patients with particular types of cancer. For a patient with breast cancer, for example, the integrated structure may accelerate the process of diagnosis and treatment choice by weeks, speeding care delivery and reducing overall stress. The structure not only affects patient care, it also changes the patterns of learning and research. Physicians explain that working in MD Anderson teams prompts different clinical research questions and different perspectives on the answers than those they experience at other leading hospitals with departmental structures. They recall the surprise they felt when first experiencing the difference, realizing that they had not understood how departmental barriers slowed the improvement and clinical research processes.

In many current organizational structures, physicians and nurses think of themselves as part of a team. They work hard, call each other on weekends, and care deeply about their patients. Few, though, truly function as a team. Sometimes they form temporary teams around particular patients. Sometimes they are teams based in different locations, without time to meet and reflect on what is working or not working and why. They do not explicitly work together to measure and improve outcomes for patients. As a result, they do not accelerate learning as a team could. They assume they are doing well because patients are grateful, but they usually have no measures of the whole team's results. In contrast, caregivers in an integrated practice unit work together daily on similar sets of co-occurring conditions, develop clear expertise around those conditions, can measure and assess outcomes, and can accelerate improvement.

Measuring Outcomes

Teams increase value by improving outcomes for patients. Without measures, providers live in the health care district of Garrison Keillor's Lake Wobegon. They each assume that the health outcomes of their patients are above average. Those with a more realistic assessment of their patient's health outcomes can rationalize the results by assuming that their patients are more complex. If outcomes were similar across different clinical groups, this would be a nonissue. However, research incontrovertibly documents wide variations in outcomes of care.[14] Some patients are receiving significantly subaverage care. With clear evidence of variation, and patients forced to recognize that Lake Wobegon is a fictional town, the need for measurement is significant. Clinicians need accurate information on their patients' outcomes.

Measuring and reporting outcomes gives clinical teams a critical tool for accelerating learning. Outcome data illuminate what is working well, what needs to improve, and when changes lead to better results. Knowing outcomes, teams can develop insight on what approaches work best and for which patients. As teams track their processes, the most effective processes for a particular group of patients can be identified based on results. Outcome measures are not a substitute for clinical trials, but they can significantly augment them.

Physicians are often apprehensive about measures, for some very good reasons and for some less well-founded reasons. Often the first concern is that the risks or differences

among patients will not be sufficiently taken into account. Certainly, measures will not be perfect, so the strong implication is that teams should characterize the issues or comorbidities that they think are not included and validate the assumption. Often, though not always, this check demonstrates that differences in patients' initial medical circumstances do not explain the results as much as expected. Other times, the analysis provides insight on patients for whom care processes should differ.

Outcome measures are primarily needed to accelerate learning, which in turn enables improvement. Therefore, although publishing outcomes data are essential, private reporting or anonymous comparisons can be good starting points. Teams can experience the benefit of measuring and improving if they have medical evidence of good practice and a benchmark of their own patients' results relative to those of other teams. Anonymity can be discontinued after teams have learned to work with the data, have experienced improvement, and have confirmed the validity of the measures. Then, the advent of public reporting tends to drive another leap in improvement, as it did with diabetes care in Minnesota.[15,16]

Another concern is that outcome measures will be used as report cards or will cause practices to close. Indeed, some policymakers are keenly interested in the measures condescendingly called report cards, so creating meaningful measures is important. Because resisting measurement simply pushes it into others' hands, physicians need to proactively develop meaningful measures that will help them to answer questions and improve care. The concern about closing practices is less grounded. Most groups do provide many services and carry out some services better than others. So a redistribution of effort is far more likely than the closure of entire practices. If groups do more of what they do well and discontinue services they do poorly (and probably less often), then overall outcomes will improve.

The concern about black and white judgment is also mitigated by the reality that all services have multiple dimensions of outcomes. Mortality, although obviously relevant, is far from the only consideration, as shown in the hierarchy depicted in Fig. 3. Insight is gained by considering not only the outcomes of degree of recovery, but also the outcomes during the care experience (such as the duration of recovery, errors, complications, or benefits of education), and the longer term outcomes, such as the sustainability of gains from treatment or the occurrence of care-induced illnesses. A more sophisticated view of outcomes makes overly simplistic judgments less likely and enables more textured and actionable insights about improvement for the team.

Resistance to outcome measures has pushed policy groups to measure processes, a practice that exacerbates the micromanagement of medical practice. Measuring processes rather than outcomes is essentially measuring inputs instead of outputs. Given highly similar inputs, different teams will still achieve varying results. Indeed, an Italian study of diabetes care found better process compliance in northern Italy than in southern Italy, but better outcomes in the south than in the north.[17] Process compliance simply does not guarantee better outcomes. Of course, process does matter, and every team should track its processes to understand how it achieves its outcomes. However, the critical yardstick for patient value (and quality of life) is the outcomes achieved.

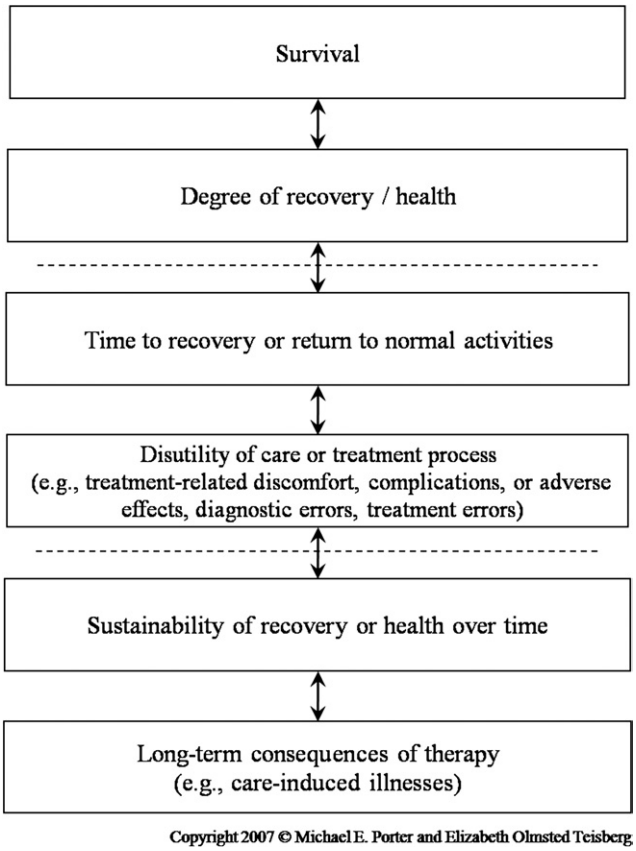

Figure 3 The outcome measures hierarchy. (Source: Porter ME, Teisberg EO: Redefining Health Care. Boston, MA, Harvard Business School Publishing, 2006. Presented by EO Teisberg to the Civic Entrepreneurs Organization, St. Louis, MO, May 17, 2007.)

Efforts to measure outcomes must begin with imperfect measures, but fortunately the fastest way to improve outcome measures is to start using them. The state-of-the-art measures used for cardiac surgery were motivated originally by public reporting of very rudimentary (and some thought misleading) mortality data. In response, the Society of Thoracic Surgeons began developing measures that have become far more sophisticated, are applied to a much wider array of surgeries, and are driving improvement nationwide. Work is underway to extend measures to cardiology care before and after surgery, driving greater understanding of outcomes along more of the care cycle for patients' medical conditions.

Measurement now typically reflects the fragmentation of health care with data collected by procedures, visits, episodes, or facilities, rather than across the patient's care cycle. However, value is created over the full cycle of care through the combined efforts of many people. Outcome measurement needs to combine more pieces. For example, even after it is clinically indicated, insulin treatment for patients with type 2 diabetes is often delayed in the outpatient setting because patients view insulin treatment as a sign of failure. Delay however raises the incidence and severity of complica-

tions, many of which are treated in the inpatient setting.[18] Understanding the outcomes of diabetes care across the care cycle helps clinicians discern how to balance patient reluctance against the risk of amputation or heart attack. Study of the long-term developmental outcomes of children who have had surgery for congenital heart anomalies provides another example. If post surgical results do not accord with the long-term developmental results in these children, important insight will be gained about either the way the surgeries are performed or the way developmental issues are addressed by parents and caregivers, or both.

Teams measuring results also open vast new prospects for demonstrating value. In addition to the benefits of improving care and the professional satisfaction of knowing patients' outcomes, measurement builds the trust that can reduce barriers to change in health care.

Demonstrating Value

Trust is an elemental force in most of the economy, but health care, more than most economic sectors, suffers from a profound lack of trust between transacting parties. Murky claims systems frustrate providers with intricate, often idiosyncratic, rules that result in seemingly random payment denials. Health plans auditors comb through records searching for overpayments to providers whom the plans do not trust to accurately true up accounts. Patients frequently view health plans as adversaries and therefore approach them with mistrust. Employers often distrust both health plans and providers whose cost increases are counterintuitive to managers of efficient, cost-contained businesses.

Breaking the cycle of mistrust is an essential step in transforming health care reimbursement, but who has the incentive to move first? Physicians, by demonstrating increasing value for patients and families, can open a door for health plans and employers to restructure payment. By leading with improvements in value, physicians can reduce their own expenses at the same time that they create opportunities for meaningful gain sharing. Put simply, orienting around value can restore trust to health care transactions.

Value fosters transparency and transparency fosters trust. Care teams that deliver the greatest value can benefit the most by sharing information about outcomes. Those with the best outcomes have every incentive to make their results known. Sharing outcomes is the essence of transparency. With information flowing freely, health plans and employers can have greater confidence in the system; trust is easier to maintain. Those who demonstrate the best outcomes gain expanded market opportunities as consumers and employers seek care from the demonstrated leader.

Peabody Energy is a US$4.6 billion coal company that produces coal that fuels one-tenth of all the electricity generated in the USA. Last summer, Peabody announced that it had begun reviewing hospitals around the country and giving incentives to workers to have their surgical procedures performed at those with the best outcomes for the needed care. Two-thirds of Peabody employees' surgical procedures were done at better rated hospitals out of state. For those hospitals, and the surgeons working there, demonstrating greater value expanded their opportunities.[19]

Much of the current health care system's irrationality persists because the parties do not trust each other enough to risk change. Well-intentioned, mutually beneficial innovations are routinely stifled because 1 party doubts the motives of another in recommending it. Few people are content with the current health care system, but change implies risk and accepting risk requires trust. Rebuilding trust in health care will not happen quickly, but it can happen when the opacity of current interactions is replaced with transparency in the context of a shared goal of value creation.

Current efforts to change payment, driven mostly by payers (health plans, employers, and government), tend to focus on pay for performance, which has largely developed into pay for process compliance. Like many reform proposals, this implementation has morphed into administrative management of medical practice, increasing bureaucracy and undermining trust.

Demonstrated value creation opens a new channel to discuss team reimbursement for care of a cluster of medical circumstances over a broader portion of the cycle of care. Teams that develop excellence will gain higher margins through either higher prices or lower costs. Higher prices may be advantageous to payers when the health care provided reduces later costs through fewer additional or repeated procedures, lower rates of complications, or less disability. Alternatively, teams may attain higher margins (more revenue left over after costs) by achieving cost reduction through greater efficiency, fewer errors and infections, better coordination, and expert delivery of appropriate care, all cost reductions that improve value for patients. For some medical circumstances, such as pregnancy, the boundaries of what is included in the cluster of services will be relatively limited. For teams treating complex chronic diseases, such as diabetes, or for teams treating patients with multiple chronic diseases, the cluster of services might be very inclusive, or even all-inclusive. Deciding what to include depends on the care that commonly needs coordination and the care for which value is significantly affected by coordination. Knowledge of what services each team needs to be coordinated tightly for patients with coronary artery disease or cystic fibrosis or breast cancer is not generally discussed, but in fact, caregivers who work in these areas have it. Choosing the breadth of team boundaries will also rely on clinical experience. For example, a pregnant patient with a broken arm requires a relatively unusual coordination which could be loose without generally hurting outcomes. Teams would logically define those as 2 medical conditions with separate teams and separate reimbursement. Coordination for such a patient would be simpler as coordination between 2 teams rather than today's need for coordination among a large number of separate activities. So, although defining a team and the relevant medical condition requires attention, the task is not daunting for experienced clinicians. Some employers, and even some health plans, are eager for new payment models and may engage in the discussion before the new teams have

demonstrated value. Many more will be willing to consider change when demonstrated value creation can restore trust.

Starting the Journey

The journey to redefine health care delivery organizations and structures in ways that enable dramatic improvements in value will start from many places. There is no top-down, immediate solution that will create the needed change to team-based care delivering value-creating solutions for patients and families. Government can support the change by enabling universal access, requiring all physicians or teams to collect outcome data, and promoting data definition standards that ensure interoperable clinical records systems. Physicians, clinics, and hospitals will need to lead the restructuring of care delivery.

There are ample opportunities for each to improve quality in ways that are financially advantageous. These nonconflicting opportunities will open the next set of doors. For example, driving medical errors out of existence not only improves quality and reduces costs, but it also accustoms a team to looking at outcomes and figuring out how to improve them. Working toward a goal of no errors may involve a significant cultural change for a team or organization. That change will enable measurement and improvement of many other outcomes, accelerating progress in improving value.

So where does one start? Think like a patient and define the set of medical circumstances whose comprehensive treatment will deliver value. Organize a team around as many of those circumstances as possible. Think carefully about who should be on the team and who can do the work most effectively and most efficiently. Consider what information is available to measure outcomes and start the process. No measure is perfect, but all can be improved with experience. Finally, share the information about value creation with employers and health plans. The status quo has no fans. Lead the change that restores professional satisfaction and delivers health—and value—to patients.

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