

A stylized, abstract graphic in shades of teal and grey. It features a face with large, expressive eyes, a small nose, and a wide, open mouth. The face is partially obscured by a large, dark, wing-like shape on the left side. A vertical cross-like shape is positioned in the center, overlapping the face. The background has a textured, cracked appearance.

EDITED BY EINER ELHAUGE

THE FRAGMENTATION OF U.S. HEALTH CARE

CAUSES AND SOLUTIONS

OXFORD

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OXFORD
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www.oup.com

ISBN 978-0-19-539013-1



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1. WHY WE SHOULD CARE ABOUT HEALTH CARE FRAGMENTATION AND HOW TO FIX IT

EINER ELHAUGE

THE MEANING AND DIMENSIONS OF FRAGMENTATION

What does health care fragmentation mean? I take the term to mean having multiple decision makers make a set of health care decisions that would be made better through unified decision making. Just as too many cooks can spoil the broth, too many decision makers can spoil health care. Individual decision makers responsible for only one fragment of a relevant set of health care decisions may fail to understand the full picture, may lack the power to take all the appropriate actions given what they know, or may even have affirmative incentives to shift costs onto others. All these forms of fragmentation can lead to bad health care decisions. It is my privilege to introduce a terrific series of chapters by leading scholars on this topic. In this chapter, I hope to elucidate some common themes in their work, build on them by connecting them to general theories of firm integration and team production, outline some areas of difference, and recommend some reforms.

As the chapters of this book show, fragmentation can occur along many dimensions. Looking at the most narrow dimension, we might be concerned about fragmentation in treating particular *illnesses*, such as the lack of coordination among the various professionals involved in treating a patient during a single hospital stay. This might occur if, for example, a patient tells one nurse she is allergic to some medicine, but the nurse does not communicate this information, so the nurse on the next shift administers that medicine. A somewhat broader conception would focus on fragmentation in treatments for particular *patients* at any give time, such as a lack of coordination between different providers that a patient might see for different illnesses. This might occur if, say, a surgeon used a high-sugar intravenous therapy after an operation on a diabetic patient without consulting with the diabetic specialist treating the patient. Even more broadly, we might worry about fragmentation for patients *over time*, such as when a private health insurer underfunds preventive care because the costs will be borne later by Medicare. Most broadly of all, we might worry about fragmentation for a *patient group*. This would be the case if disintegration resulted in care being misallocated to patients in the group who needed it less than others. The last dimension also invites the question of whether the appropriate group should be broadened to include others in the state, nation, or even world.

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Under my definition, the fragmentation concept presupposes some normative content, because determining when fragmentation exists turns on baseline assumptions about when we think integrated decision making would produce better decisions.¹ Likewise, positions regarding the proper dimensions of fragmentation to worry about depend on which health care decisions we think should be made in a unified fashion. Worries about fragmentation at the community level raise controversial issues about the extent to which we should have unified decision making about health care allocations across patients. It is less controversial that the care received by an individual patient should reflect some sort of coherent common plan. It is probably for this reason that the chapters of this book focus on the latter dimensions of fragmentation; because there is more consensus about the desirability of more unified decision making regarding these dimensions, there is more consensus about what counts as fragmentation along these dimensions.

However, even at the patient level there may be controversy or tradeoffs about which set of decisions are best integrated. As Professor Hyman's chapter points out, retail health clinics separate some routine health care from other health care, but if we think retail clinics are desirable because they deliver quality care with lower cost, hassle, or delay (the last of which can have important health effects), we would not want to object to retail clinics as "fragmenting" health care. On the other hand, if we thought retail clinics led to care that is inconsistent with the care provided by primary physicians in a way that harmed patient health, then we would likely regard retail clinics as a form of harmful fragmentation.

We thus cannot simply assume that all reductions in health care integration are bad and worthy of the pejorative label "fragmentation." This should not be surprising. After all, other markets feature mixes of integration and disintegration that raise no necessary hackles. Many services provided by, say, a hotel, are integrated into a common company; after checking into the hotel, one does not have to select the housekeeper, concierge, or phone service for one's stay. On the other hand, other hotel services are disintegrated: one can often select among various hotel restaurants or activities with various prices, or choose non-hotel substitutes for either. Further, it seems unproblematic that hotel services are not integrated with the company that provides the air travel that contributes to the common vacation "episode," or with the wireless carrier that provides mobile

1. Some chapters in this book instead use the term "fragmentation" interchangeably with "disintegration," but I find it clearer to use the term "fragmentation" as a normative term, referring to disintegration that is undesirable, and to use the terms "disintegration" or "integration" as descriptive terms, referring to states of less or more unified decision making that may or may not be desirable. My conclusions about what might constitute fragmentation should be compared to what some other chapters would refer to as undesirable fragmentation.

phones to a common individual. Nor does it seem problematic that services provided by one hotel are not integrated over time with the hotel one uses on the next vacation. For many services, aggregation by a series of separate individual consumer decisions seems preferable.

Thus, in order to know which disintegrations to object to as “fragmenting” health care in an undesirable fashion, we need either (1) a theory about the optimal integration of decision making, or (2) evidence of the sort of bad results that must reflect excessive disintegration. The latter unfortunately tells us only which direction in which to travel, rather than what our destination should be: that is, it tells us to fragment less than we do now, but not necessarily what level of integration is best. However, the latter may well be easier to come by than a convincing theory of optimal disintegration. And even a convincing theory may well focus on providing guidance on the process used to set integration levels, rather than establishing a basis for favoring a particular integration result.

EVIDENCE SHOWING FRAGMENTATION

The chapters of this book provide considerable empirical evidence to suggest that U.S. health care suffers from excessive disintegration that worsens outcomes and thus constitutes fragmentation. At the illness level, as several chapters point out, Institute of Medicine studies show that, within any given hospital, many medical errors result because of a lack of effective data sharing and teamwork among the health care professionals working at that hospital. These studies indicate these errors are a systemic problem caused by hospital structure, rather than reflecting some rogue behavior by particular hospitals or individuals, and thus directly support greater integration within hospitals as a way of improving health care.

At the patient level, Professors Hyman points to evidence that the average Medicare beneficiary sees two physicians and five specialists a year, and that those with chronic illnesses see an average of thirteen physicians a year, “each focused on the discrete symptoms and/or body parts within their jurisdiction.” Professors Cebul, Rebitzer, Taylor, and Votruba cite similar evidence that the median Medicare patient sees eight physicians in five distinct practices, and if they have a coronary artery disease, the numbers increase to ten physicians in six distinct practices. They both point to evidence that few physicians are in multi-specialty practices. Nor do Medicare and other insurers pay physicians to spend time coordinating care. Patients or family members thus end up saddled with most of the responsibility for coordinating all the physicians. But patients and family cannot do so effectively because they lack the medical expertise, authority over physicians, or control of the purse strings. The result of this lack of coordination among physicians, an Institute of Medicine report finds, is that

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“patients do not always receive timely care best suited to their needs.” Providing an empirical link between fragmentation and poor outcomes, Professors Cebul, Rebitzer, Taylor, and Votruba point to studies showing that the greater the number of physicians treating a Medicare patient following a heart attack, the higher the costs and the lower the survival rates.

One problem this fragmentation creates, as Professors Enthoven and Hyman note, is that the results of prior treatments or tests are often unavailable or treated with distrust by other providers, and that different providers lack a common information technology structure. Professors Cebul, Rebitzer, Taylor, and Votruba add that only four percent of physicians have fully functional electronic medical systems, and that government studies indicate that fragmented care leads to multiple incompatible formats for medical records. Professors Hall and Schulman focus on this issue, showing that few providers use electronic records, and when they do, their electronic records rarely interconnect with others, a problem that is getting worse over time rather than better. They also shows a clear link between the underuse of electronic records and the fragmentation of providers, by observing that electronic medical records are generally used only in integrated delivery systems that have fixed global budgets like Kaiser or the Veteran’s administration. Outside of such integrated systems, patients or family members often have to keep track of all their prescriptions and test results, but they don’t always have easy access to their medical records and the ability to persuade other providers to accept them. At best, the same records and tests keep getting redone and duplicated, achieving the same health benefit with a wasteful cost increase. At worst, pertinent records and tests end up being ignored, increasing health risks.

At the temporal level, Professors Cebul, Rebitzer, Taylor, and Votruba provide compelling evidence that fragmentation reduces long-term health investments. As they note, “only fifty-five percent of adults receive recommended levels of preventive care, while adults with a chronic illness . . . receive only fifty-six percent of the chronic care recommended by clinical guidelines.” Further, they empirically link these low levels of long-term health investments to fragmentation over time by showing that the more frequently that insureds switch insurers, the less those insurers make efficient investments in long-term health like providing preventive care. Likewise, the higher the costs of switching insurers, the more insurers make such investments in long-term health. In addition, as they and Professors Helland and Klick stress, private insurers and state Medicaid plans have incentives to underinvest in care that would prevent illnesses that will materialize after individuals turn sixty-five and become Medicare’s responsibility. Professors Helland and Klick demonstrate that this is a distinctive problem, citing evidence that state Medicaid programs also fare poorly in delivering preventive care.

The link between insurance and employment exacerbates the short-termism effect, because many changes in insurance are caused by changes in employment

or by employer decisions. Professors Helland and Klick also show that this link creates a different sort of temporal problem, citing empirical evidence that it delays retirement and reduces job mobility.

At the patient group level, Professor Enthoven stresses the RAND study showing that integrated prepaid group practice lowers costs by twenty-eight percent without worsening overall outcomes. I put this evidence at the group level because the RAND study does not actually show that outcomes are unchanged for everyone. Instead, it shows that prepaid integrated practices do provide less beneficial care in many cases, reflecting their incentive to under-care, but also provide less harmful care in other cases, reflecting their elimination of the fee-for-service incentive to provide excessive care.² The net effect on health outcomes is neutral only because the health benefits of the latter effect cancel out the health detriments from the former effect. This means that we might regard the overall allocation with prepaid integrated practices as better for the group as a whole than it would be with fee-for-service care. But it also means that prepaid integrated practices create their own perverse incentives for under-treatment that can harm many patients and that could possibly be reduced with a regime that differs from these two extremes, a topic to which I shall return below.

Likewise, Professors Cebul, Rebitzer, Taylor, and Votruba stress that there are enormous variations in health care costs between different areas of the United States, most of which cannot be explained by differences in prices, demographics, health status, or health outcomes, but instead seem to mean that some regions spend more on high-cost ineffective care than others. Professors Richman, Grossman and Sloan demonstrate a similar sort of inter-group variation based on race and income, showing that—even with equal insurance coverage—whites and high-income individuals consume more mental health services, and are more likely to get those services from a mental health professional rather than a general practitioner. They also show that this variation in treatment does not produce a variation in outcomes, thus suggesting that the additional mental health services obtained by whites and high-income individuals are ineffective or have offsetting benefits and harms. A less fragmented system might produce a more effective and equitable allocation of health care.

Cutting across all the levels is other evidence showing harm from fragmentation. For example, Professors Cebul, Rebitzer, Taylor, and Votruba point out that administrative costs in our disintegrated U.S. system are \$1059 per capita. The fact that this is an astonishing thirty-one percent of total health care expenditures itself suggests that excessive administrative costs are being imposed. This seems confirmed by the fact that these U.S. administrative costs are \$752 more than the administrative costs in the less fragmented Canadian system. Nor are

2. See JOSEPH P. NEWHOUSE, *FREE FOR ALL? LESSONS FROM THE RAND HEALTH INSURANCE EXPERIMENT* 283 (1993).

the costs all borne by insurers: the United State's additional administrative costs are \$212 for insurers, \$212 for hospitals, \$217 for practitioners, and \$49 for employers.

Finally, the chapter by Professors Daemmrich and Greene demonstrates an entirely different dimension of fragmentation—fragmentation in gathering information for purposes of making regulatory decisions. Specifically, they focus on fragmentation in monitoring the side effects of drugs after they have been introduced in the marketplace. Traditionally, post-marketing monitoring took the form of centralized collection of individual case reports initiated by physicians or patients. More recently, it has often taken the form of episodic statistical analysis of large databases that either already exist or are created in targeted phase-IV clinical trials. The problem is that these sources can provide conflicting results based on variations in how the analysis is done. They argue that a better, more integrated approach would be to first use standardized case reports collected by pharmacies to identify possible risks, next analyze the probabilities of these risks with statistical analysis of existing databases, and then design and run a large new phase IV clinical trial that would provide the definitive guidance on what the FDA should do about the drug.

Theory Indicating Fragmentation

Does theory also suggest excessive health care fragmentation? I think that the answer is yes given general economic theory on firms and team production, which provides a theoretical framework to understand the observations discussed in the other chapters of this book. Professor Coase first pointed out that the fact that business firms were characterized by centralized control (rather than allocating their resources via internal markets) must mean that such coordinated control had some efficiency advantages over decentralized market transactions for some important set of joint production activity.³ Professor Alchain and Demsetz followed up by showing that the major efficiency advantage to using firms was that trying to use a market system to reward team production often creates incentives to shirk, because it is often hard for the market to measure and reward each team member's contribution to the team production.⁴ Firms minimize this problem by creating an owner who (1) has the power to select, direct, monitor, and reward or punish team members based on their contributions to the joint product and (2) has a residual claim to any profits on the sale of the joint product that are left after all the team members are paid. The easier it is to measure the contribution of inputs without observing them, the more likely a firm is to contract out those activities, such as when a firm buys

3. Ronald Coase, *The Nature of the Firm*, 4 *ECONOMICA* (n.s.) 386 (1937).

4. Armen Alchain & Harold Demsetz, *Production, Information Costs, and Economic Organization*, 62 *AM. ECON. REV.* 777 (1972).

pencils or gallons of oil rather than making them itself. But when an activity both requires team production and is easier to assess by observation than with market rewards, then the firm will encompass that activity. The residual claim to profits is important because it gives the owner efficient incentives to police shirking and coordinate the team members efficiently to create the joint product.

Applying this theoretical framework suggests that health care raises the mother of all team production problems where input contributions are difficult to measure. Many doctors, nurses, technicians, drugs, devices, tests, and resources must be combined in complex ways to produce the common result of healthy outcomes for individual patients or groups of them. Yet it is fiendishly difficult without close observation to determine the contribution of each. In health care, shirking seems unlikely to take the form of not working because everyone in health care seems to work pretty hard. Rather, in health care shirking is likely to consist of failing to coordinate with others involved in the team effort on strategy, timing, and information-sharing in order to maximize health benefits per costs expended. The situation thus cries out—even more than most industries—for an owner who can select, direct, and closely monitor the various contributors, and reward or punish them accordingly.

Unfortunately, U.S. health care couples the mother of all team production problems with the mother of all refusals to use centralized ownership structures to solve them, as the chapters in this book show. Even a single hospital stay generally means the patient is treated by multiple physicians who are independent contractors, each paid a fee for their services that is separate from the other physicians and from the fees the hospital receives for providing support. This is so even when the hospital receives flat payments from Medicare for a diagnosis-related group, because those fees cover only hospital support services and not physician fees. The hospital usually cannot direct or monitor the substance of physician decisions, which are instead subject only to medical review by the other physicians who comprise the medical staff. Further, because neither the hospital nor the medical staff pays the physicians, they lack the power to give the sort of significant financial rewards or penalties that might induce compliance with any directions. The hospital and medical staff can perhaps select which physicians have privileges at the hospital, but the law often prohibits selections that are based on grounds other than medical competence, and because hospitals depend on physicians to bring them patients, they have little incentive to make selections on other grounds anyway.

Indeed, hospitals and medical staffs generally have little financial incentive to direct and monitor physicians efficiently because neither is a residual claimant that would gain any additional profit by coordinating physicians and other inputs more effectively. Instead, the hospital's incentive is to allow case management to be controlled by the doctor who brings in the patient, like the surgeon who admits a patient for a procedure, even if the doctor has little incentive or interest in managing the case once the procedure is finished. Not surprisingly, such doctors often

spend hardly any time on case management, with the unfortunate result that no one is really managing the case. Some hospitals have innovatively begun to hire case managers to deal with this problem, but their ability to do so is limited because case managers lack any real power over the admitting physicians; furthermore, the hospital has strong financial incentives to please those admitting physicians and little incentive to improve case management. The incentives would be different if the hospital got paid a fee for all services necessary to achieve some medical result, like a successful surgery, and then selected and paid the physicians and other inputs out of that payment. But that is not the world we live in.

Instead, the current payment system perversely provides disincentives for any provider to invest in coordination or care that might lessen the need of patients for health care, because (as Professors Hyman and Enthoven note) such investments result in fewer payments for medical or hospital services. One nice example of this, stressed elsewhere by Professor Herzlinger, involves the case of Duke University Hospital, which adopted an integrated program to treat congestive heart failure that reduced health problems and cut costs by forty percent, but lost money because this meant Duke had fewer health problems to treat.⁵ In any other market, a new system that provided more value for forty percent less cost would reap enormous rewards; in our fragmented health care system, it was affirmatively penalized.

Outside of a single hospital stay, the problems are even worse. A patient with any complex problem has to visit a series of physicians and care providers, each of which is paid separately and acts autonomously, and who usually are not even in the same building. The patient's primary physician can provide some help in referring the patient to the right specialists. But the primary physician is not a residual claimant who pays those specialists, and thus has little incentive to manage them optimally and little power to do so anyway. Each physician and specialist bills only for its separate services, and no one is paid to manage the case or based on the results of the case. Indeed, the payment system affirmatively discourages the physicians from coordinating with each for the same reason noted above: if coordination lowers the need for services that can be billed, then the physicians will earn less money.

Nor can we count on patients orchestrating the various contributors that will achieve the desired health results, the way we can count on, say, hotel guests to choose the restaurants and activities that will make their vacations enjoyable. The problem is that, unlike consumers in other markets, patients lack the knowledge, power, and incentives to make such decisions optimally. They lack the knowledge because what they are buying is knowledge about what health care they need. They lack the power because often they cannot order medical services

5. Regina Herzlinger, *Why Innovation in Health Care Is So Hard*, HARV. BUS. REV. 58 (May 1, 2006).

or products without provider or insurer consent. And they lack incentives to make sensible tradeoffs because an insurer generally covers the lion's share of the cost.

One might try to count on insurers to manage cases, as managed care promised to do. But insurers never could direct particular medical decisions, and the backlash against managed care has limited the ability of insurers to monitor or select physicians. Even if one could overcome those problems, the root problem would remain that insurers are not a residual claimant, because they do not receive payment for achieving a particular medical result that they use to pay the team members. Instead, insurers earn more profits the less they cover, even if that worsens medical outcomes in particular cases, which is part of what explains the backlash to insurer case management. This insurer incentive to under-care might be attenuated if benefit denials led insureds to switch to other insurers, but if sicker insureds are more likely than healthier insureds to switch insurers in response to benefit denials, then the switching effect can increase insurer profits and exacerbate incentives to under-care. The latter effect seems plausible because sicker insureds are not only more likely to experience (and thus know about) benefit denials, but also more likely to take seriously any benefit denials they hear about.

Insurers do have some incentives to invest in preventive care that might lower the insurer's costs. But here the fragmentation of insurance over time creates inefficient incentives because, as Professors Cebul, Rebitzer, Taylor, and Votruba show, twenty percent of insureds leave their insurer every year. Thus, an insurer has practically no incentive to invest in preventive care that might avoid health problems five years down the line. Indeed, if the preventive care aims to prevent a problem that will materialize after the age of sixty-five, the insurer has no incentive at all because Medicare will bear the costs of the care. I would add, to their convincing analysis, that even an insurer with a lifetime insurance contract would have suboptimal incentives because the only benefit it reaps from preventive care is avoiding the financial costs of treating the later health problem. The health benefits to the patient from avoiding the health problem are not experienced by the insurer, and thus the insurer will have suboptimal incentives to invest in preventive care.

Even if we had an appropriately incentivized entity to manage patient cases across providers and time, such efforts would be hampered by our fragmented medical records. As Professors Hall and Schulman show, there are strong theoretical reasons to blame our fragmented medical records on fragmented providers. The problem is not simply that no one is paying anyone to incur the costs to consolidate and disseminate records in a universal format. The problem is that disintegrated providers have affirmative incentives not to make their medical records available in a format that other providers could easily access because doing so would make it easier for patients to switch to other providers.

Electronic medical records in a common format may make all the medical sense in the world, but they are bad business in a world of disintegrated providers.

In other industries one might think that, if the current organizational structures did such a poor job of managing team production, then some firm would enter this market, adopt the right structure, and sweep the market. But this brings us to our last theoretical reason to think current levels of health disintegration reflect undesirable fragmentation: namely, the current organizational structures are not the result of free market forces, but rather are dictated by a complex set of laws that prevent different organizational forms from being used. I address that issue in the next section on the causes of fragmentation.

Causes of Fragmentation

Fragmentation might have various causes, and it pays to understand which are the actual causes because that bears on the appropriate solutions. Given that we are talking about medicine, it makes sense to begin by asking: are there sound medical or scientific reasons for the current fragmentation of U.S. health care? Certainly none that appeared in any of the chapters of this book. The fact that other nations have far more integrated health care systems and hospitals dominated by salaried doctors, and achieve similar or better health results at lower cost, belies any claim that medicine or science inherently requires U.S. levels of disintegration. This same fact seems inconsistent with the claim that the sociology of the medical profession inherently requires such fragmentation. Further, Institute of Medicine studies of the U.S. system have condemned fragmentation because it leads to more medical errors, meaning that, if anything, sound medicine and science cuts in the opposite direction and is being overwhelmed by other causes.

This much may seem obvious, but it has an important implication. If medical or scientific reasons are not driving current health care fragmentation, it is unlikely that fragmentation is going to be cured by studies that show how it leads to medical errors, by analyses demonstrating medically optimal team methods, or by new information technologies that help hospitals and physicians coordinate better. Those may help at the margins, but to really tackle fragmentation we are going to have to address the underlying structural cause that has been driving U.S. health care to levels of disintegration that are medically harmful.

Can the current fragmentation of U.S. health care be explained by sound economics or business reasons? Again, none of the chapters offers any support for that possibility. To the contrary, the evidence that fragmentation raises costs, worsens outcomes, and deters efficient investments in long-term health suggests that the economics are to the contrary. And the fact that hospital organization deviates from the sort of business organization used to address team production for other businesses suggests the absence of any sound business rationale for fragmentation either.

Again, this may not be particularly surprising, but it has the important implication that we cannot expect economic or business studies on optimal payment schemes or organizational methods to solve the fragmentation problem. For example, while payment for performance is a popular business strategy for dealing with some of the problems caused by fragmentation, it amounts to trying to cure the fact that core incentives are not producing appropriate conduct by making (or withholding) payments to reward (or punish) some types of conduct. This strategy is unlikely to help much for two reasons. First, it presupposes, contrary to fact, that we do not have a team production problem where contributions are difficult to assess without observation. It basically tries to use a market mechanism to deal with the problem—paying for particular conduct—even though the problem is precisely that market mechanisms are less efficient than ownership monitoring and control. Thus, it is not surprising that, as Professor Hyman notes, pay for performance systems have largely focused on easy to define categories of care that clearly should or should not be provided. This provides little help for the more typical problem of performances whose health contributions are hard to assess or vary a lot from case to case or with what other team members are doing. Second, without an owner with a residual profit claim, no one has incentives to adopt payment methods that encourage only optimal performances even if they can be identified. Participants instead have incentives to adopt payment methods that maximize the profits for their fragmented part of the system, which may encourage undesirable performance and fail to encourage a lot of desirable performance.

The dominant cause of fragmentation instead appears to be the law, which dictates many of the fragmented features described above and thus precludes alternative organizational structures. The law is the culprit even though the payment system is also an important cause of health care fragmentation, as is correctly observed in the chapters by Professors Hyman, Enthoven, Greaney, Cebul, Rebitzer, Taylor, Votruba, Casalino and Jost. The reason is that, as many of these authors recognize, the law dictates that payment system.

Medicare law does so most directly by specifying separate payments for hospitalization, physician services, drugs, and outpatient services that must go directly to each provider. Medicare law thus bars any firm from charging Medicare for everything necessary to treat some illness or to achieve some health outcome. Medicare does not even provide any payments for coordination or case management at all. Indeed, as noted above, the payment system affirmatively discourages effective coordination because any coordination that lowers the need for services also lowers the payments to providers. Medicare reinforces physician control by requiring physicians to certify the need for any services, and by forbidding other firms from making payments to physicians that are designed to cause physicians to alter the care they give or referrals they make. And Medicare prohibits federal officials from supervising the practice of medicine or selecting some providers over others. This disables the federal officials from themselves

filling the coordination void by managing the providers or by using provider selection as a carrot or stick. None of these features of Medicare are inevitable—the Medicare laws could be written differently.

Other laws effectively dictate the same sort of regime for cases covered by private insurance. State laws generally make it illegal for physicians to split their fees with anyone other than physicians with which a physician is in a partnership. More important, alternative payment systems, such as paying a hospital (or other firm) to produce some health outcome or set of treatments, would make sense only if it has some control over the physicians and other contributors to that outcome and treatments. And other laws preclude such control, as detailed in the chapters by Professors Blumstein, Greaney, Hyman, Madison, Cebul, Rebitzer, Taylor, and Votruba. The corporate practice of medicine doctrine provides that firms—whether hospitals or HMOs—cannot direct how physicians practice medicine because the firms do not have medical licenses, only the physicians do. Although some states allow hospitals to hire physicians as employees, that change in formal status does not help much if the employer cannot tell the employee what to do. Even if the law did not prohibit such interference, tort law generally penalizes firm decisions to interfere with the medical judgments of individual physicians, making it unprofitable to try, as Professor Blumstein observes. Further, hospital bylaws usually require leaving the medical staff in charge of medical decisions, and those bylaws are in turn required by hospital accreditation standards and often by licensing laws. By dictating autonomy for the various providers involved in jointly producing health outcomes, these rules largely dictate separate payments to each autonomous provider.

Private insurer efforts to directly manage care have likewise been curbed by the ban on corporate practices of medicine and the threat of tort liability. In addition, states have adopted laws requiring insurers to pay for any care (within covered categories) that a physician deemed medically necessary, banning insurers from selectively contracting with particular providers, and restricting the financial incentives that insurers can offer providers.⁶

Although these laws may have been partly motivated by the interest group power of physicians, they also initially had a valid public purpose. The general idea, as Professor Madison details, was to preserve physician autonomy to serve the medical needs of their patients and to avoid conflicts of interest that might make physicians disloyal to their patients. But this purpose presupposes a world where treatments and outcomes are largely determined by the individual physician. Today, medical quality is less a function of individual professional action than of complex team production to achieve health results. A legal system that

6. Einer Elhauge, *Can Health Law Become a Coherent Field of Law?*, 41 WAKE FOREST L. REV. 365, 373 (2006); Einer Elhauge, *The Limited Regulatory Potential of Medical Technology Assessment*, 82 VA. L. REV. 1525, 1546–64 (1996).

mandates separate payments and autonomy for all team members thus, in the current world, means that each member has incentives to maximize its profits from providing its uncoordinated portion of the treatment, rather than to act in the health interests of the patient by coordinating the care of the team. A legal system that historically preserved autonomous decision making in order to improve medical outcomes and avoid a conflict with patient interests thus, today, perversely worsens medical outcomes and creates a conflict with the patient interest in quality coordinated care.

The above leads me to a different conclusion than Professor Madison. In her insightful chapter, she argues that, given their rationale, the various laws preserving professional autonomy are most necessary when medical quality is hard to ascertain, because when quality is easy to ascertain, it will be easy to spot and deter deviations from good health care that result from employer control or conflicts of interest. This argument has much intuitive appeal, and yet my conclusion is the opposite. When it is easy to assess the quality of care, then theory of the firm considerations that I outlined above indicate it is likely to be efficient to use a market mechanism rather than an organizational one, so that a decentralized system where each provider acts separately and is paid separately causes little problem. It is when it is difficult to assess the value of each provider's care that a firm structure is more necessary and most hampered by laws that prevent firms from organizing the care and getting the residual profits from it.

To me, then, the absence of good quality measures provides no reason to favor preserving physician autonomy because today uncoordinated autonomous providers worsen medical quality. Moreover, paying a firm for a set of treatments and making that firm responsible for it would make it *easier* to measure quality because then one can just measure the outcomes, without getting into complex issues about the extent to which each participant contributed to those outcomes.

Other possible legal causes strike me as more doubtful explanations for the current state of health care fragmentation. Professor Enthoven's chapter, for example, emphasizes a lack of antitrust enforcement against activities that anti-competitively foreclosed alternatives to traditional medicine. As an antitrust scholar, I am pleased to acknowledge its vital importance, and Professor Enthoven certainly makes a compelling case that antitrust nonenforcement played an important historical role in the development of our current fragmented system. But as Professor Greaney's chapter notes, we have now had decades of serious antitrust enforcement in health care. "There is an expiry date on blaming your parents," J.K. Rowling recently said, and I think we may have similarly reached the expiry date on blaming antitrust nonenforcement for the state of our health care system. We have had antitrust enforcement in health care since the 1943 *American Medical Association* decision and certainly since the 1980s explosion of health care antitrust litigation, and the sad fact is that it has not done much to reduce fragmentation.

This suggests to me that antitrust nonenforcement is no longer a serious cause of our current state of fragmentation, which in turn suggests that the underlying problem is that the above-described laws prevent free competition from driving health care markets towards less fragmented solutions by making such solutions illegal or ineffective given legal limits. If the integrated systems that one could offer under the current set of laws were really much more attractive than the alternatives, then one would think consumers and employers would switch to them in droves. But they haven't. HMOs have lost, rather than gained, market share, and insurers have reduced their use of managed care techniques.⁷ Nor have efforts to integrate hospitals with physicians lowered costs. To the contrary, as Professor Blumstein points out, hospitals with physician-hospital organizations have higher prices, higher procedure rates, and higher expenditures. Further, they have not achieved a high level of clinical integration that could improve quality. He posits they have been motivated more by market power rather than improving efficiency or medical quality. Not surprisingly, the share of hospitals with such hospital-physician alliances has declined since 1996.

The problem, I think, is in part that the laws described above have prevented HMOs, insurers, or hospital-physician groups from ever exerting the sort of full control that would be most effective. The other problem is that the profit interest of each does not induce them to use their control optimally. HMOs and insurers, because they are paid a flat fee for any care they provide, have incentives to under-care that make their decisions suspect and unpopular and lead to real health problems. And as noted above, benefit denials may encourage greater disenrollment by sick individuals and thus exacerbate this under-care incentive. Physician-hospital organizations have incentives to over-care that lead to the reverse problems. To really solve the fragmentation problem we are going to have to combine an ownership structure that gives a residual claimant real control with a payment system that makes the incentives created by that residual claim efficient and desirable, a topic to which I shall return below.

Although the above laws seem to be the proximate cause of current fragmentation levels, one might wonder what causes those laws. This I take to be the deeper challenge posed by the two chapters that conclude this book. The chapter by Mr. Johnson and Professor Kane argues that the health fragmentation we get reflects core U.S. values such as individualism and faith in markets and competition. Professor Marmor's chapter argues that our health care system is driven by larger political forces, and that fragmentation has played a modest role in those political debates. If true, these positions indicate that any quest to defragment the health care system may be futile or relatively unimportant. My view is to the contrary, but if one wants to fully understand the skeptical view, one could hardly do better than reading their illuminating chapters.

7. Elhauge, *Can Health Law Become a Coherent Field of Law?*, *supra* note 6, at 373.

To me, the problem with saying that current health care fragmentation reflects U.S. values or politics is that this position doesn't explain why those same values and politics do not produce similar levels of fragmentation for other markets like education, air travel, hotels. We don't view individualism or market competition as inconsistent with the fact that we usually buy our products and services from integrated corporations that perform team production functions. The faith in market competition is, after all, a faith in competition among integrated corporations. It also seems to me that the above evidence and theory suggests that the role of fragmentation is large, not modest, and indeed that the fundamental legal framework of fragmented, autonomous, separately-paid providers has undermined many other reform efforts. Even if some of our values and political pressures favor fragmentation, our values and political interests also favor better and more efficient care, so that I think defragmentation reforms can overcome resistance based on values or political interests, though such resistance will no doubt be formidable.

But, assuming such defragmentation reforms are politically possible, what should they be?

Defragmenting Reforms

The most promising reforms, it seems to me, involve ending the legal obstacles to integrated care. Thus, I agree with Professors Madison, Cebul, Rebitzer, Taylor, and Votruba that the corporate practice of medicine doctrine should be eliminated, and that hospital bylaws and other standards that prevent hospitals from controlling physician behavior should be lifted. In addition, Medicare and state laws should be changed to allow payments to firms that would orchestrate all the providers necessary to provide some health outcome, and those firms should be enabled to select which providers they use and to monitor and control their decisions without such control being itself grounds for tort liability.

This doesn't necessarily mean that one should simply repeal laws that prohibit payments for referrals or to alter care decisions. When patients *are* relying on autonomous physician choices, then such side payments undermine that reliance and create a conflict of interest for the physicians whom the patients expect to make the choice. Banning such side payments is no different than the sort of legal bans we have for similar bribes of actors across our legal system. What we need is an exception, much as we have everywhere else in our legal system, for when buyers have contracted with firms that the buyers know control the employees involved in providing some product or service for the buyers.

I am less enthusiastic about reforms that would tend to force more integration. Here, I agree with Professor Blumstein that the law should be neutral about the appropriate organizational form, thus requiring more integrated firms to win over patients by providing cheaper or better coordinated care. Such neutrality, it seems to me, is wise given that we know much more about the direction we need to go than about what level of integration is optimal, and that we don't

know precisely what *type* of integration will prove most successful. Indeed, the level and types of integration that are most effective are likely to change over time with changes in technology, costs, and consumer preferences, just as they do in other industries, so it is important to maintain a legal framework that allows such shifts over time.

For similar reasons, I would not favor reforms that try to require some specific type of integration. For example, laws that require Medicare or other insurers to pay physicians to coordinate care seem unwise. They presuppose we know what sort of coordination is optimal and impose it as a centralized choice. A better strategy would be to simply make sure that the total payments to a collection of autonomous providers providing some joint treatment are no higher than the same payment to an integrated firm doing so, and then leave competition between autonomous and integrated providers to determine which forms of coordination are optimal. Nor do payments for coordination seem likely to do much to reduce fragmentation anyway. As Professor Hyman points out, payments for coordination do not really reduce our fragmented system; they just add another fee-for-service payment on top of it. I would add that it is also unclear why otherwise autonomous physicians would listen to a coordinator who lacks the power to control or incentivize physician choices.

Likewise, I don't think legal reforms should try to curb the development of specialty hospitals. Although specialty hospitals disintegrate some procedures from other hospital procedures, Professor Hyman correctly observes that this may well be more efficient. Further, there is probably more integration amongst physicians acting within a specialty hospital than for those acting within a regular hospital, so it isn't even clear which way specialty hospitals cut in terms of overall integration. Professor Pasquale's probing chapter analyzes the specialty hospital issue in depth, arguing for pilot programs that would provide the data to justify various reforms. He argues that if this data showed that specialty hospitals cherry pick the healthiest patients and most lucrative diagnosis categories, we should lower their reimbursements. Although such cherry picking is a real problem, it seems to me that specialty hospitals have no more incentive to cherry pick than other hospitals, and that the better solution for this problem would be to lower reimbursements for these healthier patients and lucrative categories regardless of what sort of hospital provides the treatment. Professor Pasquale also argues that if the data showed that specialty hospitals erode cross-subsidization of emergent or indigent care, then we should tax them and directly subsidize that care. However, it seems to me that no matter what that data showed, directly subsidizing emergent or indigent care would be more desirable than relying on cross-subsidizations that make such care less reliable and create possible inefficiencies in the organization and costs of other care. Nor is it clear why taxing specialty hospitals in particular would be the best source of funds for such a subsidy.

My view on whether it would be advisable, as Professors Blumstein, Cebul, Rebitzer, Taylor, and Votruba suggest, to replace vicarious tort liability doctrine with enterprise liability for hospitals turns on whether other legal changes are made. Under the current regime, where hospitals have little control over physicians whether they are employees or not, making hospitals vicariously liable for torts by physicians only if they are employees makes little sense. Thus, if no other legal changes were made, it would be better to make hospital tort liability for physicians the same whether or not they are employees, which could be accomplished either by eliminating vicarious liability (leaving hospitals liable for neither) or adopting enterprise liability (making hospitals liable for both). But in other markets, where firms are able to control their employees, the traditional vicarious liability doctrine does make sense because it makes liability follow control, and without control it is hard to see what benefit would come from liability. Thus, if other legal changes were adopted to enable integrated firms to exert real control over physician employees, and if disintegrated hospitals really exerted no control over physicians operating on hospital premises, then I doubt it would make sense to adopt enterprise liability. Indeed, such a change would seem to tilt the field in favor of excessive integration because it would provide a powerful liability reason to exert control even where otherwise it would not be merited.

However, I would make some exceptions to the general policy of not forcing forms of integration that cannot succeed on the market. First, assuming we maintain a market system where insurer incentives to provide certain forms of care depend on the extent to which individuals switch insurers, then I think optimal health care will require centralized risk adjustments to the payments those insurers receive.⁸ Otherwise, insurers would have incentives to provide care in a way that induces low-risk individuals to enroll (say by emphasizing sports medicine) and high-risk individuals to disenroll (say by giving them poor care). However, such risk-adjustments will necessarily require some centralized group-level decisions about how resources should be allocated among various health care needs.

Second, again assuming a regime where individuals can switch insurers, we are necessarily going to have fragmentation over time, which will lead to underinvestment in preventive care with long-term health benefits, as Professors Cebul, Rebitzer, Taylor, and Votruba show. One reform they suggest—reducing search friction costs by having a default insurance policy—would actually worsen this problem by making switching easier and might also reduce competition and innovation in offering varying types of insurance. But trying to make switching insurers more difficult in order to make insurers more long-term oriented also

8. Elhauge, *Allocating Health Care Morally*, 82 CALIF. L. REV. 1449, 1533–34 (1994); Elhauge, *Can Health Law Become a Coherent Field of Law?*, *supra* note 6, at 387.

makes insurers less accountable, which hardly seems preferable. One could mandate the provision of preventive care, but they are right that this produces enforcement problems given the inevitable incentive to shirk unfunded mandates. A better solution would be providing centralized funding for care with long-term health benefits, with the funding amount reflecting the expected gain in health outcomes produced.

Third, I agree with Professors Cebul, Rebitzer, Taylor and Votruba that we should mandate or subsidize the creation of a common system of electronic medical records. The reason is that, although integrated providers are certainly more likely to use electronic medical records than nonintegrated plans, Professors Hall and Schulman's analysis indicates that an integrated provider still has incentives to make its electronic records incompatible with other integrated producers because doing so makes it harder for patients to switch providers. Left to its own devices, a free market will thus not produce the optimal common system of electronic medical records, and government regulations to require or induce a common system will help make the market more competitive. Although Professors Hall and Schulman are certainly right to advocate legal changes allowing patients to authorize use of their medical records for a fee, and Professors Cebul, Rebitzer, Taylor, and Votruba are right that insurers and patients can try to assemble some of the data, I doubt that either alternative will be sufficient given providers' affirmative incentives to create incompatible records.

Leaving aside such exceptions, I would lift legal obstacles to integration, but not adopt legal changes that would mandate particular forms of integration. But lifting these obstacles only fixes one half of the problem—allowing the creation of residual claimants who can select, monitor, and control the others involved in health care team production. The other half of the problem is to pay the residual claimants in a way that gives them optimal incentives to produce what we want, which is beneficial health outcomes.

In health care, reforms to encourage integration have normally been coupled with fixed payments for all treatments provided either for an episode of care or for an insured individual in a year. The problem with this approach is that to the extent that integrated providers or insurers have discretion over what treatments to provide, then this system gives them incentives to provide suboptimal care, denying it even when the benefits exceed the costs. We could try to take away that discretion, by defining precisely what care must be provided, which tended to be the legal reaction whenever HMOs denied care. But then the real decisions are being made by centralized regulators, and we lose any advantage from having integrated firms tailor care to specific cases and innovate with different methods of team production. Alternatively, we could try to couple more integrated providers with fee-for-service payments. But then the providers would have an incentive to over-care and little incentive to coordinate care effectively, because a lack of coordination just increases the services for which they can bill.

We can do better. One strategy would be to stop paying per treatments or for promises to cover “necessary” treatments, but instead to define the health outcomes we value and pay for those outcomes. The most plausible such strategy, it seems to me, is to pay providers based on the quality-adjusted life-years their treatments save. Assuming that this was the right measure of the health outcomes we value and that we could measure it, this would give integrated firms the ideal incentives to provide and organize care in a way that provides the greatest health benefit per dollar spent. With those assumptions, the system could even solve the problem of encouraging plans to provide preventive care that has long-term benefits, because that care could be paid based on the expected quality-adjusted life-years it would provide.

Unfortunately, both those assumptions are rather doubtful. As I have pointed out in other work, there is considerable, and quite reasonable, disagreement about whether the health outcome to maximize should be quality-adjusted life-years, or instead lives-saved, life-years saved, the well-being of the worst off, or the odds of reaching a normal life span.⁹ Further, there is reasonable disagreement about the quality of life under various conditions, and quality-adjusted life-year measures aggregate quite different views on that crucial issue, with the results turning on just what method is used to aggregate those varying views.¹⁰ Nor does it seem that feasible to reliably measure how many quality-adjusted life-years different providers or plans saved because it is hard not only to measure quality, but also to measure what quality and life expectancy would have been in the but-for world without the treatment.

A second strategy would be to pay plans based on the number of enrollees they attract. To avoid incentives to under-care or over-care, I would separate the payments that plans receive for each enrollment from the payments that plans receive for providing care to their enrollees.¹¹ The former the plans would keep as profits, but the latter would constitute a fixed budget that the plans would have to spend on care for their enrollees. This would eliminate incentives to over-care (because increased care would not expand the budget) or under-care (because profits could not be retained from unspent portions of this budget). I would also risk-adjust the care payments that plans receive so they do not have incentives to selectively enroll low-risk individuals.

Under this second strategy, plans would have incentives to coordinate and allocate care in the manner that was most attractive to enrollees. This would give plans incentives to squeeze the most health benefit they can out of their budgets. Different plans would also be able to offer different health-maximization goals,

9. Elhaugue, *Allocating Health Care Morally*, *supra* note 8, at 1493, 1496–1510.

10. *Id.* at 1509, 1524–25.

11. *Id.* at 1453; Elhaugue, *Can Health Law Become a Coherent Field of Law?*, *supra* note 6, at 388–39.

with individuals permitted to choose among plans based on the health-maximization goals they favor.¹² This would respect reasonable disagreements about how best to measure health outcomes by allowing a diversity of choices on that issue.¹³ Plans would instead compete both in being efficient with their budgets and in offering the health-maximization goals that were most attractive to consumers.

I agree with Professors Enthoven, Helland, and Klick that it would be better to sever the link between health insurance and employment. But the above two strategies could also be pursued within the context of our existing system, by any employer or private or public insurer, if the law were changed to allow integrated firm providers and payments that were not for all medically necessary care. Better still in my view would be to have the government set an annual health care budget funded by a tax not linked to employment, out of which it would make payments to whichever provider or plan individuals chose, with the payments made pursuant to one of the above two strategies.¹⁴ Unlike Professors Enthoven, Helland, and Klick, I would not require that each plan offer the same benefits, because that would eliminate the virtue of competition between plans in offering the most efficient set of benefits or the most desired way of trading those benefits off.

In short, for defragmenting health care to really work, we are going to have to couple (1) reforms lifting laws that bar integrated firms from monitoring and controlling a team of medical professionals with (2) payments for the output produced by those integrated firms that give their owners incentives to optimize the coordination of medical professionals. Payments per treatment or for promises to treat are not really payments for output, and respectively incentivize over-care or under-care. We could pay per medical improvement provided if it is measurable and we have a sufficient consensus on how to define it. Or we could define the output as attracted enrollees, and pay per enrollee attracted. Either payment approach would require repealing or preempting laws that require insurers to pay for any “medically necessary” care within a category they cover, and allowing insurers to instead pay per health improvement or be paid per enrollee they can attract with their method for allocating care. But if the above legal restraints were lifted, then this sort of approach could be used by employers or insurers under our current system, as well as by the government in a more thorough reform.

12. Elhauge, *Allocating Health Care Morally*, *supra* note 8, at 1453–56; Elhauge, *The Limited Regulatory Potential of Medical Technology Assessment*, *supra* note 6, at 1620–22; Elhauge, *Can Health Law Become a Coherent Field of Law?*, *supra* note 6, at 385–390.

13. Elhauge, *Allocating Health Care Morally*, *supra* note 8, at 1451, 1456, 1507, 1510, 1524–26.

14. *Id.* at 1453.