OBAMACARE AND THE
THEORY OF THE FIRM

Einer Elhauge

Discussion Paper No. 751

07/2013

Harvard Law School
Cambridge, MA  02138

This paper can be downloaded without charge from:

The Harvard John M. Olin Discussion Paper Series:
http://www.law.harvard.edu/programs/olin_center/

The Social Science Research Network Electronic Paper Collection:
http://ssrn.com/
OBAMACARE AND THE THEORY OF THE FIRM

Einer Elhauge\textsuperscript{1}
Petrie Professor of Law, Harvard Law School.

July 16, 2013

forthcoming in Malani and Schill, eds., \textsc{The Future of Health Care Reform} (U. Chicago Press 2014)

\textbf{Abstract}

Health care fragmentation today raises costs and worsens health outcomes. The theory of the firm indicates that cost and quality problems could be addressed by permitting greater vertical integration among complementary health care providers. The puzzle is why such integration does not occur. The answer is that a host of regulatory and payment laws create artificial obstacles to such integration. Various provisions in Obamacare could and should be used to lift these obstacles and allow health care integration that could potentially save tens of thousands of lives and hundreds of billions of dollars.

Keywords: Obamacare, Theory of the Firm, fragmentation, health care, integration.

\textsc{JEL: I10, I11, I12, I18, K10, K22, K23.}

\textsuperscript{1} Email: \texttt{elhauge@law.harvard.edu}. I am grateful for summer research support from Harvard Law School and the Petrie-Flom Center, for research assistance from Jordan Wish, and for comments from Scott Altman, Nicholas Bagley, Amitabh Chandra, Nancy-Ann DeParle, Alain Enthoven, Julia Feldman, Allison Hoffman, Mark Hall, Joe Newhouse, Frank Pasquale, Barak Richman, Chris Robertson, Jonathan Schenker, Alan Stone, and Patrick Taylor.
The fragmented nature of the U.S. healthcare system is quite anomalous. A hilarious video on YouTube makes the point well, asking: what would it be like if air travel worked like healthcare?² In this alternative world, we see an unfortunate consumer trying to book a cross-country flight to Oregon. He discovers he needs to book separately with an East Coast specialist to get him to Chicago and a West Coast specialist to get him to Oregon, then book a separate baggage specialist and fuelist for each leg, all of whom bill separately and require their own paperwork, none of whom publicly post their rates, with the whole uncoordinated mess resulting in an astronomical cost to travel on a day different than when he wants to fly. You cannot watch the video without thinking “thank heavens we do not live in that world.”

But for U.S. health care, we do live in that world. Even the physicians who practice within a hospital are typically independent from each other and from the hospital and its nurses. If you’re lucky, the hospital will have a case manager to try to coordinate all these actors, but the case manager will have a hard time getting the physicians to pay attention because the physicians are paid separately and the hospital depends on the admitting physician for business. Outside of hospitals, the situation is even worse. The average Medicare patient sees 7 doctors a year, 10 if the patient has a chronic condition, and no one is paid to coordinate them.

The evidence indicates, as I show in Part I, that this fragmentation raises costs and worsens health outcomes. Further, as Part II explains, the economic theory of the firm suggests that allowing competing providers to provide greater

---
² http://www.youtube.com/watch?v=5J67xJKpB6c
levels of integration should improve these results. The problem, Part III demonstrates, is that current law stands in the way. Regulatory laws restrict how hospitals and physicians can work together, while payment laws generally require disaggregated payments, other than limited exceptions like HMOs that permit only a specific form of integration with its own downsides. Together, this legal framework today prevents health care markets from reaching the optimal level of health care integration, instead favoring fragmentation of health care provision and payment.³

The good news is that Obamacare might well provide the solution to this problem.⁴ Although public attention has focused on other controversial aspects,⁵ Obamacare also contains a number of provisions that could, Part IV shows, lift current legal obstacles to efficient healthcare integration. All we need is appropriate implementing regulations to accomplish this market deregulation. This approach is probably the least painful way to lower health care costs because it actually increases quality. It should also have bipartisan appeal because it would use provisions of Obamacare to adopt the sort of de-regulatory reforms that generally appeal to Republicans, but should also appeal to Democrats because they will likely be necessary to make Obamacare a success. Best of all, it can be done through executive action, thus sparing us the agony of trying to pass another healthcare statute.

---

³ For a comprehensive set of essays that address causes, effects, and remedies for fragmentation in the U.S. health care system, see generally THE FRAGMENTATION OF U.S. HEALTHCARE (Einer R. Elhauge ed., 2010).
⁴ By Obamacare I mean the statute formally known as the Patient Protection and Affordable Care Act, Pub. L. No. 111-148, 124 Stat. 119 (codified as amended in scattered sections of 26 and 42 U.S.C.). Although the term Obamacare was originally a mocking Republican characterization designed for political effect, even President Obama now embraces it on the grounds that saying that Obama cares is not exactly an insult. I thus use the term because it is certainly shorter and more memorable, and I think it has lost the partisan spin it once had.
⁵ See ELHAUGE, OBAMACARE ON TRIAL (2012).
I. How Fragmentation Raises Costs and Hurts Patients

*Fragmentation Within Hospitals.* Fragmentation at the level of a single illness can occur when there is a failure to coordinate among the various providers with whom a patient interacts during a single hospital visit.⁶ Attending physicians within a hospital are typically independent of each other and of the hospital. Further, hospital administrators have no direct control over physician decisions. Nor do they have much financial leverage because attending physicians typically bill separately. Indeed, the financial incentives tend to run the other way because physicians are usually the primary source of the hospital’s business. While a dedicated case manager (when provided by a hospital) can help prevent some failures of communication, case management does not give the hospital actual control, nor does it change the financial incentives of either the doctors or the hospital.

To illustrate how fragmentation can impair healthcare even within a world leading hospital, consider a recent article’s account of the organization of surgical instruments at Stanford University Hospital.⁷ Surgeons at the hospital, each of whom was an independent contractor who received a fee for each surgery, indicated the instruments they required by submitting preference cards. Technicians, who are hospital employees, were responsible for loading the requested supplies onto a cart to follow the varying physician specifications. Under this system, errors could occur in filling out the cards, loading the supplies, mislabeling bins, or a host of other possibilities. Physicians had no direct contact with these technicians, so tended to blame the nurses when errors occurred even though the nurses had nothing to do with loading the instruments. These failures

---


led to potentially unsafe practices, such as nurses keeping instruments in lockers, doctors taking instruments home with them, and flash sterilizations of instruments rather than the preferred six-hour sterilization process.

Neither this situation, nor this article’s assessment of the problem, is idiosyncratic. They are perfectly in line with reports by the Institute of Medicine, the highly-influential medical branch of the National Academy of Sciences that offers independent evidence-based advice on health policy. The Institute has concluded that similar problems exist throughout the system because of a fragmented system that focuses on “professional prerogatives and separate roles” rather than on “cooperation and teamwork.” As a result, “Patients and families commonly report that caregivers appear not to coordinate their work, or even to know what others are doing. Suboptimization is seen, for example, in operating rooms that must maintain multiple different surgical tray setups for different doctors performing the same procedure. Each doctor gets what he or she wants, but at the cost of introducing enormous complexity and possible error into the system.”

All this would be less worrisome if medical errors within hospitals were not a serious problem, but they are. According to the Institute of Medicine, preventable medical errors in hospitals result annually in 44,000 to 98,000 deaths and cost between $17 and $29 billion. The Institute concludes that: “The decentralized and fragmented nature of the health care delivery system ...
contributes to unsafe conditions for patients, and serves as an impediment to efforts to improve safety.”

In short, medical errors in hospitals annually cause tens of thousands of deaths and billions of dollars in costs, and health care fragmentation causes many of these medical errors. The Institute adds:

A highly fragmented delivery system that largely lacks even rudimentary clinical information capabilities results in poorly designed care processes characterized by unnecessary duplication of services and long waiting times and delays. And there is substantial evidence documenting overuse of many services—services for which the potential risk of harm outweighs the potential benefits....

Patients tell stories of fragmented care in which relevant information is lost, overlooked, or ignored; of wasted resources; of frustrated efforts to obtain timely access to services; and of lost opportunities. When clinicians and their families and those steeped in health management become patients, they, too, find that there appears to be no one who can make the systems function safely and effectively.”

**Fragmentation Across Providers.** Fragmentation in the care provided to a single patient can also occur when there is a failure to coordinate between different providers treating different conditions or even different aspects of the same condition. The typical Medicare beneficiary sees two primary-care and five specialist physicians a year; those with a chronic disease such as coronary artery disease see on average ten physicians annually. Worse, as Professor David Hyman notes, each physician is “focused on the discrete symptoms and/or body parts within their jurisdiction.”

---

11 Id. at 3.
12 IOM, CHASM, supra note 8, at 3, 43.
13 Hoangmai Phan et al., Care Patterns in Medicare and Their Implications for Pay for Performance, 356 NEW ENG. J. MED. 1130, 1134 tbl.1 (2007).
14 David A. Hyman, Health Care Fragmentation: We Get What We Pay for, in THE FRAGMENTATION OF U.S. HEALTH CARE, supra note 3, 21, at 23.
unavailable or distrusted, leading to imaging studies or laboratory tests being unnecessarily repeated.\textsuperscript{15}

Payment structures contribute to this disjointedness. Neither Medicare nor other insurers pay physicians to coordinate care.\textsuperscript{16} To the contrary, because providers are paid separately for the amount of care they provide, coordination that solves medical problems more effectively would reduce the need for provider services and thus reduce their revenue.\textsuperscript{17} The perverse result can be that “providers can actually do better if their patients do worse.”\textsuperscript{18}

These conclusions again comport with the assessment of the renowned Institute of Medicine, which concludes that “physician groups, hospitals, and other health care organizations operate as silos, often providing care without the benefit of complete information about the patient’s condition, medical history, services provided in other settings, or medications prescribed by other clinicians.”\textsuperscript{19} More generally, the Institute states: “Today’s health care system is not well designed to meet the needs of patients with common chronic conditions... For too many... care for even a single condition is fragmented across many clinicians and settings with little coordination or communication, and some needs remain undetected and/or unmet.”\textsuperscript{20}

One striking empirical study directly addressed whether having more physicians treat a patient worsens care. It studied the outcome differences for Medicare patients after a heart attack depending on whether they were in a region that used a relatively low number of 4.8 physicians per patient or a region that used

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{15} Id.
\item \textsuperscript{16} Id. at 26.
\item \textsuperscript{17} Id. at 26-27.
\item \textsuperscript{18} Id. at 27.
\item \textsuperscript{19} IOM, CHASM, supra note 8, at 4.
\item \textsuperscript{20} IOM, CHASM, supra note 8, at 90.
\end{itemize}
\end{footnotesize}
a relatively high number of 9.2 physicians per patient.\textsuperscript{21} It found that regions that used more physicians per patient increased patient costs by $3,331 (with a 99.9% statistical level of confidence), which was 10% of the average expenditure of around $33,000.\textsuperscript{22} It also found that regions that used more physicians per patient increased patient deaths within a year by 2.5 per 100 patients (with a 94% statistical level of confidence), which was 8% of the average rate of 32.\textsuperscript{23} So seeing more physicians not only increased costs by 10%, but (contrary to common intuition) worsens medical outcomes, here increasing the odds of death by 8%.

This sort of fragmentation also helps explain why, for a nation that spends so much money on health care, our overall metrics are so unimpressive. Of course, it is well known that measures of U.S. health are worse than developed nations that spend much less on health care. But because those sorts of statistics are subject to the objection that this difference may reflect our diet or lifestyle, consider a simpler metric: what percentage of us get medically recommended levels of preventive care or, when we have a chronic illness, receive the recommended treatments for it? It turns out that the answers are only 55% on the first question and only 56% on the second.\textsuperscript{24} That is remarkably low, and it seems likely that part of the explanation is that ensuring that recommended care is provided often falls through the cracks in our fragmented system where lines of responsibility are unclear.

U.S. healthcare fragmentation also produces outsized administrative costs. As of 1999, health care administration cost $1059 per person in the United States,

\textsuperscript{22} Id. at W40, W42-43.
\textsuperscript{23} Id. at W39, W42-43.
\textsuperscript{24} Elizabeth A. McGlynn et al., \textit{The Quality of Health Care Delivered to Adults in the United States}, 348 NEW ENG. J. MED. 2635, 2641, 2642 tbl.3 (2003).
which was not only a remarkable 31% of total U.S. health care costs, but also more than triple the $307 per person administrative cost in Canada.25 Part of this reflects the fact that US health insurers are far more fragmented than Canada’s nationalized health insurance system, with insurance overhead costing $259 per person in the United States versus $47 per person in Canada.26 But much of the difference reflects the sort of fragmentation in healthcare provision at issue in this article. For hospitals, administrative costs per person were $315 in the United States versus $103 in Canada. For practitioners, administrative costs per person were $324 in the United States versus $107 in Canada.27 In short, the average administrative costs per U.S. patient, hospital, and doctor are each triple those of their Canadian counterparts.

II. The Theory of the Firm

Although our health care system clearly seems excessively fragmented, that does not mean all integration is good. Well-functioning markets always feature some mixture of integration and disintegration. After all, buying airplane tickets may allow travelers to avoid choosing and coordinating pilots, planes, flight attendants, ticket agents, baggage handlers, and mechanics, but airlines do not also provide our taxicab to the airport or our hotel when we arrive.

Moreover, the optimal level of integration often changes over time with changing technologies or economics. At one time, people bought cars without wipers or bumpers and selected those separately.28 Airlines themselves now often charge separately for food, leading many passengers to buy their food before

26 *Id.* at 771 tbl.1.
27 *Id.* at 771 tbl.1.
boarding from other firms, thus suggesting that air travel is becoming disaggregated from airplane food. Of course, airplane food is so bad that it became a comedic cliche, but other airline services also might become disaggregated. For example, airlines now frequently charge for baggage, and some separate firms are beginning to offer the service of taking your baggage directly from your home to your destination. While the latter service currently seems priced more at luxury levels, one could easily imagine the economics changing so that the transport of humans and their baggage became efficiently disintegrated in the future.

Indeed, even now, some beneficial changes in health care organization may involve disintegration. For example, retail health clinics have separated some routine healthcare from other healthcare. But getting this routine care while shopping could be beneficial, especially if the lower costs, greater convenience, and decreased delay results in patients getting medically beneficial healthcare more regularly and on time.29

The economic “theory of the firm” explains how markets efficiently determine what activities to integrate into firms rather than leave outside them. As Professor Ronald Coase first pointed out, a defining characteristic of business firms is that they use centralized control, rather than internal markets, to allocate and coordinate resources.30 They will find this profitable only when centralized control provides an efficiency advantage over decentralized market transactions. Professors Alchain and Demsetz then showed that the major efficiency advantage firms have is that centralized control can mitigate the incentives to shirk that characterize a market system when it is hard for the market to measure and reward

29 See Elhauge, supra note 6, at 2; Hyman, supra note 14, at 34.
each individual’s contribution to team production that requires joint effort. Firms solve these inefficiencies by having a single owner that can both “(1) 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.” A residual claim to profits, coupled with the ability to monitor and control the inputs, is important in giving the owner both the ability and incentives to coordinate most efficiently — minimizing shirking by individual team members and ensuring that the joint product is maximally profitable.

Team production may not have been as important in healthcare decades ago, but has become vital to modern healthcare. Physicians, hospitals, nurses, drugs, devices, tests, technicians, and other inputs must be combined to produce the joint result of healthy outcomes. Yet it is difficult to determine the contribution of each participant to the joint result without close observation.

In health care, “shirking” generally does not take the form of failing to work – people in health care tend to work remarkably hard. Instead, shirking usually consists of failing to coordinate with other providers who also affect the same patients’ health on strategy, timing, and information in a way that maximizes health benefits and minimize costs. Thus, where providers might be able to “shirk” in this way, greater coordination would be beneficial. However, the “right” level of coordination will vary across different areas of health care, depending on where direct observation and shirking are more or less likely, and will likely change with changing technology.

32 Elhauge, supra note 6, at 6.
Unfortunately, U.S. health care generally refuses to adopt centralized ownership structures to deal with this team production problem. (For now put aside the HMO exception, which is constrained in ways that create other downsides discussed below.) A single hospital stay requires treatment by multiple physicians, each of whom is typically independent of the others and the hospital. The hospital thus cannot direct or monitor the medical decisions of the physicians and, because the hospital does not pay the physicians, cannot leverage payments to influence physicians. In any case, the hospital has insufficient incentive to coordinate because it is not a residual claimant that stands to gain profit by coordinating physicians. The medical staff, which can review the decisions of physicians, similarly lacks the incentive that a residual claimant would have to control physician decisionmaking. Beyond a single hospital stay, the problems multiply: each physician bills for her own services and no one receives payment to coordinate among the providers. The most obvious choices to coordinate care, either the primary-care physician or the insurer, are not residual claimants and have little incentive to serve in such a coordinating function. In any case, both the primary-care physician and the insurer lack the power to direct the decisions of other providers, even if doing so would lower costs and improve care.

True, medical providers sometimes coordinate in heroic ways to ameliorate this problem. But even then the system fails because the payment system rewards each participant for the amount of care they provide. The system does not pay a residual claimant for the value of the care, which would create the normal firm profit incentive to increase value and minimize the costs of providing that value. For example, Duke University Hospital once adopted an integrated program to treat congestive heart failure. The program reduced costs by approximately 40% by improving outcomes and lowering hospital admissions. But while the program was a resounding medical success, it was a business failure. By reducing the
health problems it could bill to treat, Duke actually lost money. It is admirable how often we see medical institutions attempt these sorts of herculean efforts to coordinate in ways that improve medical outcomes, but we are unlikely to see widespread adoption of such efforts if our payment system continues to penalize them financially.

III. How Current Law Mandates Fragmentation

So we have strong evidence that fragmentation worsens medical outcomes and costs, as well as sound economic theory that greater integration could alleviate those problems. Why, then, have we not seen healthcare institutions actually integrate in way that solve these fragmentation problems?

After all, calls to address healthcare fragmentation are not new, and efforts to institute organizational change have been made. They have just not been successful. The Institute of Medicine observes:

What is perhaps most disturbing is the absence of real progress toward restructuring health care systems to address both quality and cost concerns, or toward applying advances in information technology to improve administrative and clinical processes.... Mergers, acquisitions, and affiliations have been commonplace within the health plan, hospital, and physician practice sectors. Yet all this organizational turmoil has resulted in little change in the way health care is delivered.34

Why has organizational consolidation produced so little improvement? Part of the problem is that organizations adopt the permissible forms of integration that are the most profitable, and our payment system rewards fragmentation rather than medical efficiency. As the Institute put it:

---

33 This example is laid out in Regina E. Herzlinger, Why Innovation in Health Care is So Hard, 84 Harv. Bus. Rev. 58, 64 (2006).
34 IOM, CHASM, supra note 8, at 3.
The current payment system often reinforces fragmentation by paying separately according to the setting of care and provider type, and by not giving providers the flexibility needed to customize care for individual patients. Furthermore, the fragmentation of payment by service can make it difficult for care to be coordinated efficiently across multiple settings. There is a misalignment among what the patient needs, the services provided, and how needed services are paid for.\textsuperscript{35}

The Institute thus recommends that “purchasers and health plans,... should eliminate or modify payment practices that fragment the care system.”\textsuperscript{36} But that shifts the question to a new level: why haven’t institutions changed payment practices to encourage more efficient medical organization?

The answer is simple. Current law gets in the way of private efforts to reform both organization and payment structure. This has stymied adoption of the Institute’s recommendations on both fronts.

On organization, the law inhibits the development of firms that control the provision of care and have the profit motive of a residual claimant. The law does so through various legal obstacles to prevent corporations from controlling physicians or charging for medical services.

To begin with, the “corporate practice of medicine” doctrine provides that firms cannot direct how physicians practice medicine because firms cannot hold medical licenses, only the physicians can.\textsuperscript{37} This doctrine is often mistakenly thought to be a dead letter because so many states have created exceptions allowing hospitals to employ physicians. However, the employment exception is neither as widespread nor as relevant as commonly thought. On how widespread it is, a recent fifty state survey reveals that only 25 states have such an exception, and

\textsuperscript{35} Id. at 101, 202.
\textsuperscript{36} Id. at 13.
15 states do not. The other 10 have no explicit law on the corporate practice of medicine, but are likely to follow the dominant law that bans it and prohibits such employment absent a statutory exception. Further, the 15 states that clearly do prohibit the employing of physicians without any hospital exception include many of our most populated states, like California, Texas, New York, Florida, Georgia and Massachusetts, and comprise a little more than 50% of the US population.

More important, the hospital employment exception simply allows the formal employment of physicians. It does not alter the corporate practice of medicine doctrine that prevents firms from directing their physician-employees because such direction is itself deemed the unauthorized practice of medicine. Indeed, of the 25 states to adopt a hospital employment exception, 14 explicitly provide that hospitals cannot even influence the medical judgments of their physician-employees, and the other 11 implicitly probably mean the same. This employment exception thus does not permit the sort of corporate control required by the theory of the firm. It is like permitting airlines to employ pilots as long as they do not tell them where, when, or how to fly.

Tort law provides a further disincentive by often imposing liability on firms that interfere with the medical judgments of physicians. Accréditation standards and sometimes licensing laws mandate that hospitals adopt bylaws that leave the

---

38 See Mary H. Michal et al., Ctr. to Advance Palliative Care, Corporate Practice of Medicine Doctrine: 50 State Survey Summary (2006). Federal law also creates an exception for HMOs, but this does not apply to other forms of integration. See 42 U.S.C. § 300e-10a (1982).
40 Elhauge, supra note 6, at 12.
41 Michal, supra note 38.
42 Further, of the 25 states that have an employment exception, 9 limit it to hospitals, and thus do not permit other forms of integration, 2 limit it to nonprofits, and 1 limits to either hospitals or nonprofits. Id. So only 13 states allow employment by any corporation that refrains from interfering with physician decisions.
43 Elhauge, supra note 6, at 12.
medical staff be in charge of medical decisions.\textsuperscript{44} Medicare also reinforces physician autonomy by requiring physicians to certify the medical need for the services that they render,\textsuperscript{45} and by prohibiting federal officials from supervising the practice of medicine or selecting some providers over others.\textsuperscript{46}

On payment structure, the law requires a separation of payments that effectively prohibit integrated payments to firms that can serve as a residual claimant that would orchestrate all the providers necessary to jointly produce some health outcome. (HMOs enjoy a special exception from these rules, but have other downsides that I take up below.) The law does so by generally requiring separate payments for hospitalization, physician services, drugs, and outpatient services that must go directly to each provider. Medicare explicitly separates payments for hospitals (Part A) from those for physicians (Part B) and those for pharmaceuticals (Part D).\textsuperscript{47} True, within the hospital category, Medicare and other insurers have for decades allowed bundled payments for all hospital services used to treat a given disease related group (DRG). But those DRG payments remain separate from payments to physicians and for pharmaceuticals, which remain focused only on services performed, and often Medicare pays different amounts for the same thing, depending on who performed the service.\textsuperscript{48} Medicare thus bars a firm from charging for everything necessary to treat a specific illness. Medicare further does not reimburse for the coordination of care or case management.\textsuperscript{49} Because Medicare is the biggest source of hospital revenue, typically providing 35-55\% of the money hospitals receive, hospitals cannot afford to organize themselves in a

\begin{footnotesize}
\begin{itemize}
\item\textsuperscript{44} Elhauge,\textit{ supra} note 6, at 12.
\item\textsuperscript{45} 42 U.S.C. § 1395n (2006 & Supp. V 2011); Elhauge,\textit{ supra} note 6, at 11.
\item\textsuperscript{46} 42 U.S.C. § 1395 (2006); Elhauge,\textit{ supra} note 6, at 11.
\item\textsuperscript{47} Elhauge,\textit{ supra} note 6, at 11. These names for the various Medicare programs come from the codification of Medicare in 42 U.S.C., chapter 7, subchapter XVIII.
\item\textsuperscript{48} See Hyman,\textit{ supra} note 14, at 26.
\item\textsuperscript{49} Elhauge,\textit{ supra} note 6, at 11.
\end{itemize}
\end{footnotesize}
way that does not comply with Medicare. And because hospital care is generally an important part of integrated care, other organizations cannot afford to do so either.

Even if they wanted to do so, separate payments are generally required by statutes that prohibit splitting fees to either induce treatment (referral fees) or deter treatment (anti-referral fees). The federal anti-kick statute law makes it a crime to pay fees to induce referrals for federally reimbursable medical services, and the Stark law prohibits physicians from referring any Medicare or Medicaid patients to an entity with whom it has a financial relationship. These federal laws have exceptions for HMOs and employment relationships, but the latter apply only if the physician compensation is solely for the value of their services and does not take into account the physician decision’s effect on referrals. Federal law also imposes civil money penalties on anyone who makes payments to a reduce referrals for federally reimbursable medical services. Further, many states directly criminalize referral fees and/or specify that referral fees are grounds for the suspension or revocation of a physician’s license. Such bans on fee-splitting effectively prevent firms from using incentives or control to affect physician decisions about what medical services to provide.

Thus, although health care has seen many mergers and organizational changes, these laws have constrained vertical mergers, which are consolidations that integrate complementary inputs into team production in a way that produces the kind of efficient integration we see in industries like airlines. Instead, the

50 Hall, supra note 37, at 488.
51 See 42 U.S.C. § 1320a-7b(b); id. § 1395nn(a).
52 See 42 U.S.C. § 1320a-7b(b)(3)(F); 42 C.F.R. § 1001.952(i)&(t); 42 U.S.C. § 1395nn(b)&(e).
53 See 42 U.S.C. § 1320a-7a(b).
54 See, e.g., CAL. BUS. & PROF. CODE §§ 650–652; FLA. STAT. § 395.0185 (2011); id. § 458.331(1)(i).
mergers we have seen in health care have tended to involve horizontal consolidations of competing services, because combining hospitals or physician practices does not violate the fragmented role divisions required by these laws. To be sure, antitrust scrutiny remains available to check horizontal mergers, but the enforcement agencies have generally lost cases challenging hospital mergers, in part because of the intuition that some integration would be helpful. The perverse upshot is that in health care our combination of laws have posed a much greater barrier to vertical integration that could efficiently reduce fragmentation than to horizontal mergers that increase market power in a way that worsens efficiency. This is precisely the opposite of what prevails in other industries, where antitrust is generally the operative constraint and imposes much tighter limits on horizontal mergers than on vertical integration.

Together, these regulatory and payment laws limit organizational and payment innovation to protect a form of individual physician autonomy that once made a great deal of sense, when medical care was largely provided by a single physician to his patient with minimal equipment. But doing so makes little sense in the modern world where many medical treatments require intricate teamwork and expensive equipment.

As noted above, the law creates an exception permitting integration into an HMO, and proponents of HMOs argue (I think convincingly) that these HMOs generally function better than traditional fragmented medicine. But this exception dictates a very specific form of integration, rather than allowing firms to pick whatever level of integration is most efficient to achieve a valuable result. Moreover, while this legally approved form of integration has many benefits, it also has downsides that make it less than fully optimal.

In particular, HMOs are not paid for the value of the care they provide, or for treating a specific illness, but rather receive a fixed annual fee per insured. This means that an HMO is not a residual claimant that receives payment for achieving a particular valued result, which would give it incentives to pay team members to achieve that result with maximum efficiency. Instead, an HMO’s profits are the difference between their flat annual fees and the cost of the care they provide, which provides an incentive to under-care, even if that worsens health outcomes.\(^{56}\) Moreover, the annual form of payment also means that HMOs integrate all medical services to treat enrollees each year, whether or not that is actually the efficient level of integration given varying technology and geography. Further, in part to offset their incentive to under-care, HMOs are subject to laws that restrict their ability to control their physicians. Such legal restrictions mean HMOs lack the power to achieve the full benefits of corporate control required by the theory of the firm. Moreover, any legal restrictions are inevitably imperfect at correcting for incentives to undercare.

To be sure, the best controlled study shows that HMOs offer the same overall health outcomes as traditional fee-for-service medicine at a lower cost.\(^{57}\) But this study does not establish that their incentive to undercare fails to influence HMOs. To the contrary, it shows that (reflecting this incentive) HMOs do provide less beneficial care than their fee-for-service counterparts.\(^{58}\) However, it also shows that HMOs provide less harmful care than fee-for-service medicine (which has an incentive to overcare) and that the two effects cancel each other out in overall health outcomes.\(^{59}\) This combination may well make HMOs overall

\(^{56}\) See Elhauge, supra note 6, at 9.


\(^{58}\) Id. at 283.

\(^{59}\) Id.
superior to traditional fee-for-service medicine, but it also means we are far from the optimum, which would be to eliminate the harmful care but still provide all care whose benefits exceed its costs. These constraints have also limited the market appeal of HMOs in a way that helps explain why, notwithstanding their proponent’s arguments for their superiority, HMOs have not in fact swept health care markets.

In short, while the HMO exception is probably an improvement on fragmented fee-for-service medicine, HMOs combine flawed incentives with imperfect control in a way that is far from optimal and fails to track the incentive and control structure required by the theory of the firm. To think of HMOs as a solution to the fragmentation problem is analogous to “solving” the need for integration in the air travel industry with a law that permits the integration of personnel and equipment into airlines only if the airline sells an annual pass to cover each consumer’s reasonable air travel needs for the year and avoids influencing the aviation judgments of their employees. Perhaps the specific integration allowed by HMOs is attractive in some situations, but there is little reason to think it is always the optimal form of integration.

We should not limit health care markets to the poles of fragmented fee-for-service medicine or the specific forms of integration dictated by limited legal exceptions (like those for HMOs) to the laws that otherwise require fragmentation. Instead, the law should be neutral as to the appropriate level of integration, without restricting forms of integration that may be efficient. This neutral approach would allow market forces to determine optimal levels of integration (much as the market does for air travel), focusing instead on fashioning payment and liability systems to give competing firms incentives to choose whatever method optimizes team production by medical professionals. Only in this way can the law encourage
those in the market to innovate in a way that develops efficient systems that balance high-quality delivery with low-cost provision.

IV. How Obamacare Can Help

Can Obamacare help address the fragmentation problem? The answer, perhaps surprising to those who have focused on controversial issues like the insurance mandate, is yes. Obamacare contains a number of other provisions that create important regulatory authority to address fragmentation in health care.

For policy insiders, the most well-known of these are the provisions that allow for the creation of Accountable Care Organizations (ACOs), which can coordinate care and, if they meet quality performance standards, receive a share of savings that they can in turn distribute among providers. These provisions allow groups of physicians and hospitals with “shared governance” to participate as ACOs. Such groups must “be willing to become accountable for the quality, cost, and overall care” of the patients that join the ACO. Further requirements specify, among other things, that ACOs must join the program for at least three years, must have a minimum size in terms of patients assigned to the ACO, and must meet quality and reporting thresholds. Obamacare then provides for a “shared savings program.” Should the ACO’s average per capita costs (including hospital and physician payments under Medicare Parts A and B) fall below a benchmark set by regulation, the ACO will be eligible to receive payments that equal a share of those savings, which they can distribute among the providers belonging to the ACO.

---

60 42 U.S.C. § 1395jjj(b)(1).
61 Id. § 1395jjj(b)(2)(A).
62 Id. § 1395jjj(b)(2)(B); id. § 1395jjj(b)(2)(D); id. § 1395jjj(b)(3).
63 Id. § 1395jjj(a)(1).
64 Id. § 1395jjj(d)(1)(B)(i).
Eligibility also depends on meeting quality benchmarks and not taking affirmative steps to avoid higher-risk patients.65

Unfortunately, the regulations implementing the ACO provisions so far continue to separate Medicare payments for care to each hospital and provider.66 For reasons discussed above, such separate payments provide an incentive for hospitals and physicians to increase care. This incentive to over-care (and receive the full price for any services provided) can easily override the counter-incentive created by shared savings payments, which give ACOs only a fraction of the savings from cutting this care that they then have to split among the participating hospitals and physicians.

To be sure, we are not limited to these initial implementing regulations. The statutory provisions allow the future adoption of regulations that could change the separate payment model itself in a way that eliminates this obstacle to efficient integration.67 But it seems less likely that the ACO provisions would allow regulations that remove legal obstacles to firm control over physicians. Thus, the ACO provisions are unlikely to provide a complete solution to the fragmentation problem. Still, one has to walk before one can run, and the creation of ACOs seems likely to be an important first step in the evolution toward less fragmentation of health care. The ACOs will not be fully integrated firms like airlines, but will link providers in ways that could more easily morph into such integrated firms in the future.

In any event, although the ACO provisions have received the most attention from policy insiders, other provisions offer the promise of a more complete solution to our fragmentation problem. In particular, consider the provisions on

---

65 Id. § 1395jjj(d)(3)–(4).
67 See 42 U.S.C. § 1395jjj(i).
the Center for Medicare and Medicaid Innovation (CMI) and the Independent Payment Advisory Board (IPAB).

The CMI provides a way to test new health care payment and delivery systems, including those that decrease fragmentation. Introducing the idea, the provisions state:

The purpose of the CMI is to test \textit{innovative payment and service delivery models} to reduce program expenditures . . . while preserving or enhancing the quality of care furnished to individuals . . . . In selecting such models, the Secretary shall give preference to models that also \textit{improve the coordination, quality, and efficiency} of health care services . . . . 68

The statute then sets out both criteria to guide the selection of models to be tested, as well as particular payment and delivery models that might merit examination. Models tested should be those that “address[] a defined population for which there are deficits in care leading to poor clinical outcomes or potentially avoidable expenditures.”69 This language certainly encompasses models that address fragmentation, given the abundant evidence that the lack of coordination reduces quality and increases cost.70

Further, several of the specific models mentioned in the CMI provisions address concerns that lead to fragmentation. One potential model that can be tested is: “\textit{Contracting directly with groups of providers} of services and suppliers to promote innovative care delivery models, such as through risk-based comprehensive payment or salary-based payment.”71 Another model would be: “\textit{Establishing comprehensive payments} to Healthcare Innovation Zones, consisting of \textit{groups of providers} that include a teaching hospital, physicians, and other

---

69 Id. § 1315a(b)(2)(A).
70 See Part I, supra.
clinical entities, that, *through their structure*, operations, and joint activity *deliver a full spectrum of integrated* and comprehensive health care services." These provisions would allow CMI to adopt regulations that override the legal obstacles to integrated payments and control that cause undue fragmentation.

The CMI provisions tend to be overlooked because they seem to provide merely for experimentation, rather than authorize national regulation. But the provisions actually allow CMI to extend any successful experiment on a national basis and thus make it national policy. The statute provides that:

> [T]he Secretary may, through rulemaking, expand (including implementation on a *nationwide* basis) the duration and the scope of a model that is being tested ... if ... the Secretary determines that such expansion is expected to-- (A) reduce spending under applicable title without reducing the quality of care; or (B) improve the quality of care and reduce spending."\(^{73}\)

The IPAB provisions create a new independent agency, the Independent Payment Advisory Board, that is required to produce proposals to lower Medicare spending in years where payments are expected to exceed targets.\(^{74}\) An interesting feature of IPAB is that it can make proposals that become law unless Congress enacts legislation to override the specific proposal.\(^{75}\) In meeting its duty to reduce Medicare costs, IPAB cannot ration care, increase premiums or cost-sharing, or restrict benefits or eligibility.\(^{76}\)

What distinguishes IPAB from CMI is that the IPAB must act should the statutory triggers be met: “The [IPAB] *shall* develop detailed and specific

---

\(^{72}\) *Id.* § 1315a(b)(2)(B)(xviii) (emphasis added).

\(^{73}\) *Id.* § 1315a(c) (emphasis added).


\(^{75}\) 42 U.S.C. § 1395kkk(b)(3). The ACA also contains expedited procedures for Congress to consider proposals by the IPAB. *See id.* § 1395kkk(d).

\(^{76}\) *Id.* § 1395kkk(c)(2)(A)(ii); *see also id.* § 1395kkk(c)(2)(A)(iii) (prohibiting IPAB proposals before 2020 that would lower provider reimbursements).
proposals related to the Medicare program . . . .”\textsuperscript{77} Moreover, IPAB not only can, but must, make proposals that improve health or efficiency through greater integration or coordination if it can. “In developing and submitting each proposal . . . , the [IPAB] \textit{shall}, to the extent feasible . . . include recommendations that . . . improve the health care delivery system and health outcomes, including by promoting integrated care, care coordination, prevention and wellness, and quality and efficiency improvement.”\textsuperscript{78}

Thus, the IPAB provisions provide a strong mechanism to defragment U.S. health care. Whenever Medicare spending is projected to exceed targets, which seems sadly inevitable, the IPAB must make proposals that include efforts to integrate care and improve care coordination if they would improve medical quality and efficiency. Given the evidence noted above, this arguably creates an affirmative \textit{duty} for IPAB to adopt regulations that allow firms to defragment healthcare because that would both lower costs and improve quality.

Specifically, under either the CMI or the IPAB, the federal government could and should promulgate several regulations that lift current legal obstacles to defragmentation. Such regulations should preempt state laws that prevent firms from controlling physician behavior, such as the corporate practice of medicine doctrine and various tort doctrines. Such regulations should also limit the scope of federal and state prohibitions on fee-splitting and thus allow more financial coordination between hospitals and physicians.\textsuperscript{79} Regulations could also change payment systems to freely allow integrated payments to any firm that orchestrates the providers necessary to achieve a valued health outcome. Vigorous antitrust

\textsuperscript{77} \textit{Id.} \textsection 1395kkk(c)(1)(A).
\textsuperscript{78} \textit{Id.} \textsection 1395kkk(c)(2)(B)(ii)(I).
\textsuperscript{79} Federal regulators have already exercised their power to establish waivers of the federal rules banning referral and anti-referral fees to the extent that they conflict with the regulations authorizing ACOs. \textit{See Medicare Program; Final Waivers in Connection With the Shared Savings Program}, 76 Fed. Register. 67992 (Nov. 2, 2011).
enforcement would remain necessary to make sure that the permitted integration is efficient rather than anticompetitive, but those are the same rules of competitive markets that we apply to airlines and other industries. Given such antitrust enforcement, the effect of using Obamacare to deregulate health care fragmentation would be to create a market where competing firms could experiment with various forms of integration different from HMOs and would have incentives driving them towards the efficient level of integration for any set of health care activities.

Fully optimizing health care markets will require giving firms the right incentives by having those regulations change the payment system to pay firms for the value of the health outcomes they achieve, just as we pay airlines for the outcome of getting us to a destination. Instead, we currently pay providers either for treatments (creating incentives to overcare) or for promises to provide all “necessary” treatments (creating incentives to undercare), neither of which turns on the outcomes achieved. However, paying for the value of outcomes is difficult in

---

80 Some have expressed concern that health care integration might lead to market power or tying. See Barak Richman, Concentration in Health Care Markets, AEI (June 2012). These are legitimate concerns, but concerns that apply to integration in all industries. To the extent integration combines horizontal competitors in a way that creates market power whose anticompetitive effects are not offset by efficiencies, it can be blocked under the usual antitrust law on mergers and joint ventures. For example, although integration between a hospital and a single physician group is vertical, if such vertical integration combines multiple physician groups then that aspect is a horizontal merger that violates antitrust law if it increases physician market power without offsetting efficiencies. Indeed, the antitrust agencies have already issued guidelines on ACOs that make clear they will be treated under the same sort of antitrust rule of reason analysis as other productive joint ventures. See FTC/DOJ, Statement of Antitrust Enforcement Policy Regarding Accountable Care Organizations Participating in the Medicare Shared Savings Program, 76 Fed. Reg. 67026 (Oct. 28, 2011). To the extent the concern is that integration might enable firms to engage in anticompetitive tying, the standard antitrust response in the United States is not to block the integration (which would lose any efficiencies associated with it) but to challenge the post-integration tying if it occurs and actually proves anticompetitive. See Elhauge, U.S. ANTITRUST LAW & ECONOMICS 680-81 (2d. ed. 2011). This approach seems sensible given the vigor of anti-tying law. See Elhauge, Tying, Bundled Discounts, and the Death of the Single Monopoly Profit Theory, 123 HARVARD LAW REVIEW 397 (2009).
health care because it requires putting a financial value on health outcomes and determining the extent to which firms improved them. I can readily ascertain whether an airline gets me to Oregon and how much I value that, but it can be hard to tell whether I ended up sick despite the best health care or ended up healthy for reasons unrelated to the care I received. It may also be hard to tell how much to value avoiding health conditions I have not experienced.

To be sure, we are implicitly putting a financial value on health outcomes today by paying a certain amount for treatments that have some expected outcomes, and we could do a lot more to make payments track the extent to which firms actually advance those health outcomes. One could imagine integrated payments for everyone involved in, say, successful hip replacements or treatments of congestive heart failure, with the amount of those payments reduced if there was an infection, readmission, or the hip or heart did not work. More systematically, one might imagine paying each provider based on the quality-adjusted life years their treatments saved. These sorts of approaches actually become more feasible the more integrated firms are because one can make more reliable statistical conclusions about a firm’s contribution to health outcomes when the sample size of those outcomes is larger.

An even bigger problem with pricing treatments by value is that to be efficient prices would have to reflect the value not to the average patient but to the marginal patient (i.e., the patient who now gets the least value from the medical product or service). There is a great deal of medicine whose typical value far exceeds its cost, so if we paid by average value we would send costs skyrocketing. For example, consider the use of penicillin, which often saves lives. A penicillin
prescription today costs around $28, and we value saving a life at $9 million. If we paid by average value, we might pay, say, $1 million per penicillin prescription. But that would make our health care costs explode and at that price suppliers would have incentives to supply even when the value was zero, which here would also worsen the problem of antibiotic overuse creating antibiotic resistant bacteria. We could try to restrain this supply effect by requiring the patients to pay the costs. But such pricing would lose the financial protection of insurance and prevent many beneficial uses of penicillin when value was less than $1 million but far in excess its costs. Further, setting a price at $1 million would result in all usages being somewhere between $1 million and $9 million, creating a new average value that lies somewhere between, perhaps up to $2 million, which would then result in a new higher average, and so on until the prescriptions cost $9 million and penicillin was used only for life saving purposes. Alternatively, we could use co-pays to restrain demand, but that just brings us back to the same question because if we set the co-pay equal to, say, 10% of the $1 million price, we will lose many beneficial uses valued below $100,000. We would need to know the marginal value to set the right copay amount, and even then we would lose much of the access and financial protection that insurance is supposed to supply.

So we would want to set prices by marginal value, but marginal value is even harder to determine because the QALYs used to assess the benefits of health improvements are aggregate, as are the statistical techniques used to measure the contribution of drugs and services to such health improvements. You cannot run a regression to determine the contribution of a treatment to the marginal patient who benefits least. Perhaps in some cases, like penicillin, we could approximate

---

marginal value as equal to cost, and thus set prices at cost. (To reflect the full costs, we should add a tax equal to the externality created by contributing to the development of antibiotic resistant bacteria.) But that will not work well for patented drugs, where we want prices to exceed costs in order to encourage drug innovation and testing. Such a system would also be difficult to apply to provider labor, where costs are the opportunity costs of time. More important, making prices equal costs would have the serious problem that (1) it would eliminate incentives to increase value and reduce costs, which was the main goal of allowing integration in the first place; and (2) it would do nothing to prevent the provision of care whose costs exceeds its value.

Given the difficulties with directly assessing the marginal value of health care, the best alternative may be to create a payment system that values outcomes implicitly via competition for patients without creating firm incentives to undercare or overcare. One alternative approach would be to give each firm both: (1) an amount per patient or enrollee attracted, which they could keep as profits; and (2) a separate risk-adjusted payment that must be spent on care for the group of patients or enrollees, and thus cannot go to firm profits.\textsuperscript{82} Such a system would eliminate incentives to over-care (because increased care would not expand the fixed budget for care) or under-care (because profits could not be retained from unspent portions of this budget). It would instead give firms incentives to efficiently spend its fixed budget for care to maximize health benefits in order to attract the most patients or enrollees in the future, which is what determines their profits. To be sure, such a system might lead firms to spend on other things patients value, like private hospital rooms or more friendly customer service, but

\textsuperscript{82} See Elhauge, \textit{supra} note 6, at 19–20. To the extent this is done on a per patient basis, it would require separating treatments from diagnoses of the need for treatments, or else the system would create incentives to overdiagnose.
such comforts are also part of the merits that patients justifiably value when they deal with airlines or other firms that provide them with services, and a calmer homier atmosphere might have health benefits as well. As with all markets, such choices will be imperfect to the extent consumer choices are imperfect, and one might worry consumers will make worse choices here than when choosing airlines. However, consumers are already making imperfect choices among health providers, only now within a bad incentive system that exacerbates the problem. Under this sort of system, as long as consumer choices bear some positive relationship to the ability of health firms to create value, the firm incentives will run in the right direction. Such a system would thus give integrated firms the ability and much stronger incentives to optimize team production by the medical professionals within their control.

This proposed approach of separating profit payments from care payments has some similarity to the medical loss ratio requirements of Obamacare, which require that insurers spend 80-85% of their premiums on healthcare. But the proposal here differs in various key ways. First, it would extend beyond insurers to integrated providers, thus providing a solution to the integration problem rather than merely an effort to reduce insurer profiteering. Second, it would give a profit payment per enrollee that is not set as a percentage of spending and thus eliminates the incentive to spend more on care to get more. Third, it would separate profits from spending, rather than try to micromanage the allocation of money between administration versus medical care, which may be counterproductive when better administration would lead to more efficient care. Nonetheless, the proposal has enough of a family resemblance to the medical loss ratio rules that it would not require a great leap in regulatory strategy, which might smooth the transition to such a system.

V. Conclusion

The fragmentation of the U.S. health care increases costs and decreases quality. The main reason such defragmentation persists is a combination of regulatory and payment laws that entrench physician autonomy and prevent the development of integrated firms that have the incentives and control necessary to achieve the team coordination needed in modern medicine. In an era where the biggest question facing the country may be the long-term trend in health care costs, the Obamacare provisions that enable the federal government to remove legal barriers to efficient healthcare integration offer a critical and useful tool. Used effectively, regulations under these provisions could improve health care, potentially saving tens of thousands of lives, avoiding hundreds of thousands of injuries, and saving hundreds of billions of dollars in medical costs. Given the persisting objections to the costs of Obamacare, adopting regulations like this that can save huge sums of money while improving quality may indeed be necessary to make Obamacare a success and fend off efforts to undermine it. These regulatory tools also have the clear benefit of allowing progress to be made without requiring another round of politically volatile federal health care lawmakers.

---

84 See, e.g., CONG. BUDGET OFFICE, THE LONG-TERM BUDGET OUTLOOK 7, tbl.1-2 (June 2010, revised August 2010) (projecting federal health care spending to rise from 5.5% of gross domestic product in 2010 to 9.7% in 2035); Louise Radnofsky, Steep Rise in Health Costs Projected, The Wall Street Journal (June 12, 2012) (US healthcare spending projected to rise from 17.9% in 2010 to 19.6% in 2021).