

*Commons, Institutional Diversity, and  
Polycentric Governance in US Health Policy*

MICHAEL D. MCGINNIS

The US health system is deeply fragmented (Elhauge 2010). Each broad area of health policy—medical care, health insurance, and public health—consists of distinct types of organizations interacting within diverse institutional settings (Lammers et al. 2003). Private insurance and social programs provide uneven levels of insurance protection to different socioeconomic groups (Chapin 2015). The number of medical professions continues to expand, and the specialists who treat a single patient may or may not coordinate their treatments (Sultz and Young 2014). Government agencies at the national, state, and local levels regulate health insurance and the practice of medicine, implement public health measures, and deliver medical care for veterans and other patient groups (Field 2007). Ultimately, individual health outcomes vary systematically by age, race, class, gender, and urban/rural location (Wright and Perry 2010).

My argument rests on the audacious claim that this pervasive fragmentation can serve as a solid foundation upon which transformational change can be built. My optimism is grounded in the realization that all the components of medical care, health insurance, and public health that collectively comprise the US health system originated from the endless creativity of researchers, medical professionals, insurers, employers, government officials, patients and their advocates, and community leaders. In a never-ending process, individuals drawn from these groups devise new forms of medical treatment, implement programs to reduce medical errors and otherwise improve the quality of care, explore innovative payment mechanisms, and organize campaigns to promote healthier behavior.

Each program brings together individuals and organizations with access to different skills and resources in order to design, fund, implement, maintain, evaluate, and improve a plan of coordinated action intended to solve a particular problem. Participants collectively manage these joint ventures as a form of *common property*. That is, the resources developed for and used during these programs are made available to a specific group of individuals, each of whom has limited rights to certain uses of those resources, as well as carefully defined responsibilities on their part. Each program is jointly owned, operated, and managed by the individuals or provider organizations contributing to that program, and in some instances by beneficiaries as well.

The ubiquity of common property in the US health system suggests the potential relevance of research on the commons. My approach to health policy is grounded in the work of Elinor Ostrom, corecipient of the 2009 Nobel Memorial Prize in Economic Sciences, and more generally in the mode of institutional analysis known as the Bloomington School (Mitchell 1988; Aligica and Boettke 2009; Cole and McGinnis 2015). In her most influential book, *Governing the Commons*, Ostrom (1990) demonstrated that resource-dependent communities around the world have devised clever and sustainable methods of managing natural resources critical to their own survival. Of course, health care involves a far more complex array of actors and resources than the fisheries or irrigation systems upon which her empirical analysis was primarily based. Ostrom (2010a) recognized this broader perspective in her Nobel speech, where she emphasized that all complex economic systems require multiple layers of institutional oversight if that system is to be governed effectively. Gaps in governance at any level of aggregation can undermine the operation of the system as a whole, and the US health system exhibits many missed opportunities for improvements, especially the need for better coordination within and across all levels.

In this paper, I apply Ostrom's explanation of sustainable resource commons and related tools of institutional analysis to better understand the current health system and to suggest ways to evaluate potential improvements to that system. The first section summarizes Ostrom's research findings and provides a preliminary evaluation of their potential relevance to health policy. The second section integrates historical, conceptual, and strategic perspectives highlighting the critical roles played by institutional diversity, health commons, and regional stewardship. The third section shows why public, private, and non-profit organizations must work together to govern policy sectors, and articulates a vision of a multilayered

or polycentric system of care. A brief concluding section connects this vision to broader concerns about the nature of democracy in our country.

### **Recognizing Health Commons**

A *commons* is any resource to which members of a group share access. The relevant group could be well-defined, as in a restricted-access commons, or the commons could remain open to all comers. Examples include natural resource commons such as fisheries, lakes, forests, or common grazing land, and humanly constructed commons ranging from simple irrigation systems to highly complex technical infrastructures.

Commons pose vexing trade-offs between private interest and the collective good. Individuals may extract resource units from a common resource pool for their own private use, but if too many extract too much in too short a time, the commons may be degraded or destroyed. This “tragedy of the commons” (Hardin 1968) is especially likely if it remains an open access commons. To avoid such a tragedy, someone make take responsibility for ensuring the long-term replenishment of that resource and for maintaining the infrastructure needed to draw upon those resources in a sustainable way.

Hardin concluded there were only two viable policy solutions: a commons must either be managed by a central authority, or divided into separate parcels of private property. The latter option is based on the idea that the owner of valuable property will look after it with care, and the former option presumes that public servants want to do what is right for the community as a whole. In *Governing the Commons* (1990) and many other publications, Ostrom demonstrated the viability of a third alternative, by examining the ways in which resource-dependent communities have worked together to craft, monitor, enforce, and revise rules limiting their own behavior. These rules specify how many and what kinds of resources can be extracted, and by whom, and when, as well as requiring each resource user to contribute to collective efforts to maintain the common pool and its requisite infrastructure.

### ***Principles of Design for Sustainable Resource Commons***

By carefully comparing a large number of different types of natural resource commons from countries throughout the world, Ostrom identified

eight *design principles* that were present, in one form or another, in successful cases of long-enduring community-based management regimes. To be clear, Ostrom did not claim that any of the individuals involved had consciously set out to satisfy these conditions, but rather that each group had ended up crafting a set of rules and procedures that either supported sustainability or left the resource vulnerable to degradation or destruction.

These design principles are briefly described below; for further details, consult Ostrom (1990) and Cox et al. (2010).

1. Clear boundaries define the resources to be protected and differentiate between individuals granted access to those resources and those excluded from participation.
2. Appropriators (resource users) have the capacity to self-organize, and their right to do so is either recognized by higher authorities or guaranteed by default.
3. The rules defining who can use the resource and who is responsible for providing for its maintenance are determined through participatory processes involving many of the same people who will be most directly affected by those rules.
4. There is at least a minimal level of congruence (consistency) between appropriation rules and provision responsibilities (for fairness considerations) as well as fitness to local biophysical conditions (for practicality).
5. Individual behavior and resource conditions are regularly monitored by someone accountable to appropriators (or by the appropriators themselves).
6. A series of graduated sanctions are available for application to rule violators (with stronger sanctions applied for more egregious violations).
7. Participants have access to multiple means of resolving disputes among themselves.
8. Nested enterprises exist or can be established for purposes of appropriation (resource extraction), infrastructure maintenance (provision), rule-making, monitoring, sanctioning, conflict resolution, financing, coordination, and evaluation.

The basic idea is that rules setting conditions on acceptable forms of resource extraction as well as the fulfillment of requisite duties are much more likely to be sustainable when most if not all of the resource users directly participate in the crafting, monitoring, enforcing, and revising of

those rules. In effect, these conditions specify conditions under which the resource users themselves assert collective ownership over those resources and the rules in play.

These eight principles reinforce each other with subtle sophistication. As a whole, the rules limit the damage whenever individuals succumb to the temptation to exploit the common resource for personal benefit. Limits on acceptable forms of resource extraction must be clearly specified, and those limits must be both consistent with the physical reality of the resource itself and must result in outcomes that are deemed fair by most members of that community. Monitoring behavior is of little value unless those who violate rules are likely to be punished, but it rarely makes sense to expel a rule violator for a first offense, or for a few minor offenses. Groups need to fine-tune sanctions in a graduated manner, by imposing increasingly severe sanctions for more significant or repeated violations of the rules. Detection needs to be certain, but the rules must allow for forgiveness of those who made mistakes but wish to return to good standing within the group. Since group members will sometimes differ in their interpretations of the rules as applied to specific circumstances, all must have assurance that differences of opinion will be resolved in ways that reinforce the sense of community within that group. Finally, these principles ensure that mutually reinforcing forms of collective action will operate simultaneously at multiple levels of aggregation. Whenever smaller groups take responsibility for solving particular problems, those teams must not lose sight of the broader context within which they are acting.

It's worth emphasizing that these principles apply NOT to the characteristics of the resource system itself, but rather to the institutional arrangements through which that shared resource is managed. The design principles do not simply exist as such, but must be actively coproduced by participants.

### ***Relevance to Health Policy***

With regard to health policy, sustainability concerns become noticeable when health care costs absorb a significant proportion of the nation's total economy, and threaten to reduce expenditures on other public purposes. This is certainly the case in the United States, both nationally and within many states.

An especially powerful expression of this concern is Donald Berwick's 2009 plenary address to the annual meeting of the Institute for Healthcare Improvement (<http://www.ihi.org>), which by coincidence was delivered

on the same day that Ostrom delivered her Nobel address in Stockholm. Berwick (2009) reflected on the irony that the United States has the most technologically advanced and expensive system of health care in the world, and yet the health outcomes of its citizens are, at best, mediocre. His primary concern was that the ever-increasing proportion of the US economy that is being devoted to health care would have strongly negative effects on overall economic growth and would restrict expenditures on other public services, especially education.

Berwick emphasized that research based on data from the *Dartmouth Atlas* ([www.dartmouthatlas.org](http://www.dartmouthatlas.org)) documents substantial variation in the levels of utilization, quality, and cost of health care across approximately 300 community-centered regions (Gawande 2009; Wennberg 2010; Radley et al. 2012; IOM 2013; Tanenbaum 2013). Berwick suggested that leaders in those communities that experience higher than average quality of care for lower than average cost must be doing something right, and that Ostrom's design principles might help us understand the reasons for their success. He identified a few of these "positive deviants" and encouraged further study of the reasons for their success (IHI 2010). In sum, Berwick encouraged us to think about each community's health system as a kind of commons, and to recognize that regional health commons can be managed in different ways, and with substantially different results.

This research project summarized here began when Berwick and others approached Elinor Ostrom with a deceptively simple question: could these same design principles help explain regional differences in the costs and quality of medical care? Ostrom modestly responded that she didn't know, since it's not a good idea to take findings from one policy context and presume those same answers will work in other settings. But she also expressed her eagerness to investigate the matter further, and offered to host an informal working group on the subject. I was fortunate to be invited to participate.

Ostrom used the term "commons" informally, to encompass both public goods and common-pool resources. Technically speaking, she had limited her conclusions concerning design principles to the management of common-pool resources, in which individuals extract resources from a common pool for their own use. In parts of *Governing the Commons*, Ostrom extended coverage to local public goods, the benefits of which can be simultaneously enjoyed by a wide range of individuals without threat of exhaustion. Our first task was to determine whether or not anything related to medical care, health insurance, or public health fit the definition of a common-pool resource, or a public good, or a commons.

We managed to identify a few potential examples of common-pool resources, including public access to emergency services, limited time for consultations with physicians, fixed budgets for social insurance programs, the availability of hospital beds or testing facilities or healthy organs for transplantation. Overall, this was a disappointing list, since the examples did not add up to a significant portion of the health system as a whole.

We realized that many resources relevant to health are privately owned, including the professional skills of physicians, nurses, and other health care professions. Hospitals, clinics, and other corporate facilities may be owned by private corporations, by religious or secular-based nonprofits, or by public agencies. Public health agencies typically focus on producing or overseeing the production of a wide range of public goods, including infectious disease control measures, suicide hotlines, information portals, and other ways to promote better community health.

We came to appreciate how difficult it was to fit any aspect of the health system into the standard definitions of private goods, public goods, toll goods, or common-pool resources (Ostrom and Ostrom 1977; Weimer and Vining 2010). Since health insurance pools the risk facing a defined group of individuals, it cannot be considered solely a private good. Fee-for-service payments are generally seen as instances of market exchange, but in practice these fees are affected by limits on copayments and other regulations, or have been set through negotiations between insurance companies and care providers. Health promotion campaigns may provide a public good, but in practice successful campaigns involve public regulation, social pressure, media framing, community-based activism, and individual choice. Finally, even though medical care primarily delivers private goods and services to individual patients, the facilities at which instances of care are provided can also be understood as common-pool resources (or as restricted-access commons).

Access to emergency room services seemed to be the most compelling example of a health-related common-pool resource, since there are a limited number of medical personnel who can treat patients at one time, and a limited number of examination areas. However, this analogy works well not because of the nature of the human or physical capital involved, but because of the broader institutional context within which ERs operate in the United States. Since so many Americans lack insurance coverage for primary care visits, a large number of the patients use the ER as a form of primary care (Hoffman 2006). Since hospitals are required to provide at least minimal care for anyone who comes to an ER, it is difficult to restrict coverage to those facing true emergencies. Congestion and long wait times for treat-

ment can be frustrating to all, and overutilization of the resources of ERs to deliver what amounts to primary care adds significantly to the total expense of medical care in this country. This may sound like a potential case of a tragedy of the commons, but put the same emergency care facilities in a different institutional context and that storyline might lose all meaning.

In the US health system, private goods, public goods, toll goods, and common property are complexly interwoven. No matter how precisely one draws distinctions among types of goods and services in different parts of the health system, significant cross-connections and ambiguities will remain.

### *Lessons from a Regional Health Economy*

Despite this conceptual ambiguity at the level of basic definitions, we continued to explore the broader idea of thinking of a regional health system as a kind of commons. My participation in the health commons working group evolved into a close relationship with ReThink Health, a group of health experts and leadership consultants who work directly with groups of reform-minded leaders in several communities. In this way, I began to explore connections between academic research on health systems and practical action at the community level.

As principal investigator of the Managing the Health Commons research project, funded by The Fannie E. Rippel Foundation, I oversaw a series of interviews with health care professionals, administrators, and community leaders in three communities. Two communities (Grand Junction, Colorado, and Cedar Rapids, Iowa) were selected because they had been nationally recognized as exemplars of high-quality health care delivered to the citizens of their communities at an unusually low cost, as determined by researchers in the *Dartmouth Atlas* project (IHI 2010).

We also conducted interviews locally. Bloomington, Indiana, had a long-standing tradition of community-wide cooperation on a wide range of public health issues, regarding recreational facilities, local food, and anti-smoking legislation. However, we soon learned that although community organizations were adept at obtaining funding from local, state, and national philanthropies, virtually all of these programs closed down shortly after the initial funding ran out. Missing was any sustained strategy to institutionalize these initiatives, or to make them sustainable.

Cedar Rapids turned out to be a difficult case for us to analyze, because two hospital systems in that area had just announced plans to construct cancer care facilities, despite an earlier agreement to avoid competi-

tion in that service area. The resulting mutual recriminations undermined their efforts to maintain levels of cooperation that had first emerged after a major flood a few years earlier.

So we focused our attention on Grand Junction, which had a much longer record of cooperation on health-related community matters. This section summarizes the key elements that lay behind the success of their efforts, as I understand the situation. I was fortunate to attend several of the regular monthly meetings of the Mesa County Health Leadership Consortium (MCHLC). Members included top-level executives from the largest private insurer, the leading physicians' association, the county public health office, and both of the major local hospitals, local clinics, hospice and mental health facilities, and the regional health information exchange, as well as other community leaders.

Our findings with respect to the potential relevance of Ostrom's design principles with regard to the health region centered on Grand Junction can be condensed as follows (McGinnis and Brink 2012):

1. *Clear Boundaries and Local Autonomy.* In the US health system, local stakeholders need to take direct action to assert even a minimal level of autonomy. For more than thirty years, the Mesa County Professional Independent Physicians Association (MCPIPA), which includes more than 85 percent of the physicians in this area, has ensured that doctors were empowered to make the best treatment decisions for their patients while improving the productivity of their practices. However, when needed, community leaders reached outside for assistance from a national professional association and state and national officials. For example, when the Federal Trade Commission and the Department of Justice were considering an unfair trade action against MCPIPA in the 1990s, a local physician asked the American Medical Association (AMA) to intervene, which helped convince the FTC to sign a consent decree that enabled MCPIPA to continue to operate as before.
2. *Wide Participation in Collective Choice.* A national professional association, the Institute for Health Improvement, helped establish the Mesa County Health Leadership Consortium (MCHLC) in 2010, in an effort to facilitate regular meetings among community leaders. As noted above, CEOs of key stakeholders meet monthly to discuss issues and opportunities that affect Mesa County. Each member organization is allotted one vote, and most decisions are made by consensus.

3. *Congruence with Local Conditions and Norms of Fairness.* In the 1980s, MCPIPA and the Rocky Mountain Health Plan (known locally as Rocky) built a financial pool from which equal reimbursements were paid to providers for health care services regardless of funding source. Allocations from this pool were implemented in a flexible way that took into account potentially inequitable effects. For example, when the Quality Health Network, a common system of electronic records, was established in the early 2000s, physicians near retirement were exempted from participation, since they would not have had enough time to recoup their investment. Eventually, all active physicians in the region used the same system.
4. *Monitoring and Graduated Sanctions.* As noted above, physicians in MCPIPA participate in a peer evaluation program with support from Rocky. Each physician receives a statement showing how their testing and treatment practices match up against other physicians in their practice area. MCPIPA also runs voluntary productivity improvement programs focused on patients with diabetes, heart disease, asthma, and other chronic illness. On a quarterly basis, MCPIPA sends a check to physicians who participated, and other doctors are informed of the percentage of their peers who are participating as well as the income they forfeited by not participating. Interview subjects mentioned examples of gentle mentoring of new physicians, followed by more substantial sanctions. After new physicians were “taken out to coffee” by old-timers and encouraged to adopt locally accepted forms of behavior, those who resisted these suggestions might later realize that they were no longer receiving many patient referrals.
5. *Nested Enterprises and Dispute Resolution.* In a commons overseen by administrators of large organizations, it is important to delegate responsibility for reaching specific targets to committees or stand-alone entities specializing in that task. MCHC members jointly support the Marillac Clinic (for uninsured patients), Hilltop Community Center (which runs the long-standing B4 Babies & Beyond prenatal program), and other enterprises. Plus, they use informal means to resolve disputes before they become big problems, by maintaining open communication among all parties.

All these programs and practices contribute to making the Grand Junction health care system an object of admiration. However, some have discounted their accomplishment by implying that this level of collabora-

tion could only have occurred in a low population area that is geographically isolated from large urban areas, or that this region faced less difficult problems (Nichols et al. 2009; Bodenheimer and West 2010; Okie 2010; Thorton et al. 2010). For example, this region has an unusually low rate of infant mortality, but for decades a program has been in place to ensure that all babies receive regular prenatal care, no matter what the insurance status of their mother. Since healthier babies tend to require less expensive medical treatments later in life, it is widely acknowledged that this program helps lower the overall costs of medical care in that region. Interestingly, several interviewees chose to emphasize instead that this was simply the right thing to do.

In the meetings I observed, participants demonstrated a high level of political sophistication and social sensitivity in their deliberations. They openly shared concerns about potentially negative consequences of existing or proposed programs, and considered collective responses that might alleviate those concerns. They respected the boundaries set by their respective commercial interests and carefully avoided any actions that might be construed as price-fixing or collusion. They focused on meaningful tasks that could only be accomplished through joint action, and exhibited the good-natured banter of individuals genuinely comfortable with each other.

We concluded that the most critical key to the success of Grand Junction lies not in its geographic isolation or its reimbursement schemes or anything to do with the details of specific programs. Instead, the critical factor is that leaders of the regional health economy routinely communicate with each other, in ways that build and sustain mutual trust and respect.

### **Historical, Conceptual, and Strategic Perspectives on Institutional Diversity**

I came to realize that to fully understand the US health system, we need to look beyond the design principles that dominated our attention in the health commons working group. There is much more to health and medical care than can be captured in the concept of a commons, especially one isolated from its broader institutional environment.

This section expands my line of argument in three directions. First, themes from broader literatures on policy and political economy set the historical context behind the incredibly diverse institutional landscape of health systems. Second, focus moves from the system as a whole to its component parts related to medical treatment, quality improvement, pay-

ment mechanisms, and health promotion. Third, a brief return to Grand Junction considers how similarly effective arrangements for regional leadership might be established in other settings. In brief, the critical requirement is for local leaders to find ways to knit together the full range of existing health-related goods, services, and programs, and use the resulting package to pursue a broader agenda of community governance.

### *Historical Overview of the Institutional Landscape*

The US health system was constructed piecemeal, and its current complexity reflects the accumulated consequences of interrelated social, economic, political, and technological processes. This section briefly reviews the historical development of the organizational types that dominate different parts of this system. (Similar themes are developed in detail by Field 2007; Gordon 2005; Hillstrom 2012; Lammers et al. 2003; Shonick 1995; Starr 1982, 2013.)

Health policy was virtually nonexistent when the United States was established, except for public health measures like quarantines. Local authorities and churches established almshouses where people needing care were gathered, but this was not considered a major public responsibility. Given the rudimentary level of scientific knowledge, medical procedures were of limited efficacy, and what little market transactions that occurred in the delivery of medical care remained essentially unregulated. The Civil War revealed gross inadequacies in health infrastructure, which led state and national governments to build more hospitals and establish agencies such as the US Public Health Service. As appreciation of the germ theory of disease propagation spread, the public became more accepting of laws supporting compulsory vaccination and hospitals began to be seen as a good place to go for medical treatment.

By the Progressive Era, demand for medical services had dramatically increased, as had support for a much wider range of safety regulations. Professional organizations lobbied for licensing of physicians, and local and state health boards were established to oversee the approval process. Labor unions and other activists pressed for public support for sickness insurance to enable a wider class of people to afford the increasing costs of medical care. Similar movements in Germany and elsewhere in Europe led to universal health insurance, but the AMA effectively protected the economic and professional interests of private physicians against public regulation of their industry by railing against the imminent threat of socialized

medicine. For this same reason, when old age pensions, unemployment insurance, and workman's compensation programs arose during the New Deal period, universal health insurance remained off the table. It was not until 1965 that the national Medicare program guaranteed health insurance for senior citizens. As Medicare and Medicaid became important sources of revenue for medical institutions, legislators and regulators used their market power to address other concerns, such as requiring all institutions receiving Medicare payments to provide basic emergency care to all comers. In this way, hospital emergency rooms (or departments) became an essential part of the health care safety net (Hoffman 2006).

As demand for medical care grew, new forms of health insurance plans were developed. Firms in the logging, mining, and railroad industries hired physicians to care for their employees, and labor unions offered members pension and health plans. Blue Cross and other non-profit insurers grew in importance, and were often exempted from state insurance regulations. During World War II, employers used health insurance benefits to attract and retain employees, since these benefits were not subject to the wage controls then in place. Fringe benefits were later ruled exempt from income taxes, which dramatically increased the domination of employer-based insurance. Meanwhile, commercial insurance agencies developed health insurance plans that proved financially lucrative, primarily by limiting coverage to healthy individuals with no costly preexisting conditions.

Throughout this period, most physicians remained independent professionals, who were granted privileges to practice in hospitals. In the 1970s, national agencies began to encourage the development of more integrated arrangements, combining hospitals, practicing physicians, and insurance companies in health maintenance organizations. HMOs served as the template for the Accountable Care Organizations (ACOs) that played a central role in the 2010 Affordable Care Act (McClellan et al. 2010). The ACA significantly decreased the number of uninsured Americans by offering states incentives to broaden access to Medicaid programs, requiring health insurers to offer packages of essential minimal benefits and to cover individuals with preexisting conditions, providing subsidies to individuals to purchase health insurance plans offered through new insurance marketplaces, and threatening new taxes on individuals who remained uninsured and on companies that did not provide health benefits to their employees. Though critics decried Obamacare as a massive government takeover of the health system, in reality it amounted to a series of opportunistic patches over gaps left uncovered by a still-evolving ecology of private insurance and social programs (Starr 2013).

As the costs of medical technology rose rapidly, and public expectations followed apace, non-profit hospitals had to adopt many of the cost-saving practices of for-profit hospitals, making the types of care provided by these originally very different kinds of organizations virtually indistinguishable in practice. Policy advocates and political entrepreneurs responded to the interests of particularly vocal interest groups, resulting in extension of disability benefits to those suffering from end-stage renal disease and support for the development of new drugs to treat HIV/AIDS. Cultural trends lowered social tolerance for drunk driving and smoking in public, and a coalition of state attorneys general successfully sued the tobacco industry and used their payments to fund smoking cessation programs. Interest groups active on abortion and other hot-button health-related issues have contributed mightily to overheated partisan debates and legislative gridlock in recent years.

In sum, markets in medical care and health insurance in the United States have always been deeply intertwined with social and cultural trends and with regulations established by public agencies and private professional associations. Since a high proportion of the population does have some kind of health insurance, movements to establish a comprehensive system always fall short of success (Gordon 2005; Starr 2013). At critical junctures, policy decisions made for reasons not directly related to the health system dramatically shaped the future evolution of that system, with the most consequential example being the rise of employer-funded health insurance plans. This fragmented approach was further solidified by the establishment of Medicaid, since requirements for eligibility vary by state.

### ***Mini-Commons as Building Blocks for Regional Stewardship***

The heat generated by clamorous partisan squabbling over the relative merits of markets and public interest regulation makes it nearly impossible for citizens to appreciate the true extent of institutional diversity in the US health system (Elhauge 2010; Field 2007; Lammers et al. 2003). This section highlights a particular kind of institutional arrangement that recurs, hidden in diverse manifestations, throughout this system.

I use the phrase *health-related mini-commons* to designate any program or project (including procedures and all associated resources) developed and operated jointly by different types of health care professionals and other stakeholders in the US health system. Each joint venture will

have a unique combination of participants active in its conceptualization, design, implementation, funding, evaluation, and revision. Yet, at its core, each and every one is an instance of common property. As noted earlier, very few of the resources relevant to medical care, health insurance, or public health can be adequately described as either private property or pure public goods. Conversely, citizens and professionals in every community have extensive experience with a wide array of health promotion campaigns, different types of medical treatment, improvements in quality of care, and payment mechanisms based on different mixes of private insurance, copayment, and public support.

All forms of medical treatment require resources drawn from existing stocks of physical, financial, human, and social capital. Take the example of an operating room as a “clinical micro-system” (Nelson et al. 2007). Highly trained physicians, nurses, anesthesiologists, and technicians jointly make use of delicate and very expensive medical technology. They engage in mutual monitoring, because every member of a surgical team is encouraged to speak up immediately whenever they observe any potential breach of the sterile field. Also, someone will be assigned the responsibility of keeping count of sponges and other equipment used during the operation to ensure that nothing has been inadvertently left inside the patient to cause later complications. Despite their best efforts, mistakes will occur, and the reduction of medical errors is a high priority of all medical facilities. More generally, efficiency experts and consultants design, implement, and evaluate programs meant to make specific improvements to existing clinical processes (McKethan and Brammer 2010).

I use the term “mini-commons” to highlight the potential relevance of Ostrom’s design principles to these programs. Each mini-commons was established for a specific purpose, and each has strict limits on the resources that the relevant stakeholders have made available for that purpose. Each program has rules to prevent overuse, and these rules were typically determined and implemented by the participating organizations themselves. Patients and care providers sometimes violate those rules, as demonstrated by the ongoing epidemic of prescription drug abuse. Finally, not all of these programs are going to remain in place for long periods of time, but those that do should fit the conditions identified by Ostrom.

A few caveats suggest caution when applying Ostrom’s design principles to this very different policy setting. First, the health system also includes other kinds of property, including the examples of private property and public goods discussed above. Still, it’s hard to deny that col-

lective action lies at the heart of every aspect of health care. Second, the range of stakeholders involved in health-related mini-commons is wider and more diverse than was the case for the resource-dependent communities upon which the commons literature has been focused. Third, although long-term sustainability may require the active participation of the owner-operator-managers of these joint ventures, patients themselves are rarely consulted for advice on program details.

Health-related mini-commons play foundational roles in all parts of the health system, and the design principles can refer to different phenomena at the programmatic and systemic levels. The design principles referring to recognized autonomy and clear boundaries are not at issue in the setting of mini-commons, since each was built by a team working across professional boundaries for the purpose of designing a program to address the needs of some identified group of patients. When first constructed, its resources and the rules guiding their use will, by definition, reflect at least a minimal consensus among the relevant stakeholders concerning the nature of the problem they face, as well as their joint agreement to pursue a particular path toward its resolution. However, if that program is to be sustainable, the interests of all stakeholders must remain aligned, even as circumstances change. Interest alignment is not as easily assured as in the resource-dependent communities that Ostrom studied. In those resource-dependent communities, all shared a strong interest in the long-term viability of the resource; for health-related mini-commons, maintaining alignment of stakeholder interests is a constant struggle and requires concerted attention by program managers.

Individuals who participate in a health mini-commons need to be compensated in some way beyond the intrinsic benefits they experience from easing the pain of others. Similarly, sanctions against poor performance may combine material loss and social pressure. Since participants are drawn from organizations with diverse missions and specializations, disagreements will arise during implementation. Participants need opportunities to air their concerns, and access to procedures that help resolve disputes without damaging the underlying relationship among the parties.

The nesting principle connects conditions at both levels, since health-relevant mini-commons are the basic building blocks out of which the current US health system has been built. Each regional health system contains unique configurations of health service programs that are owned, operated, and managed as common property, along with other forms of capital. Few if any mini-commons will be naturally self-sustaining, and many would

suffer from mission drift without regular supervision and evaluation. Even successful programs may act at cross-purposes, with one program undermining another program's prospects for success. When related programs are not well-integrated, dangerous gaps in coverage and care will remain.

In most communities, no one has taken on the challenge (or assigned the responsibility) of coordinating the design and support of critical health-related mini-commons, identifying gaps in coverage and filling those gaps with new programs, or of reconciling tensions between overlapping programs. In effect, this has been the strategy that leaders of the Grand Junction health system have been implementing for many years.

Strategically critical programmatic mini-commons in Grand Junction have included incentives for the recruitment of primary care providers, the B4 Babies & Beyond program providing pre- and post-natal care for all pregnant mothers and their babies, the community-funded Marillac Clinic for uninsured patients, a financial pool guaranteeing equal reimbursement for patients from all insurance groups, plus increments to reward exceptional performance, and the use of proceeds from a successful legal suit to build and maintain a system for sharing electronic medical records. None of these programs have been easy to sustain, but all major regional stakeholders worked together to find the necessary funds.

The term "regional stewardship" is a more uplifting description of what has happened in Grand Junction than positive deviance. The Merriam-Webster online dictionary defines stewardship as "the conducting, supervising, or managing of something; especially: the careful and responsible management of something entrusted to one's care." It also uses stewardship of natural resources as a clarifying example. When Hardin (1968) advocated privatization or collectivization as ways to avoid suffering a tragedy of the commons, he was presuming that individuals are naturally good stewards of their own private property and that public officials will (or should) fulfill their responsibility to serve as good stewards of publicly owned resources. When Berman and others identified Grand Junction as a positive deviant, based on the *Dartmouth Atlas* analysis, they were implicitly presuming that some degree of stewardship must have been occurring there that was sadly lacking in most other regions.

Regional stewardship did not arise fully formed in Grand Junction (McGinnis and Brink 2012). Habits of community collaboration were slowly built through projects to ensure sufficient irrigation water for agriculture and to restore habitats damaged by mining operations. When health system stakeholders met to discuss shared concerns, they selected a few critical targets for particular attention, constructed programs to address

those targets, allocated resources to those programs, and gathered on a regular basis to evaluate these programs, and recalibrate as needed.

Over time, leaders knitted these programs into a broader regional health system. It's not a perfect system, as evidenced by continuing challenges regarding suicide rates and other aspects of public health. Nor is this the only path toward effective regional stewardship of health-related resources; formal regional councils and integrated-delivery systems have worked well in other regions. Still, too many regions have not taken even preliminary steps toward regional stewardship. Fortunately, ReThink Health and similar groups study and advise health leadership teams in communities throughout the country (Erickson et al. 2017), and important new perspectives on health reform are published every year (Emanuel 2017; Pearl 2017). The example of the Grand Junction leadership group remains important because they have demonstrated that it is possible to achieve transformational change by incremental steps, if those steps are guided by a strategy of resource stewardship focused on securing the long-term viability of critical component programs and on continued efforts to collectively address emerging challenges and explore new opportunities for improvement.

### **Polycentric Governance and Health Systems**

Elinor Ostrom's research on community-based management of natural resource commons was firmly grounded in a realistic appreciation of the challenges involved in collective action and governance. By *governance*, I mean the processes through which the rules, norms, and social expectations that guide the behavior of individuals and corporate entities in a given area of policy are established and reinforced, whether by formal or informal mechanisms. In the United States, governance has always been a task jointly undertaken by public officials from the national, state, and local levels, and by important non-governmental actors from private corporations, professional associations, and voluntary organizations. Professional associations play important roles in setting and enforcing professional standards and norms, and non-profits organize volunteers' efforts to achieve socially desirable ends. Legislators and public agencies depend on different kinds of private actors for information or expertise, and for implementation of new laws or regulations. This interweaving of public and private is definitely the norm for the governance of health care—collaborations among stakeholder organizations constitute a dense

network of programs, each constructed in response to the many subsidies, tax breaks, and regulations devised by policymakers to encourage new drugs and forms of surgery, quality improvements, new payment models, and other innovations.

### *Imagining a Polycentric System of Care*

In systems of *polycentric governance* (Cole and McGinnis 2015), a diverse array of public and private authorities with overlapping domains of responsibility interact in complex and ever-changing ways, and out of these seemingly uncoordinated processes of mutual adjustment emerges a persistent system of social ordering that can support and sustain capacities for individual and group autonomy. This concept was introduced by Vincent Ostrom et al. (1961) as a vision of governance that recognized the potentially positive benefits of governmental fragmentation in US metropolitan areas (McGinnis 1999), and that presaged by several decades recent trends toward more explicit utilization of public-private partnerships for cross-sector governance (McGinnis and Ostrom 2012).

Polycentric systems provide groups seeking to resolve common problems or realize shared aspirations a range of choice among alternative institutional arrangements. The specific choices available in different communities will vary, as will outcomes. But to the extent that groups in that region and elsewhere can learn from each other's experiences, overall conditions should eventually improve.

In papers directed at practitioners, Ostrom (2009, 2010b) advocates a polycentric approach to climate change policy, and these papers could serve as an inspiration for aspiring stewards of health commons. Ostrom encourages climate policy advocates to rethink their preoccupation with global agreements, which by themselves do not guarantee actual changes in behavior. She draws upon the language of economics to demonstrate that climate change generates unintended negative and positive externalities for actors at all levels of aggregation from households to the global level. Since climate change is such a complexly multilayered policy problem, only a program of policies directed at each level can, in the end, be an effective response.

Ostrom (2010b, 551) confidently asserts that "To solve climate change in the long run, the day-to-day activities of individuals, families, firms, communities, and governments at multiple levels must change substantially." The lesson for health reform is clear: don't rely solely on changes

in national policy. Ostrom articulates a vision of polycentric governance that could inspire aspiring stewards of health commons at the level of regional communities.

What we have learned from extensive research is that when individuals are well informed about the problem they face and about who else is involved, and can build settings where trust and reciprocity can emerge, grow, and be sustained over time, costly and positive actions are frequently taken without waiting for an external authority to impose rules, monitor compliance, and assess penalties. . . . Local discussions and meetings generate information about the unrecognized costs of individual, family, and business activities as well as potentially lead to a change in the preferences of individuals involved and about the expected behavior of others. As a result of this communication, some actors adopt a sense of ethical responsibility for their own carbon footprint. . . . Building such a commitment, and trusting that others are also taking responsibility, can be more effectively undertaken in small- to medium-scale units that are linked together through diverse information networks. (Ostrom 2010b, 555–56)

My translation of Ostrom's vision into the context of health policy goes as follows. Individuals living within a polycentric system of care should be able to draw upon multiple options at all stages of the care continuum. When healthy, individuals should have easy access to reliable information about the symptoms of disease, and useful advice about how they might prevent themselves from becoming sick in the first place. When they fall victim to a specific disease, they should be able to choose among multiple entry points into the medical care system, including clinics specializing in mental and behavioral counseling. Primary care options should include regular visits to physicians, nurse practitioners, and clinics conveniently located in schools, at workplaces and shopping malls.

Whenever the need for urgent care arises, emergency assistance should be easily summoned by phone or by automatic devices. Wearable health technology can provide in-house monitoring of elderly individuals or patients suffering from chronic disease conditions, but such individuals should also be regularly visited by friends, family members, and neighbors, and perhaps by volunteers with a modicum of basic medical training. Hospice facilities should be greatly expanded, so fewer people need to die amid the clamor of intensive care units. All communities should provide generous support for web portals, public forums, and leadership meetings,

and a primary concern of health policy should be to facilitate effective collective action among patient groups and care providers.

### *Missed Opportunities for Improved Coordination*

This vision of polycentric care is far removed from present reality, but the seeds of its emergence are already in place. The commons perspective on the US health system helps us appreciate the many forms of collaboration already occurring in this system, and prompts us to identify missing links in the supporting mechanisms needed for us to move beyond these partial and potentially fragile successes. Today's health system is replete with missed opportunities for coordination—between patients and their care providers, among different types of health care professionals, between professional care providers and members of a patient's social support network, between insurers and care providers, among medical professionals, social workers, and public health officials, and among community leaders, administrators of medical institutions, and ordinary citizens.

Space does not allow a complete inventory of missed opportunities, but a few key ideas are worth consideration. First, in a patient-centered medical home, or PCMH, primary care providers and specialists, as well as social workers and patient advocates, are encouraged to operate together as a team. When the care a patient receives is coordinated, potential problems of drug interactions or inconsistent treatments might be avoided, reducing costs and improving the patient experience (Schwenk 2014). Second, coordinated care requires regular sharing of information regarding a patient's medical condition and treatment history, but efforts to build fully integrated health information technology systems routinely flounder on privacy concerns or commercial incentives to build software and equipment tailored for needs of particular organizations, rather than moving to a commonly shared standard (Burton et al. 2004). Third, shared decision-making protocols have been developed to help guide clinicians' discussions with patients, which, by eliciting the patient's underlying preferences among alternative scenarios, often result in less invasive treatments that do not require extended stays in hospitals or specialized clinics. In effect, better-informed patients can become directly engaged in directing their own treatment (Elwyn et al. 2013).

One crucial component missing in today's health system is a sense of collective responsibility. No public official has authority over strategic planning for the health system as a whole, or even for the full scope of

any of the component sectors of medical care, health insurance, or public health. Nor is it widely agreed that such authority is needed, since many critics of the current system offer assurances that market forces, once unleashed, will push us in the right direction. Others insist that equal access to health care should be considered a basic human right. Lost in the heated rhetoric of partisan debates on health policy is any serious effort to agree upon the proper extent of public responsibility for the careful stewardship of local, state, or national resources related to health.

When I began this research project, I naturally presumed that improved discussion and coordination among all the major stakeholders in a local or regional health economy would be a good thing, since that idea resonated so well with the normative values and analytical perspectives I had absorbed during my long association with Elinor Ostrom and other institutional analysts. However, when I reviewed the history of previous efforts to establish formal institutions of health governance at the community or regional level, I was astonished to learn that the same thing has been proposed, in separate programs and in different ways, every ten or twenty years since the 1930s (Mehaldo 2014; Shonick 1995). Different reports used different terminology to describe why regional coordination was needed, and proposals differed in specifics. Ultimately, the record was dominated by false starts and hasty retreats.

In 1932, a national Committee on Costs of Medical Care proposed comprehensive reforms including a system of regional planning boards, but their support of group prepayment plans led the AMA to mobilize in opposition. The intensity of the AMA response convinced FDR to remove any mention of universal health insurance from the package of New Deal programs. The 1946 Hill-Burton Act (Hospital Survey and Construction Act) provided national assistance for the construction of new hospitals, especially in underserved rural areas. This program exhibited the classic symptoms of pork-barrel politics, and resulted in overconstruction of hospital capacity.

In urban areas, programs for neighborhood or community health centers failed to develop a powerful *national* constituency and fell victim to limits inherent in anti-poverty programs. The Comprehensive Health Planning Act (1966) and Health Planning and Resource Development Act (1974) mandated the establishment of regional health systems agencies, which were designed to require representatives from the broader community. However, metropolitan area-wide health facilities councils were strongly opposed by state-level officials, and neither act was fully implemented (Altman 1978; Koff 1988).

Most states passed CON (Certificate of Need) requirements under which state planning agencies could limit the construction of new medical facilities, but this program was unevenly implemented, and ended up becoming a means to protect the interests of the largest hospitals. This CON concept drew intense fire during the Reagan-era boom in deregulation, and it now continues in weaker forms in only a few states. Health Maintenance Organizations were pushed by national authorities beginning during the Nixon administration, but their proliferation led to public backlash because many HMOs restricted patient access to care in order to save money. The Accountable Care Organizations included in the Obama-era ACA were meant to be more community-friendly variants on the basic HMO model (Pasquale 2012; Burns and Pauly 2012), but the long-term future of this institutional form remains very uncertain in the current climate of hyperpartisanship.

This brief survey identifies an impressive litany of negative policy syndromes—aggressive use of negative and misleading rhetorical frames, excessive pork-barrel allocations, bureaucratic subversion, unfunded mandates, extreme partisanship, legislative gridlock, and regulatory capture by entrenched interests. Acting together or separately, these syndromes prevented full implementation of any effort to establish effective coordination among major stakeholders in regional health systems.

Direct efforts to mandate better health governance at the regional level seem doomed to fail. Voluntary coordinating agencies lacked sufficient authority to ensure compliance, and CON and other regulatory efforts were diverted to serve vested interests. Thus, we need something between, or fundamentally different from, fully voluntary or compulsory policy instruments.

### *A Polycentric Strategy for Health Reform*

All of these ideas to improve coordination at different levels of aggregation have been tried before, with varying levels of success. The sheer number of policy syndromes that combined to undermine regional planning boards demonstrates that a more subtle and indirect approach is needed. It seems that any single reform idea, no matter how compelling, is likely to work effectively only when its implementation is supported by complementary changes in related institutions or practices.

To see how an indirect approach to systematic health reform might work in action, consider US environmental policy, which in recent decades

has undergone a fundamental transformation, driven by mutually reinforcing changes in the behavior of public officials, private corporations, professional associations, advocacy groups, and individual consumers.

Look back a few decades and you'll see an economic system in which producers of all kinds routinely polluted the environment, with little or no consequences to themselves. This led to a race-to-the-bottom, in which poor states offered lower levels of environmental restrictions in hopes of attracting more industry to their local economies. Increasing concern on the part of the public (and environmental experts) led to the passage of laws assigning responsibility for pollution to corporate producers. In some states, these movements were effective in encouraging state and local officials to impose stricter environmental regulations, some of which were later implemented at the national level. These regulations established a floor below which environmental conditions were not allowed to fall.

But it wasn't just a question of interactions between private corporations and government regulators. Non-profit groups acted to enhance public knowledge and concern about the production methods of different corporations, and a process of naming and shaming began. Consumers took this information into account in their purchasing decisions. Companies began to compete over the relative greenness of their own corporate practices, and corporations most effective at capturing this market opportunity did so by deeply institutionalizing green concerns within their corporate cultures. Communities now routinely advertise themselves as environmentally friendly places to live.

How might we embark upon a mutually reinforcing path of movement toward a new equilibrium for the health care sector of the US public economy? We have to start from where we are today, a health system built on a multitude of health-related mini-commons that remain fragile as stand-alone programs. Although many hospitals have programs of community outreach, and encourage physicians and other employees to volunteer in various community programs, these remain mostly sideshows, well off the mainline of corporate activity. Regulatory efforts proliferate, but routinely generate unintended consequences because private responses to regulatory requirements focus on opportunities for increasing one's market share, rather than directly achieving the ends sought by the regulators. Also, regulations are too often implemented in a one-size-fits-all format, inappropriate for the local variation of community needs and preferences for health services.

Instead, medical care and health insurance regulators could focus on setting floors on acceptable policies, both in terms of quality control (such

as not paying for unneeded surgeries or frequent readmissions) and setting minimal requirements for health insurance policies. Regulations should include incentive packages that encourage overcompliance, and could encourage provider organizations to publicize details on their own performance record. This will enable consumers to demand better value for their health care costs, in terms of quality and better fit to their own values.

Those providers who most effectively internalize quality control (reducing medical errors, improving care coordination, etc.) and active patient engagement in directing their own care will be best positioned to succeed in this competitive race to the top. As public satisfaction with their local health system improves, community leaders could highlight these improvements in hopes of attracting new jobs and residents.

This polycentric path to reform requires critical contributions from medical care providers, public officials, professional associations, community organizations, and individuals acting as patients, care providers, consumers, and citizens. Sustained progress on one front could serve to reinforce others, especially if health stakeholders and community leaders meet regularly to discuss mutual concerns and opportunities, and to learn from each other's experiences. But we can't force them to do so by regulatory fiat. Nor are the potential financial gains likely to be sufficiently large or short-term in realization to overcome the force of organizational inertia. Instead, local leaders need to want to learn from each other, and to take actions to do so on a regular basis. In sum, local health stakeholders and community leaders need to be willing to act as responsible stewards of a health system that they have, to a great extent, constructed themselves. Evoking that sense of responsibility lies at the core of the commons perspective on health reform.

## **Conclusion**

This paper combines two conceptual lenses to offer a new perspective on potential reform of the US health system. First, the lens of commons research reveals the existing plentitude of mini-commons programs for medical treatment, quality improvement, innovative payment models, and health promotion. Since these programs are managed as common property, this widespread experience can serve as a foundation for extension of the commons perspective to the community level.

Second, the institutional literature on polycentric governance shines a bright light on the essentially local nature of health regions, thus greatly

expanding the opportunities to experiment with innovative programs of medical care, insurance coverage, and public health. Working together, these perspectives should encourage health care professionals and the public at large to make more concerted efforts to understand the health care system as it is, to appreciate why it is so fragmented, and to experiment with changing it in a more consciously strategic fashion, in order to turn fragmentation, which may in the end be inevitable, to better purposes.

In the compound republic designed by the founders of the US Constitution, the primary role of the national government was to secure conditions that enabled effective self-governance at state and local levels (V. Ostrom 2008). Today, health policy serves as a political football in unrelenting and increasingly pointless confrontations between partisans on the left and right of our political spectrum. Broader appreciation of the positive aspects of a patchwork system, built primarily from the bottom up, should help direct our collective attention to identifying the strategic priorities that could guide future efforts to transcend the limits of the current system.

In a democracy, governance is not something that “the Government” does to us, but instead something we do to ourselves every day, as we reenact and reinforce expected patterns of interaction with each other. New laws and regulations and standards won’t have any impact, ultimately, unless they are incorporated into our mutually negotiated expectations of each other. Implementing this vision of polycentric governance in health policy can succeed only if large portions of the citizenry become more actively engaged in their own care, and more generally engaged in their local communities. Following a polycentric path to health reform might end up being as good for our democracy as for our health.

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