RESEARCH REPORT

Hospital Rate Setting Revisited

Dumb Price Fixing or a Smart Solution to Provider Pricing Power and Delivery Reform?

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Executive Summary

High and increasing health care prices have long been a serious policy concern in the United States and may be for years to come. In recent years, several analyses have pointed to higher health care prices as the leading cause of health care spending increases since 2000 and as a major reason that health care in the United States is nearly twice as costly as health care in other developed countries. Although the growth in overall health care expenditures in the United States has slowed in recent years (for reasons not well understood)an increasingly concentrated provider industry and other factors that improve provider negotiating leverage, along with the diminishing effectiveness of current market-based strategies (e.g., increased cost-sharing with employees and the expanded use of tiered or limited-provider networks) raise significant concern regarding the future ability of health plans and other market-based strategies to resist further price-raising efforts by providers.

One approach to addressing the growing consolidation of provider systems has been aggressive antitrust enforcement and policy approaches that would promote market entry of competitors. However, consolidation through mergers and resulting provider concentration has already taken place in many markets. Antitrust is not an effective tool for addressing the behavior of extant, legally acquired monopolies. In such circumstances, market entry of competitors is required to provide lower-price alternatives, but barriers to entry are varied and entrenched in many jurisdictions, and powerful provider systems are able to keep would-be competitors out.

We think it prudent to explore regulatory rate setting approaches to addressing high and increasing provider prices. As a substitute for active competition, states are permitted to take advantage of state action immunity from the antitrust laws by affirmatively overseeing health care providers' pricing and related market behavior. Despite a common misunderstanding in health policy circles that the all-payer systems of past decades were failures, state-based rate setting had a strong track record of cost control for a long period and is still common and quite effective in many Organisation for Economic Co-operation and Development countries. Rate setting should be considered a demonstrated approach, with a record of successes and failures, for states that want to address market consolidation that reduces competition and raises prices.

This report reintroduces state-based hospital rate setting as an approach to addressing the growing concentration of market power by hospitals. First, we take a comprehensive look at what rate setting is and how it works, with emphasis on the variations in the different state-based rate setting approaches adopted. Then, we discuss the record of rate setting in the states that operated all-payer rate setting

schemes, including the jurisdictions that ultimately abandoned it. Next, we examine in depth the programs that have persisted in West Virginia and Maryland and discuss the lessons learned from these systems. Finally, we describe the ambitious approach now being implemented in Maryland to move from setting prices to setting budgets for hospitals and ultimately all health care spending. As a companion piece to this overview, we provide an interview with key participants in the Maryland rate setting commission's activities (Berenson 2015b).

A Primer on State-Based Rate setting Systems

Starting in the late 1960s and early 1970s at least 27 states implemented programs with support from the federal government to either review or directly regulate hospital rates and budgets. State-based rate setting authority was used to achieve several objectives: constraining total hospital expenditures, improving payment equity, reducing price discrimination, supporting hospitals by financing uncompensated care, and reducing a state's Medicaid budget.

The rate setting programs established during this period varied considerably, but most states implemented voluntary approaches involving public disclosure and/or the nominal review of hospital rates or budgets by a state agency. The strongest form of price control was achieved through mandatory compliance systems overseen by rate setting agencies with statutory authority to both establish and control hospital rates. Hospitals operating under these systems were required by law to charge the rates set by the rate setting agency and were forbidden to change those rates (outside of preestablished corridors) without first obtaining approval from that agency.

Generally, hospital rate setting involves an authority, usually a state agency, with statutory power to establish and control payment rates for commercial insurers, self-funded plans, and Medicaid. State-based systems varied considerably in the governance and financing of these agencies, and the rate setting methodologies developed. Five of the seven mandatory compliance systems were formula-driven: after an initial detailed budget review, a hospital's approved base-year costs and rates were trended to future years.

All-payer systems, which established a common set of rules governing hospital payments from public and private payers, required a federal waiver that permitted a state rate setting agency to supplant national Medicare payment rules with its own. These demonstration waivers (also referred to as all-payer waivers) required each system to hold the growth in hospital expenditures to some

negotiated rate and otherwise demonstrate how payment incentives could be used to achieve policy goals.

All mandatory, all-payer rate setting programs shared one common feature: they operated on a fully prospective basis. This meant that once base year rates were established, a hospital's rates in succeeding years were trended forward independent of actual cost. Prospective rate setting created incentives for hospitals to reduce their operating costs: any reduction in hospital costs for a given service, under a rate regulated and constrained revenue trend, led to increased profits that the hospital could keep. A common misconception is that all-payer rate setting requires the same payment level for a given service at a given hospital across all patients and payers. Though rate setting systems did reduce the variation in prices, the systems did not set a fixed price paid by all payers per unit of service. Rate setting policies instead used systematic methods to determine how much rates can vary.

The first key feature of rate setting systems was the method for establishing the rate base from which the initial payment rates are derived. Most state programs derived base rates from a hospital's historical costs, adjusted by "standards of reasonableness" that usually involved comparing that institution's costs to the costs of similar hospitals in the state. Although this represented the most politically feasible approach to setting initial rates, the peer group adjustments typically were relatively small and led to complaints from relatively lower-cost hospitals about unfairness. In response to these criticisms, rate setting programs over time often moved to include some component of a standard average cost in the approved rates.

The second key feature of rate setting systems involved agencies' methods for updating or trending rates from year to year. Each rate setting system allowed periodic adjustments to account for costs beyond a hospital's control (such as the underlying inflation in the economy) or that the rate agency did not want hospitals to attempt to control (such as patient case-mix). State all-payer systems, such as Maryland's, also relied on myriad adjustments to rates when attempting to evaluate the relative efficiency of particular hospitals, whether in the establishment of initial rates, in the course of a methodology to reestablish base rates, or on an annual evaluation of the relative efficiency of all hospitals in a state. Most payment systems using diagnosis-related groups (DRGs) also had a provision for outlier cases such as unusually costly patients within a DRG for which supplemental payments beyond a preestablished threshold are made, usually on a cost or per-diem basis). Most state-based all-payer systems also included volume adjustments in their methodologies, which are designed to limit a hospital's incentive to increase its service volumes.

The Rise and Fall of Rate Setting

Mandatory rate setting first developed in New York State in 1971 with the establishment of a program, eventually housed in the state Department of Health, that covered hospital rates paid by Medicaid and Blue Cross. Massachusetts also created an independent rate setting commission around this time that was empowered to approve Blue Cross contracts with all Massachusetts hospitals and set rates for Medicaid beginning in 1975. New Jersey similarly began setting rates in 1974 for only Blue Cross and Medicaid, under the aegis of the state Department of Health. Independent commissions with the authority to set rates for non-Medicare payers in Maryland, Washington, and Connecticut also started setting rates in 1974, 1975, and 1976, respectively. Later to the rate setting game were systems in Rochester, New York, and the Finger Lakes area of New York in 1980, which were established with the goal of demonstrating that hospital cost containment could be achieved through the use of community-wide all-payer hospital global budgets. The West Virginia system was implemented in 1985 and applied only to commercial insurers (including Blue Cross plans).

Three circumstances influenced the development of these programs. First, faced with opposition to raising taxes, state legislatures and governors actively supported them largely as a means of controlling fast-rising Medicaid expenditures. Second, stakeholders, including hospitals, increasingly were concerned about the possibility of major payment limits imposed by the federal government. Third, the cost-based Blue Cross contracts with hospitals, which where were mandated by state statutes, led to hospitals dramatically raising their charges to other commercial payers to fund care to uninsured patients.

The literature on the cost effectiveness of rate setting has concluded that growth in expense per day and per admission during the late 1970s and early 1980s in states with rate setting systems was substantially lower than in states without them. In this more mature phase of rate setting, states refined and strengthened methodologies and attempted to improve payer equity by reducing the payment differentials and expanding mechanisms to more equitably fund uncompensated care. This period was also characterized by tightened rate setting constraints and the development of more aggregated payment structures using DRGs.

With the exception of Maryland, the rate regulatory systems were governed by laws that prescribed most of the key standards, formulas and factors used in the rate setting process. To respond to unanticipated problems or changes in the delivery system, states enacted many sweeping legislative changes over several years that transformed rate setting methods, sometimes in dramatic ways. As rate setting systems evolved, they became increasingly complex. Hospitals in Massachusetts and New York

complained they could not understand the system and critics pointed out that incentives do not work if they are not comprehensible. In New Jersey, an appeals process was created to allow hospitals to seek relief for cost overruns related to factors such as nursing shortages and the AIDS epidemic, but a flood of 2,000 appeals from the state's 85 hospitals led to regulatory gridlock. Countervailing pressures caused system changes to placate one interest group at the cost of losing support from others.

Gradually, because of increasingly poor cost control, coalitions of hospitals, insurers, and employers that had come together to support rate setting began to unwind. Simultaneously, the growth of managed care and the success of health maintenance organizations at driving down provider payments gave critics of rate setting an argument that the market could control costs better. The debate over rate setting can also be viewed as a microcosm of the larger debate over the efficacy of the market versus regulation to make health care affordable: the political winds, as exemplified by the "Reagan Revolution," were turning against government action to solve economic problems. Following the election of Republican governors in Massachusetts and New York in the early 1990s, hospital rate setting was abandoned in Massachusetts in 1991 and in New York in 1997. The other rate setting states, except for Maryland and West Virginia, joined the exodus.

Though some degree of regulatory failure and regulatory capture did undermine the effectiveness, the primary reason for the abandonment of these systems was the gradual erosion of strong backing from a broad coalition of stakeholders. This support had been central to providing the rate setting agencies and commissions the political cover necessary to maintain tight and effective systems. Private and public employers were largely ineffective in opposing hospital rate demands because the rate setting systems were complex, there was little understanding of the economics of health care, and employers could trade off health care benefits against smaller wage increases for their employees. The political power of hospitals coupled with the weakening of businesses' support for rate setting made rate systems politically vulnerable. Support also eroded because of a generally increasing reliance on market mechanisms. This took the form of managed care, which was effective for a time but ultimately generated both a consumer and a provider backlash to some of its perceived intrusions into care delivery.

Remaining Programs: West Virginia

In response to the rapid growth of hospital expenditures in the late 1970s and early 1980s, West Virginia enacted a certificate of need program in 1977 and legislation to create a hospital rate setting system in 1983, both administered by the West Virginia Health Care Authority (HCA).

Under its rate setting authority, the HCA sets revenue limits for nongovernmental payers, that is, Blue Cross, other commercial insurers, self-funded employers, and self-pay patients. Medicare, Medicaid, and the West Virginia Public Employees Insurance Agency were exempted from the HCA rate review authority. The HCA's statutory duties include protecting the public from unreasonable or unnecessary increases in the cost of acute care hospital services, deterring "cost shifting" through review of discount contracts and rates for nongovernmental payers and through maintaining or improving appropriate access to health care services, and collecting and disseminating health care cost information.

Similar to the experience in many other states, the approach used for establishing annual hospital charge limits in West Virginia evolved from detailed annual budget revenue and cost reviews to the use of a formulaic benchmarking methodology, which provides a narrow range of permitted annual percentage increases. The overall system establishes a corridor within which hospitals and payers are free to negotiate payment levels on an item-by-item basis: the ceiling provides an upper limit on inflationary rate increases from dominant hospitals with pricing power; the floor is designed to protect hospitals from dominant insurers able to use their market power to push rates below average cost.

Although the statute allows for alternative methods of rate determination to encourage payment innovation, this provision is generally not used. This is in part because of the flexibility already afforded hospitals and payers in determining the structure of their payment arrangements; the HCA is interested in determining that the actuarial value of the average of all payments fits within the established price corridor so unit charges can vary widely Also, although the enabling statute did discuss the need to improve the overall quality of care, the HCA has not implemented quality-based pay-for-performance payment mechanisms. Payers and hospitals are able to address quality–related requirements through their contracts.

Overall, the West Virginia rate setting system appears to have modestly limited both hospital markups and cost increases based on data from the American Hospital Association. In 2005, for instance, the state had the 12th lowest markup of charges over costs (101 percent in West Virginia versus a national average of 167 percent). From 1985 to 2007, West Virginia hospital cost per

equivalent admission increased at an average annual rate of 5.0 percent compared to the national average of 5.3 percent. In 2012, the median gross price per inpatient discharge in West Virginia was about 26 percent lower than the United States median. Simultaneously, the West Virginia hospital system's extremely high admission and readmission rates and outpatient use are striking, so performance on per-capita hospital spending is significantly higher.

In general, West Virginia rate setting has stood the test of time with reasonable support from the hospital industry, in part because it permits relatively generous growth in charges in a state with one dominant insurer. That insurer could likely negotiate more favorable rates in the absence of rate regulation, but it doesn't need to do so to maintain its market share. The system has likely survived because the HCA has adopted a gentle regulatory approach by establishing relatively wide corridors for approved charge increases with room for market-based negotiations over discounts and other terms in the contracting between hospitals and payers. Over time, however, it may well be that the absence of a Medicare waiver to provide an all-payer approach will prove to be a destabilizing factor, especially given the diminishing proportion of commercially insured patients covered by the system.

Remaining Programs: Maryland

Maryland was the first, most stable, and only remaining all-payer hospital rate setting program. It has experienced a gradual evolution in its design and has emphasized a more cooperative relationship between the hospital industry and the rate setting body. The enabling legislation was enacted in 1971, at which time Maryland hospitals' cost per admission was more than 25 percent above the US average. After a period of data collection and development of initial methodologies, the Health Services Cost Review Commission (HSCRC), an independent state agency, began setting rates in 1974. Unlike other all-payer states, the enabling rate setting statute did not prescribe the details of the methods to be used. Instead, it contained very broad language, identifying the key policy objectives and principles that should guide the development of the system. However, the broad statutory language may also have contributed to a series of legal challenges mounted by the hospital industry in the early years of the Maryland system. The following policy goals were implicit in the HSCRC statute: (1) constrain excessive hospital cost growth; (2) increase the equity and fairness of the payment system; (3) ensure that hospitals would have the financial ability to provide efficient and effective care to all Maryland citizens, regardless of their ability to pay; 4) improve access to hospital care by financing reasonable levels of uncompensated care; and 5) make all parties, including the regulatory body itself, accountable to the public .

The HSCRC believed that hospitals should operate under a consistent set of payment incentives, so Maryland was the first of several states to negotiate a waiver from Medicare, which went into effect in July 1977 soon after the HSCRC had successfully established initial rates for all Maryland hospitals. The initial waiver was negotiated as a demonstration waiver and subject to an annual rate of growth test and discretionary approval by the US Secretary of Health and Human Services. The annual uncertainty regarding whether the waiver would be continued prompted Maryland to seek to establish the terms of the waiver in federal statute. This was accomplished in 1980 with the "waiver test" and other requirements specified in section 1814(b) of the Social Security Act. The waiver test required that Maryland Medicare payments per case, cumulatively from the base year, grow less rapidly than payments per case nationally.

The HSCRC believed that regulation should substitute for the market only to the extent that the market is failing, but otherwise should give hospital managers flexibility. An emphasis on controlling cost rather than operating margins permitted hospitals that achieved cost reductions to keep those savings in perpetuity. The system was noteworthy for its emphasis on the collection of timely and accurate data from hospitals, regulation of a consistent relationship between approved charges and costs, and prohibitions on unjustified discounts and price discrimination.

To achieve a broader level of cost constraint than would be afforded by a unit rate setting system, however, the HSCRC established a hybrid system of per-unit payment and per-case constraints (case-mix adjusted using all-payer refined DRGs) for inpatient services and per-visit constraints for outpatient care. Under this system, during the course of the year, if a hospital is successful at reducing its unit costs, ancillary use per day, or length of stay for inpatient cases, it is allowed to incrementally increase its unit charges such that the revenue it receives per case on average is equal to its preestablished charge per-case target. Another important feature of the Maryland system has been the use of a volume adjustment to reduce the incentives for hospitals to increase service volumes. Over time, the loosening of volume controls led to increases in hospital admissions and avoidable readmissions.

The flexibility of the HSCRC statute allowed Maryland to establish alternative and experimental methods of rate determination to improve efficiency and promote quality, including (1) its hybrid case-mix adjusted per-case constraint system referred to as the "guaranteed inpatient revenue" system; (2) a "screening" system that compared the relative efficiency of hospitals in various peer groups; (3) the uncompensated care pooling mechanism that equalized the magnitude of uncompensated care funding in each hospital's rates; 4) a global budget system for rural hospitals; (5) an admission-readmission-

based episode payment approach; and 6) incentive-based quality programs, which included value-based purchasing and hospital-acquired conditions initiatives.

In 1976, as rate setting was beginning, the cost of a Maryland admission was approximately 25 percent above the US average. By 1993, Maryland cost per admission was more than 11 percent below the US average. However, like other rate setting states, in the early 1990s the HSCRC shifted its focus from cost containment to the profitability of Maryland hospitals. More generous hospital payments compromised the state's Medicare waiver test performance. In response, in 1995, the HSCRC began reducing allowed annual hospital rate increases and eliminated the ability of hospitals to store excess revenues. At the same time, the hospitals requested removal of the volume adjustment system, the stringency of which already had been greatly diluted since the early 1990s. The HSCRC thought that managed-care organizations, strong in Maryland at that time, would continue to be effective in restricting unnecessary hospital use growth, permitting them to accede. The HSCRC eliminated the volume adjustment altogether in exchange for three years of guaranteed annual rate updates that were below market basket inflation.

Following the implementation of this new system in 2001, Maryland hospital volumes for both inpatient admissions and outpatient services began to grow rapidly. Although hospital profitability did improve slightly over this period, it appears that the rapid increase in hospital revenues during this period were matched by large increases in operating costs, in particular associated with the growing subsidization of physician practices and large increases in capital expenditures. In 2008, the HSCRC decided to restore the previous volume adjustment methodology that provided hospitals 85 cents on the dollar for volume growth above baseline and modified its case-mix adjusted charge-per-case constraint system.

These efforts significantly curtailed the growth in per-capita hospital expenditures, primarily through reduction in admissions and outpatient encounters, and as a result Maryland's average charge per case started to increase rapidly. In 2011, in response to significant state budget deficits, the state also legislated a 3.4 percent Medicaid provider tax to the hospital rates paid by all payers. This assessment, along with the other changes designed to reduce hospital admissions and readmissions, again eroded the state's performance on the Medicare waiver per-case payment growth test such that the HSCRC projected that the state was on course to fail the test by 2013.

In 2012, with the system poised to possibly fail the waiver test and lose the significant additional funding from Medicare and Medicaid, estimated at approximately $1.5 billion per year for inpatient services alone, the HSCRC began negotiating with the Center for Medicare and Medicaid Innovation for

a new waiver focused on limiting the growth in hospital expenditures per capita and improving the overall value of the care. After a year of negotiation, the Center for Medicare and Medicaid Innovation approved Maryland's application for a revised hospital payment approach that included Medicare for a five-year period beginning January 1, 2014.

The central idea of the demonstration was to test hospitals' ability to control the volume of hospital services provided by eliminating fixed-rate payment arrangements in favor of prospectively established global budgets covering all payers. In addition, before the end of the third year of the five-year demonstration period, the state can submit a plan for an expansion of new payment approaches to extend beyond hospitals to include all Part A and Part B Medicare services for Maryland residents in a second demonstration phase. In essence, phase two of the demonstration was intended to address all Part A and Part B Medicare spending, not just hospital spending, by encouraging the development of population-based payment methods designed to meet the goals of the Centers for Medicare and Medicaid Services' three-part aim.

Under the terms negotiated with the Center for Medicare and Medicaid Innovation for phase one of the waiver, Maryland hospital revenue is now subject to two specific per-capita constraints: (1) a limitation on the rate of growth of Maryland hospital revenue per capita to 3.58 percent annually, reflecting the 10-year average annual growth in Maryland's gross state product; and (2) a limitation on the growth in hospital expenditures per Maryland Medicare beneficiary to 0.5 percent less than the national growth rate. Achievement of this latter limitation would save the Medicare program an estimated $330 million over the five-year period of the waiver.

The state is required augment its quality-based, pay-for-performance programs covering hospital-acquired conditions, readmissions, patient satisfaction, the use of evidence-based process measures and patient safety measures to render them as least as effective as similar measures implemented by Medicare nationally or maintain such programs at that effectiveness. The state is also required to reduce readmission rates to be at or below the national rate by the end of 2018, the final year of the demonstration.

An Appraisal of Rate Setting's Performance

The preponderance of empirical research indicates that since their introduction in 1975, mandatory rate setting programs have generated savings and reduced the trend in hospital expenditures over

sustained periods. This success would have been greater if the constraints on prices had not been partially offset by service volume responses to the incentives in the different systems.

All-payer rate setting systems have also been recognized for the development of inherently fairer payment systems that tended to level the playing field for hospitals regardless of where they are located, the populations they serve, or other operating circumstances. An important feature was provisions to pay for the care of uninsured or underinsured patients through rate mechanisms that spread the cost of uncompensated care more equitably across all payers, including public payers in most cases. Further, the literature demonstrates that rate setting has generally had a positive effect on hospital financial stability and viability. Maryland has been recognized by independent sources for its year-to-year stability and narrower distribution of earnings of individual hospitals compared with hospitals nationally.

Contrary to predictions by some health policy experts that rate regulation would interfere with market-based activities, such as managed care, the rate setting states of Maryland, New York, and Massachusetts all experienced rapid growth in managed care in the 1980s. Arguably, exemptions to allow large insurers to negotiate discounts actually distract from efforts to reduce unnecessary hospital services and to shift care to more cost-effective ambulatory settings. These managed-care strategies could be compatible with most rate setting systems.

However, all the rate setting states experienced some regulatory failure in the forms of (1) excessive complexity, which obscured the financial incentives of the system, undermined its cost containment capability, and led to gaming by the hospital industry; (2) regulatory delays and gridlock and (3) some degree of regulatory capture. Regulatory failure was most apparent in Massachusetts, New York, and New Jersey, where the rate setting systems become so complex that only a small group of regulators and hospitals fully understood them. The most effective systems strike a balance between maintaining communication with the industry and political independence and regulatory distance. Though all rate setting systems modified their approaches to improve cost control, enhance payment equity, increase access to hospital care for the uninsured, and bolster hospital financial stability, only Maryland had sufficient flexibility to engage in continuous evolution of payment methods, adjust to accommodate the growth of managed care, and eventually create innovative and more effective incentive-based payment structures.

Conclusions and Recommendations

Despite the ACA payment reforms and the oft-repeated mantra of moving payment from volume to value, fundamental elements of our health care system remain largely unchanged. The health sector is still characterized by (1) the predominance of fixed-rate payment incentives that fragment care and work against clinical management and care coordination efforts; (2) a fragmented system of health care purchasers using disparate payment structures with inconsistent incentives; and (3) a powerful provider sector that is increasingly consolidated and able to exert more leverage over prices in its negotiations with commercial insurers. Although insurers are also consolidating, there is little hope that bilateral monopolies will produce the needed negotiating balance that would temper the "must-have" providers' ability to negotiate rates that permit extravagant profits while even well-managed "have-not" providers that care for low-income individuals and depend on typically low Medicaid payments face difficulty surviving.

State-based rate setting can support a better-functioning health care market: it has a positive record of addressing both what hospitals can charge and receive in payment and protecting against the volume increases that are likely once prices are constrained. In addition, rate setting can help support some forms of market competition by limiting payment rate differences so that insurers and providers can try to distinguish themselves in the marketplace through better quality, service, and ability to direct care to the most appropriate service site.

Legitimate concerns exist about many states' ability to implement effective rate setting. Given the significant data requirements, inherent complexity, and political pitfalls associated with rate setting, it may be that very few states have the ability to establish and maintain elaborate rate setting systems that will stand the test of time. Successful all-payer systems require the development of a politically independent regulatory body that is free of conflicts of interest and resistant to both industry capture and political meddling. This appeared to be best accomplished in states that established independent commissions. Perhaps the most successful way to avoid industry capture is to have standards of performance imposed on the system by the federal government that are relatively invulnerable to state political pressure. In addition, it would also be helpful for the federal government to subject the state and stakeholders to significant negative consequences should the system fail to meet relevant and reasonable performance standards.

Based on our review of the record of and experience with hospital rate setting in the United States, we make the following recommendations to guide the development and implementation of successful rate setting systems:

- Rate setting approaches should be automatic and formula-based. Clear incentives are more effective and easier to administer than annual detailed budget-review approaches.
- The logic and promise of state-based rate setting lies in the potential of all-payer rate setting through the approval of a Medicare waiver.
- A clear articulation of policy goals, principles, and regulatory tenets is important to avoid excessively complex methods that obscure basic financial incentives.
- Policy goals should emphasize payment equity and fairness while attempting to limit provider systems' price-discriminatory practices.
- The commission needs to provide periodic public reporting on system performance relative to preestablished goals and targets; such reporting should make all parties, including the regulatory body, accountable for their performance.
- Rate setting should not limit its purview to concerns about prices or overall costs. Payment approaches need to explicitly consider the need to reduce the potential for adverse consequences on patient quality and access to care.
- State-based rate setting should be supported by broad federal constraints and other performance expectations to reduce the potential for regulatory capture.

Chapter 1. Introduction

Background

Once at the center of policy efforts to (1) control costs, (2) improve payment equity across payers, and (3) finance hospital care to the uninsured, state-based hospital rate setting programs fell out of favor and were abandoned by most states in the early to mid-1990s. Only two states still have such programs: Maryland, which operates an all-payer hospital rate setting program, and West Virginia, which administers a hospital rate control program that is applicable to commercial payers. The policy shift away from regulatory approaches during that time reflected a general preference for market-oriented strategies, such as competition among managed care companies.

Following the dominance of managed care in the 1990s—and perhaps in response to it—the hospital industry engaged in significant merger and consolidation activity. By 2006, about 75 percent of metropolitan service areas were considered to be "highly concentrated" per Federal Trade Commission (FTC) and Department of Justice (DOJ) guidelines that measure provider concentration (Gaynor 2011).[1] Considerable evidence indicates that a growing concentration of hospital markets and increased negotiating leverage by hospitals leads to rising prices for hospital services and higher payments by privately insured patients (Gaynor and Town 2012; National Academy of Social Insurance 2015). Varying levels of market power across hospitals and health systems also appear to be a major reason behind the significant variation in pricing in certain markets (Blue Cross Blue Shield Association 2015; Massachusetts Attorney General 2010, 2011, 2013; Office of the Health Insurance Commissioner of Rhode Island 2010; White, Bond, and Reschovsky 2013).

Some economists believe that there is a limit to the ability of providers to continually increase prices. Those economists argue that continued price increases can occur only if hospital market power is continually increasing (Pauly and Town 2012). However, it is clear that hospitals are also able to gain negotiating leverage for reasons less related to consolidation. Examples include (1) so-called must-have hospitals (hospitals that health plans must include in their network to make the plan marketable to consumers); (2) geographically isolated hospitals; (3) highly specialized hospitals, such as children's hospitals; and (4) health systems that are highly concentrated in one region and that use such leverage to negotiate higher prices from a given insurer for system hospitals in another region (Berenson, Ginsburg, and Kemper 2010).

High and increasing hospital charges, combined with increasing proportions of cases admitted through the hospital emergency departments, also contribute to the ever-declining negotiating leverage of private health insurers. When high-charge hospitals negotiate with health plans, the hospitals have one of two options: (1) take a lower negotiated in-network rate and receive higher volumes of patients by virtue of being in the network, or (2) decline to be in the network and often receive much higher payments for the smaller patient volumes admitted through their emergency rooms. The higher the potential profit on emergency room patients that pay out-of-network rates, the stronger the incentive for the hospital to drive hard bargains with insurers over negotiated prices (Murray 2013).

That strategy, which is used by hospital systems and individual stand-alone hospitals, undermines the ability of insurers to promote and develop narrow networks of lower-cost providers. Those hospitals demand to remain in insurers' primary networks and receive high rates, or else they threaten to charge exorbitant prices for out-of-network emergency care. The threat of astronomical payments for out-of-network emergency care, combined with the understandable inability of insurers to limit the use of emergency care to their own networks, enables those dominant health systems to force insurers to include them—along with their extremely high prices—in their primary networks.

The United States now seems to be experiencing a second wave of provider consolidation, possibly stimulated by elements of the Patient Protection and Affordable Care Act (ACA; Berenson 2015a). Declining Medicare payments and the encouragement of greater levels of provider integration through the promotion of accountable care organization (ACO) formation may be behind increased merger activity since the passage of the ACA in 2010.[2]

The past few years have seen the rapid development of ACOs, which were intended to stimulate more prudent health spending under new payment incentives. However, the development of Medicare ACOs may give providers cover to pursue additional vertical and horizontal consolidations, which can contribute to providers' market power to raise prices. Regulatory rate setting may be an appropriate policy response to integrate providers into ACOs, which, left to their own devices, could use their enhanced negotiating leverage to raise prices to commercial insurers further—even if they improve quality and reduce costs. By raising their prices through new market power, the ACOs, in essence, would keep their savings for themselves rather than passing them back to consumers in the form of lower insurance premiums.

High and increasing health care prices have long been a serious policy concern in the United States. In recent years, several analyses have pointed to higher health care prices as (1) the leading cause of

health care spending increases since 2000 and (2) a major reason that health care in the United States is nearly twice as costly as health care in other developed countries (Anderson et al. 2003; Farrell et al. 2008). Given increased levels of provider consolidation and the ability of hospitals and health systems to extract increased payments from the private sector, high and increasing provider prices may become a predominant policy issue for years to come.

Recent evidence indicates that providers are continuing to drive private sector prices higher. In March 2015, the Medicare Payment Advisory Commission (MedPAC) reported that despite lower Medicare and Medicaid payments, hospital total (all-payer) profit margins were at the highest recorded level since MedPAC has been collecting data on all-payer hospital profitability (MedPAC 2015b). MedPAC attributes that outcome to all-payer average price increases that have exceeded cost growth as a result of recent increases in private payer prices. In particular, MedPAC points to the Health Care Cost Institute (HCCI) reports that payment rates to private insurers grew between 5 and 6 percent per year from 2011 to 2013 (HCCI 2012, 2013).[3] MedPAC concludes that although restraining Medicare prices may put pressure on hospitals to reduce their cost growth and may help constrain the long-run growth in hospital prices, the full increase in private prices is not caused by Medicare pricing. Hospitals in 2013 increased their prices sufficiently to generate the highest overall profit margins in more than 20 years, largely, according to MedPAC, because they had the market power to do so (MedPAC 2015a).

Although the growth in overall health care expenditures in the United States has slowed in recent years (for reasons still not well understood), some conditions raise significant concern regarding the future ability of health plans and other market-based strategies to resist further price-raising efforts by providers. Those conditions include the presence of an increasingly concentrated provider industry and other factors that improve provider negotiating leverage, along with the diminishing effectiveness of the current array of market-based strategies (e.g., ever-increasing cost sharing with employees and the expanded use of tiered or limited provider networks).

Some analysts would point to the current round of announced insurer mergers as a marketplace response to address the greater leverage that providers have had in their negotiations with payers. In July 2015, Aetna agreed to acquire Humana; later in the month, Anthem and Cigna announced merger plans. Those deals would create the second- and third-largest health insurance entities after United Health Care.[4]

However, most analysts doubt that consumers will ever see the benefits of greater insurer negotiating clout in the form of lower premiums (Ellison and Gamble 2015; Frakt 2010). Dominant insurers already are present in many health care markets, but they need only to obtain the most

favorable rates that providers accept, not necessarily low rates (Berenson 2015a; Dafny, Duggan, and Ramanarayanan 2009). Instead, the planned mergers may lead to a system of bilateral monopolies and may stimulate a medical arms race that will encourage further provider consolidation (Herman 2015).

One approach to addressing the growing consolidation of provider systems is to create better-functioning markets while using more aggressive antitrust enforcement and adopting a menu of policy approaches that would promote market entry of competitors. One such list includes the following:

1. Encouraging payment reform that rewards quality and cost effectiveness
2. Liberalizing the scope of practice restrictions to allow more efficient use of human resources
3. Breaking down regulatory barriers to telemedicine and digital products that enable health management
4. Refining antikickback rules and payment restrictions to enable innovative, integrated ventures that would change the delivery of care (Herzlinger, Richman, and Schulman 2015)

But these strategies, though useful, will face considerable political opposition, and if they are implemented piecemeal they will not likely inject a significant degree of competitive zeal into health care markets largely dominated by hospitals and health systems. Given the failure of antitrust enforcement to prevent anticompetitive mergers in recent decades, the consolidation in many markets through mergers and the resulting provider concentration have already taken place. Antitrust is not an effective tool for addressing the behavior of extant monopolies that have been legally acquired (Greaney 2014). In such circumstances, market entry of competitors would be required to provide lower-price alternatives. But barriers to market entry are varied, and they are generally entrenched in many jurisdictions, including the ability of powerful provider systems to keep out would-be competitors.

In short, we think it prudent to explore overtly regulatory approaches to addressing high and ever-increasing provider prices, although we need to recognize that all-payer rate-regulatory systems can also be politically problematic in most jurisdictions. As a substitute for active competition, states are permitted to take advantage of state action immunity from the antitrust laws by affirmatively overseeing the pricing and related market behavior of health care providers (Havighurst 2006). For states that wish to address growing provider market concentration, that reduces competition and may lead to higher provider prices, rate setting should be considered as a demonstrated approach. Although

rate setting has a record of both successes and failures, it may be an effective way of limiting the negative economic effects of monopoly pricing without states having to adopt the range of politically difficult policy initiatives that might permit market entry to create effective competition.

Reconsideration of All-Payer Rate Systems

Despite a common misunderstanding in health policy circles that the all-payer systems of past decades were failures, in fact—for an extended period of time—state-based rate setting had a strong track record of cost control (Atkinson 2009; Sommers, White, and Ginsburg 2012). And, of course, all-payer rate setting is still common and has worked quite effectively in many Organisation for Economic Co-operation and Development countries (Busse and Riesberg 2004; Cheng 2010; Ikegami and Anderson 2012).

Analysts at the RAND Corporation and the Urban Institute argue that besides prohibiting discriminatory pricing by providers, the implementation of all-payer rate setting has excellent potential for significant and sustained cost containment (Eibner et al. 2009; Holahan et al. 2011). In addition to having the ability to prevent further unwarranted price increases and cost growth, those programs have a strong track record of (1) supporting hospitals' social mission by financing uncompensated care and medical education, and (2) recognizing the extra burdens placed on hospitals that serve large proportions of poorly insured and indigent patients (Murray 2009). Thus, rate setting may offer a solution to the challenge of how to support "have not" hospitals' ability to provide access to high-quality care in rural areas and inner cities.

Given the presence of market failure in many local health care markets, and given the inability of either the competitive forces or public policy to address the issue of high and variable pricing, we think it is time to consider renewed federal support for and oversight of the development of state-based all-payer systems that cover hospitals and other providers. In the few years since other excellent reviews of rate setting were published, there have been new developments, particularly the major restructuring of the Maryland all-payer program. According to recent events, provider and insurer negotiating power has become a much more prominent public policy issue, which calls for a renewed interest in the range of federal and state policy approaches that might address rate setting.

Further, the early successes of rate setting by states stimulated proposals for all-payer rate setting nationally in the late 1970s and contributed to Medicare's adoption of the inpatient prospective payment system (IPPS), which was based on diagnosis-related groups (DRGs) in the early 1980s. The

experiences of states—particularly Maryland, in the context of its unique global budget hospital demonstration—may provide insights and lessons for current and future Medicare payment policy, as well as identify weaknesses in current payment reforms.

Purpose of the Report and Method

This report reintroduces the concept of state-based hospital rate setting as an alternative approach to unregulated market forces. First, we take a comprehensive look at what rate setting is and how it works, and we emphasize the variations in different state-based rate setting approaches that have been adopted. Then we discuss the record of rate setting in the states that operated all-payer rate setting schemes, including the jurisdictions that ultimately abandoned them.

Next, we examine in depth the two state programs that have persisted in West Virginia and Maryland, and we discuss the lessons learned from those systems. Finally, we describe the ambitious approach now being implemented in Maryland to move in two phases from setting prices to setting budgets for hospitals and then for controlling the growth of most all health care spending in the state. In addition, an interview with key participants in the Maryland rate setting Commission's activities is a companion piece to this overview of state-based rate setting (Berenson 2015b).

In approaching the topic, we reviewed the extensive literature, much of it published in the 1980s and 1990s in the heyday of rate setting. We supplemented the literature review and our analysis of the findings by interviewing a range of relevant stakeholders in West Virginia, on a not-for-attribution basis.

Chapter 2. A Primer on State-Based Rate Setting Systems

Impetus and Context for Development

Starting in the late 1960s and early 1970s, with support from the federal government, at least 27 states implemented programs to either review or directly regulate hospital rates and budgets (Schramm, Renn, and Biles 1986; Sloan 1983). Acknowledging the need to stop the extraordinary increases in hospital expenditures, the federal government (in section 222 of the 1972 amendments to the original Medicare legislation) encouraged innovative payment demonstrations that were at the state level and that included both voluntary and mandatory rate setting programs that covered commercial insurers (Davis et al. 1990).[5] The American Hospital Association and the Health Insurance Association of America, a predecessor to today's America's Health Insurance Plans, also supported state-based rate regulation in the 1970s (Crozier 1982).

State-based rate setting authority was used to achieve a number of objectives, some of which are (1) constraining total hospital expenditures; (2) improving payment equity and reducing price discrimination; (3) supporting hospitals generally, and urban hospitals in particular, by financing uncompensated care; and (4) helping to reduce a state's Medicaid budget.[6] The establishment of a mechanism to fund uncompensated hospital care was of particular importance to gain the support of the hospital industry in states that had many urban hospitals that treated large numbers of uninsured patients (Eby and Cohodes 1985).

The rate setting programs established during that period varied considerably. Most states implemented voluntary approaches that involved public disclosure or the nominal review of hospital rates or budgets by a state agency. The weakest forms of price control were rate-disclosure programs, in which hospitals were required to publicly file their annual rates and budgets, which they were free to set. Rate-review programs offered a slightly stronger form of control whereby hospitals were required by statute to submit their rates and budgets for state agency review. Although those review agencies could not compel hospitals to make rate adjustments, they could issue public statements that criticized unreasonably high charges and overall budgets (Schramm 1981).

The strongest form of price control was achieved by the so-called mandatory compliance systems. Those systems were overseen by rate setting agencies that had statutory authority to establish and control hospital rates over time. Hospitals operating within those systems were required by law to charge the rates set by the rate setting agency and were forbidden to change those rates (outside preestablished corridors) without first obtaining approval from that agency.[7] State rate setting programs were enacted in an era of focused regulatory activity within states, which also involved capital controls through the use of Certificate of Need programs and the establishment of health planning agencies to, among other functions, address duplication of health care facilities, in compliance with the National Health Planning and Resources Development Act of 1974 (Public Law 93-641).

By 1976, six states (Connecticut, Maryland, Massachusetts, New Jersey, New York, and Washington) had enacted legislation that authorized the development of mandatory-compliance rate setting programs (Biles, Schramm, and Atkinson 1980). A seventh mandatory program was adopted in West Virginia in 1985, but it did not include Medicare and Medicaid pricing. Four states (Maryland, Massachusetts, New Jersey, and New York) created statewide all-payer systems, which included the participation of (1) the Medicare program by means of waivers from Medicare's national payment principles, (2) Medicaid programs, (3) all commercial insurers, (4) self-responsible patients, and (5) self-funded plans.[8]

In the early 1980s, the Health Care Financing Administration (HCFA), the federal agency responsible for administering the Medicare program, also approved two regional Medicare waivers that created all-payer rate setting systems for hospitals in and around the Rochester and Finger Lakes regions of New York. Those regional demonstrations were known as the Rochester Hospital Experimental Payment (HEP) program and the Finger Lakes Hospital Experimental Payment program. The two regional systems operated autonomously from the larger New York hospital rate setting program that applied to all other hospitals in the state.

Although unique political forces and special interests were behind the legislated approaches taken in each state, the original six mandatory-compliance states shared certain characteristics. In general, they had higher per capita incomes, per capita health care costs, and population densities and had more hospital beds and physicians (relative to population) than did other states. Those six states were also characterized by (1) high and rapidly increasing Medicaid expenditures, which placed growing fiscal pressure on state budgets; (2) the presence of Blue Cross plans with significant market share; and (3) a predilection for regulatory solutions to address the problems of market failure (McDonough 1997).[9]

State experiences with rate setting seemed to influence the evolution of payment policy at a national level by demonstrating that a regulatory approach could be successful at constraining hospital cost growth. Carter-era cost-containment legislation in the late 1970s contemplated the establishment of a national rate setting system for hospitals, and some people believe that state rate setting programs were testing sites for the development of the Medicare IPPS, which was enacted in 1982 and implemented in October 1983 (Davis et al. 1990).

The common perception is that the policy paradigm at both the state and federal levels shifted with the defeat of federal cost containment legislation in 1979 and with the election of President Ronald Reagan in 1980. But despite the Reagan administration's antipathy toward rate regulation involving nongovernment payers,[10] Massachusetts successfully obtained a Medicare waiver in late 1982, and Congress passed further amendments to the Social Security Act in 1983 that directed HCFA to grant waivers to states that wished to develop all-payer rate setting systems.

Rate Setting Defined

Generally, state- or regional-level hospital rate setting involves an authority—usually a state agency—that has statutory power, as authorized by state legislation, to establish and control payment rates for commercial insurers, self-funded plans, and Medicaid. Rate setting gave those agencies control over the level of hospital revenue, the efficiency with which services were provided, and the way revenue was distributed among hospitals and among payers.

State-based systems varied considerably in terms of how those agencies were governed and financed, and rate setting methodologies developed to achieve the policy goals of the various systems. Some rate setting agencies were housed in the health department of a state (as in New Jersey and New York), whereas others were established as independent commissions that were governed by commissioners appointed by the governor (as in Connecticut, Maryland, Massachusetts, Washington, and West Virginia). The independent agencies usually were funded through assessments on hospital rates and therefore were outside the state's general fund. Those features were intended to help insulate independent rate setting commissions from political influences.[11]

Five of the seven mandatory-compliance systems were considered formula driven, in which, after an initial detailed budget review, each hospital's approved base-year costs and rates were trended to future years using a preestablished formula (Atkinson 2009). The two remaining states, Connecticut and Washington, continued to rely primarily on detailed annual reviews of individual hospital costs and

budgets to update rates annually. Also, because rate setting is a highly complex process, regulatory agencies were typically staffed by individuals with specialized and technical skill sets in the areas of health economics, hospital financing, accounting, and quantitative methods.

All-payer systems, which established a common set of rules governing hospital payments from public and private payers, required a federal waiver that permitted a state rate setting agency to supplant national Medicare payment rules with its own. Those demonstration waivers (or all-payer waivers) required each system to hold increases in hospital expenditures to a negotiated rate of growth and otherwise demonstrate how payment incentives could be used to achieve policy goals. Those waivers could be continued at the discretion of the secretary of Health and Human Services (HHS) through an annual approval process, which often created considerable uncertainty. In 1980, Maryland successfully incorporated the terms of its waiver in section 1814(b) of the Social Security Act, thus ensuring the continuation of Maryland's all-payer system as long as the state passed a Medicare-specific rate-of-growth test.

A common misperception of all-payer rate setting is that the approach requires the same payment level for a given service at a given hospital for all patients and payers. Although rate setting systems did reduce the variation in prices paid for a given service by different payers, the systems did not establish a fixed price paid by all payers per unit of service. Rate setting policies instead used systematic methods to determine the extent to which the rates would be allowed to vary. For instance, some payers—such as Medicare, Medicaid, and Blue Cross—received limited discounts or payment differentials that were either negotiated for political reasons or were a function of cost-averting activities, and those variations were thus considered economically justified by the rate setting authority.

The discounts provided to Medicare and Medicaid were meant to recognize their role as social insurance programs that reduced hospital uncompensated care. Blue Cross plans also received discounts because, it was thought, those plans helped avert hospital uncompensated care and otherwise provided better access to insurance for individuals with preexisting medical problems by offering 365-day open enrollment periods. Limited discounts were available to commercial insurers for other activities that sought to reduce hospital costs, such as the provision of up-front working capital to hospitals. Other payers' rates were increased to adjust for the discounts provided to Medicare, Medicaid, and Blue Cross to ensure that hospitals would receive, in total, their approved revenue. The granted discounts were then economically justified because all of the payer activities worked to reduce hospital costs.

An important feature of an all-payer waiver is that it creates a payment system in which the financial incentives facing providers are the same for all payers. If designed properly, the use of consistent payment methods in an all-payer system can eliminate the fragmentation of payment incentives that otherwise exists among the public payers and the myriad private plans. The use of consistent financial incentives can greatly contribute to cost containment and quality improvement. The use of common payment methods can also result in considerable administrative savings because hospitals and insurers would no longer need to haggle over the myriad of differing rate structures that have been negotiated over the years.

One potential downside to the use of a mandatory and uniform payment system, however, is that such systems may not accommodate payment innovation initiated either by hospitals or by private insurers. Yet rate setting systems were not all structured to be monolithic and inflexible. In Maryland, the original legislation gave the rate setting agency considerable flexibility in developing and accommodating new and innovative payment approaches—as long as they were consistent with the primary policy goals of cost containment, equity in payment, improved access, transparency, and hospital financial stability. Thus, statutory provisions that give a rate setting agency some flexibility to accommodate payment innovations can be a helpful feature that promotes the positive evolution of rate systems over time.

Basic Design Elements of Hospital-Based Rate Setting

In developing a rate setting system, regulatory agencies must decide how to address various structural characteristics that are common to prospective payment systems. Those important structural characteristics include (1) the establishment of initial or base rates and adjustments to those rates, (2) the methods for updating or trending rates to future years, (3) the unit of payment and unit of revenue constraint, (4) the various adjustments made to hospital rates, and (5) the process for enforcing compliance with the established rates.

The Importance of Prospective Systems

All mandatory, all-payer rate setting programs shared one common feature: they operated on a fully prospective basis. That meant that once base-year rates were established, a hospital's rates in succeeding years were trended forward, independent of that hospital's actual cost experience. Those

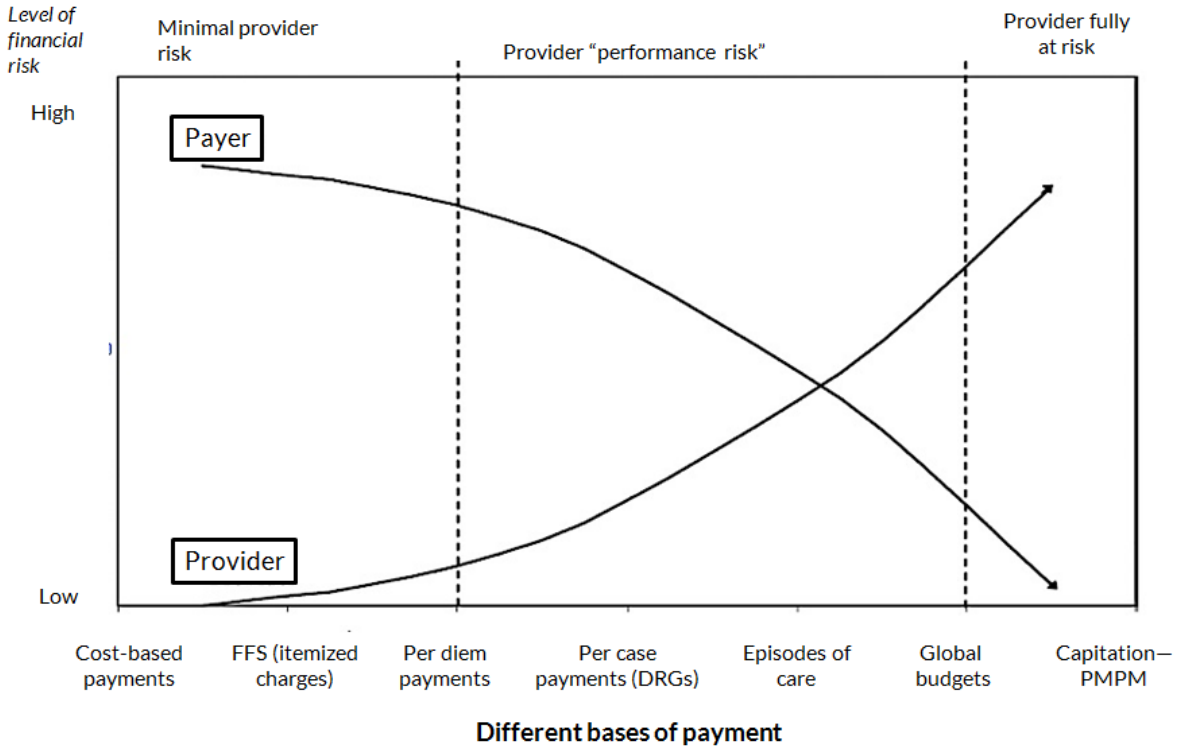
prospective systems were intended to address the inherent weakness of the cost-based payment methods previously in effect. Under cost-based payment—which was the predominant basis of payment for Medicare, Medicaid, and Blue Cross plans in the late 1960s and 1970s—there was little incentive for hospitals to control their operating or capital costs because the expenditures incurred would be the basis for that year's payments. Thus, under cost-based payment, hospitals were not held at risk for their cost increases and instead had incentives to increase their costs in any given year because they knew that their eventual payment levels would increase to reflect those additional expenditures. Additionally, payments from commercial insurers were made on the basis of the hospital's charges, and those charges could be set by the hospitals without constraint in the absence of a state rate setting authority.

By contrast, prospective rate setting created incentives for hospitals to reduce their operating costs. Under a fixed, prospectively established rate for a service, any reduction in hospital costs for that service led to increased profits that the hospital was allowed to keep under a revenue trend that was constrained by rate regulation. Although various states experimented with prospective systems in the late 1950s and 1960s, the state-based, mandatory-compliance, and all-payer approaches that were established in the 1970s and 1980s contained more powerful incentives for cost containment because they transferred higher levels of financial risk to hospitals. The amount of risk transferred to a hospital in a prospective payment system is also influenced by the structure of the payment arrangement, otherwise known as the "basis of payment" (e.g., payment per itemized units of service, per diem, per case, or per annual global budget). In short, the key to the cost containment success of all prospective rate setting systems is the transfer of manageable levels of financial risk to providers.[12]

Figure 1 illustrates risk transfer from payer to provider using different bases of payment. Generally, as the basis of payment broadens (moving from left to right in the figure from cost-based payment, to itemized charges per unit of service, to per diem, to per case, to per episode of care, to global budgets, and to capitation), the level of financial risk transferred from the payer to the provider increases. The transfer of larger amounts of financial risk to providers using broader bases of payment creates stronger incentives for the hospital to control costs.[13]

FIGURE 1

Transfer of Financial Risk from Payers to Providers and Increased Incentives for Cost Containment Using Different Bases of Payment



Note: DRG = diagnosis-related group; FFS = fee-for-service; PMPM = per member per month.

The Base Rate and Adjustments

The first key structural feature is the method for establishing the base rate from which the initial payment rates are derived. Most state programs derived base rates from a hospital's historical costs, adjusted by "standards of reasonableness" that usually involved comparing that institution's costs to the costs of similar peer hospitals in the state. Although that method represented the most politically feasible approach to setting initial rates, the peer group adjustments typically were relatively small, and they led to complaints that hospitals that had the misfortune to be low cost in the base year received relatively low base rates, whereas hospitals with high costs in the base year continued to be paid relatively generously.

In response to those criticisms, rate setting programs often eventually included some component of a standard average cost in the approved rates. An example of that type of approach was the method

used by Medicare in the first four years of the IPPS to blend each hospital's actual cost per case with regional and national standard cost per case. Such blends eventually brought the DRG rates for all hospitals using the IPPS to a national standard base rate. Similar blending methods were used in many state-based rate setting programs.[14]

States also differed in their definition of the "allowable costs" used to establish base rates. For instance, the state agencies had to decide whether their approved rates would be set to allow hospitals to fund such expenses as uncompensated care, direct and indirect medical education, capital-related costs, and working capital costs.[15] For the most part, those additional cost components were considered part of a hospital's "full financial requirements," and they were included in the approved rates. In general, a provision for hospital profit was not included at the time of the initial rate setting. Instead, once a hospital's base rate was established as a reasonable basis for covering its full financial requirements, it was up to a hospital to lower its costs relative to its approved rates and revenue to generate an operating margin in future years.

The Method of Updating Rates

The second important decision for rate setting agencies involved the method for updating or trending rates from year to year. Once each hospital's initial rates were set through detailed reviews of line item costs and overall budgets, most rate setting systems evolved to use a formulaic mechanism to update rates annually with automatic adjustments for inflation. The central idea of that approach was that hospitals should not be held accountable for factors affecting costs that were outside their control. In particular, because the effect of input price inflation on the cost of goods and services used by hospitals is beyond their control, the trending methods usually included an adjustment for the measured effect of inflation on hospital input costs.

Adjustments for inflation usually were accomplished through the use of an exogenous standard of hospital input cost inflation, such as the Medicare market basket index, rather than the actual cost increases experienced by individual hospitals.[16] Rate setting agencies generally had the flexibility to include additional adjustments to the annual inflation update, such as negative adjustments to account for expected improvements in hospital productivity and additional amounts to help pay for new services or new technology.

Annual rate adjustments received through that formulaic approach were usually automatically applied. Most systems also included a rate appeal process whereby a hospital could request rate

increases in excess of the automatic adjustment to cover the cost of planned capital projects or to address unusual circumstances not accounted for in the update formula. Correspondingly, rate agencies could also initiate subsequent full budget reviews of higher-cost hospitals that might lead to a rebasing (or lowering) of their rates. In some rate setting states, such as Maryland and West Virginia, the results of those hospital-initiated appeals were never guaranteed. A hospital that initiated an appeal took the risk of having its rates lowered to levels deemed "reasonable" by the rate setting authority.

The Structure of Payments and Constraints

An important feature of prospective rate setting is that it transferred financial risk to hospitals and made them accountable for managing their costs more effectively. The magnitude of that risk transfer could be modified through the adoption of a different basis of payment. The selection of a basis of payment is probably the most important policy decision involved in the formation of a rate setting system because it (along with other adjustments) determines the financial incentives hospitals face to control their costs.

As shown in figure 1 earlier, the incentives for cost control increase as the bundle of services subject to regulatory constraint increases from itemized units of service to more-aggregated incentive structures, such as per diem, per case, or hospital global budget constraints. As the scope of the revenue subject to control increases, hospitals assume increased levels of financial risk, which in turn translates into increased incentives to control a broader array of costs.

Table 1 also illustrates the relationship between a hospital's basis of payment and the amount of financial risk borne by the hospital and thus the strength of the incentive it faces to control costs. For instance, payment systems that set a rate for each itemized service (such as blood tests, imaging services, and outpatient visits, as shown in the first row) place hospitals at risk only for controlling the unit costs of those services. In per diem systems, the hospital is at risk for controlling both unit costs and ancillary use per day, but it is not responsible for controlling the length of stay.

With per case limitations, the hospital bears the risk of per diem payment and assumes the additional risk of controlling the patients' length of stay. Episodes of care go beyond per case methods by putting the hospital at risk for the costs associated with certain defined pre- and posthospitalization services.

With a fixed global budget, a provider is at risk for all of its service use and incentives to control its unit costs, its ancillary services per day, its patients' length of stay, its admissions and readmissions, and its outpatient service use.

With capitation, a provider assumes risk for the cost of all services covered by the arrangement for a specified population during the course of a given year.[17]

TABLE 1

Prospective Hospital Basis of Payment or Constraint

	Categories of Cost					
Basis of payment	**Unit costs**	**Ancillaries per day**	**Length of stay**	**Defined pre- and posthospitalization services**	**Hospital readmission rates**	**Total services per resident (PMPM)**
1: Discounted (itemized) charges	✓					
2: Per-diem payments	✓	✓				
3: Per-case payments (DRGs)	✓	✓	✓			
4: Episodes of care	✓	✓	✓	✓		
5: Global budgets	✓	✓	✓	✓	✓	
6: Capitation (PMPM)	✓	✓	✓	✓	✓	✓

Note: DRG = diagnosis-related group; PMPM = per member per month.

Different states adopted different approaches to the way hospital rates were structured and enforced. In the following discussion, we differentiate between the unit of payment (the way hospitals were paid after providing a service) and the unit of constraint (the unit used to measure and limit hospital revenue). That distinction is not completely intuitive, but it is worth understanding because the concept is central to understanding some of the successes and failures of the various rate setting systems.[18]

In systems using DRG-based case payment (i.e., New Jersey, New York after 1988, Massachusetts after 1984, and the Medicare IPPS), the unit of payment was the same as the unit of constraint. Those systems required that all payers pay hospitals on a per case basis, with different per case payment amounts for patients with different diagnoses, according to the DRG patient classification system

developed at Yale University (Fetter et al. 1980). As shown in table 1, per case approaches provide hospitals with incentives to control all costs and resource use per case because hospitals can improve their profitability by reducing the length of stay, ancillary use, or unit costs.

However, both the Maryland all-payer system and the HEP program used a hybrid system that superimposed a different unit of constraint on top of their system of payment. In the original Maryland system, hospitals received payment based on itemized charges per service and per day after a patient was discharged. However, the Maryland rate setting agency soon discovered that when it constrained the rate of growth of those unit rates, hospitals simply increased the volume of ancillary services and lengths of stay to generate additional revenue. Accordingly, in 1976, Maryland superimposed a per case constraint layered on top of each hospital's rate structure. The per case constraint—a predetermined, average charge per case that was adjusted for the case mix of patients treated (using the newly devised Diagnosis-Related Grouping system) —was the mechanism that controlled the amount of revenue per case that a hospital was allowed to generate.

During a given year, Maryland hospitals were required to monitor their revenue collected per case and to adjust their unit charges to ensure that their average revenue per inpatient case, after adjusting for that hospital's case mix, did not exceed the charge-per-case limit approved by the commission. If a hospital was doing a particularly good job of managing ancillary service use per day and length of stay, resulting in average per case payments below its preestablished case constraint, it was allowed to raise its unit rates incrementally until its revenue was back in line with the superimposed per case standard. Conversely, if a hospital did not effectively manage its volume of ancillary services or the days a patient stayed in the hospital, it was required to gradually reduce its unit rates to bring its average, risk-adjusted revenue per case in line with its approved per case constraint.

The incentives facing the hospital under that system were similar to the incentives of per case payment systems, such as the Medicare IPPS or the New Jersey DRG payment system. However, at the patient level, the system was much fairer and more easily understood because each patient's payment responsibility, at the time of discharge, was a function of the actual services used to treat the patient times the unit rates in effect at the time, rather than an average case amount.

In that hybrid system, the unit of payment was itemized charges per service. However, the unit of revenue constraint (and the incentive that hospitals faced) was per case. Thus, the overall basis of payment (as we have defined it here) was also per case because with that approach Maryland hospitals faced incentives to control their overall costs per inpatient case.

Under the new Maryland all-payer demonstration, which is described later in this report, Maryland hospitals continue to be paid on the basis of itemized charges. However, the commission changed the unit of constraint from an approved limit—a hospital's average revenue per case (case-mix adjusted)—to a limitation on a hospital's overall annual budget. Under the new system, the amount of revenue the hospital is able to charge and collect during the course of the year is limited to that approved global budget, regardless of the number of patients it treats or the number and types of services it provides. If the hospital successfully reduces its unnecessary or marginal inpatient services (e.g., ancillary use, length of stay, and admissions and readmissions), or outpatient services (e.g., emergency room use, clinic visits, and outpatient ancillary use), it is allowed to raise its unit charges so that the product of its units of service times its average charge per unit is in line with its preapproved global budget constraint. Again, if the hospital does not successfully manage the unit costs, ancillary use, length of stay, outpatient volume, and admission and readmission rates, it is required to reduce its unit rates to bring its total revenue in line with its approved budget.[19] In that way, the approved global budget acts to limit the hospital a fixed amount of revenue each year but also guarantee that amount.

Although more administratively complicated than a pure, per case payment system, hybrid systems of unit charges and more global constraints had several significant advantages. First, as discussed, the hybrid approach created a more equitable system for patients. Such equity arose because patients, the payer, or both paid only the billed charges for services used during an inpatient stay rather than the average for all patients in a particular DRG the latter model was a problem in New Jersey.[20] Second, the hybrid system allowed managed care companies to realize savings associated with concurrent utilization review and care management of their admitted patients. Thus, the system had the additional benefit of aligning the incentives of the hospitals and managed care entities with the goal of reducing hospital cost per case. That feature of the Maryland system may be one reason the rate setting did not seem to impede the development of health maintenance organization (HMOs) in the state (McDonough 1997). Over time, most programs moved away from controls based on per service or per diem payments. Instead, they leaned toward aggregate payment controls and adjustments to reduce hospital incentives to provide unnecessary or marginal hospital volumes.

Rate Adjustments

Each all-payer rate setting system allowed for annual or periodic adjustments to hospital rates to account for costs that were thought to be beyond a hospital's control or that the rate agency did not want hospitals to attempt to control. One example of an annual rate adjustment made for an exogenous

factor, as noted earlier, is the use of the market basket index to account for expected hospital input price inflation.

A factor that a rate agency did not wish a hospital to attempt to control was the mix of patients that it treated. Because the types of patients (or case mix) seen by a hospital affects the costs it incurs in providing treatment, it was necessary to adjust a hospital's rates and revenue for changes in its patient mix. In the absence of such an adjustment, a hospital would be incentivized to avoid or inappropriately transfer the most complex and severely ill patients. Case-mix adjustment was accomplished automatically in a DRG-based payment system, in which patients were classified into different diagnostic groups and the hospital was paid based on the average cost of treating that particular type of patient.

State all-payer systems, such as Maryland's, also relied on myriad adjustments to rates when attempting to evaluate the relative efficiency of specific hospitals, whether in the establishment of initial rates, in the course of a method to reestablish base rates, or on a state's annual evaluation of the relative efficiency of all its hospitals.[21] The adjustments used in those evaluations included factors that represented justifiable differences in hospital cost levels. In addition to case mix, those factors included adjustments for area wages, magnitudes of uncompensated care financed through rates, differences in capital costs, and direct and indirect medical education costs. Hospitals argued that those adjustments were required for a fair comparison of a hospital's costs or rates.

Most DRG-based payment systems also had a provision for outlier cases, or unusually costly patients within a DRG, for which supplemental payments beyond a preestablished threshold are made, usually on a cost or per diem basis. State-based per case payment and per case constraint systems also had outlier payments, generally with much higher thresholds than those used in Medicare.[22]

Medicare and most Medicaid and private payer prospective payment systems do not include volume adjustments as part of their payment methodologies. However, most state-based all-payer systems—such as those in Maryland, Massachusetts, and New Jersey and the HEP program in Rochester—did incorporate such a mechanism. The volume adjustment in those rate setting systems was designed to limit a hospital's incentive to increase its inpatient and outpatient service volumes.[23] The volume adjustments generally allowed only a portion—perhaps 50 percent—of the additional revenue generated by volume increases; such limits were on the grounds that hospitals have that percentage of fixed costs, which do not increase with volume increases. Similarly, most volume adjustment systems allowed hospitals to keep the 50 percent of revenue associated with volume

declines to allow them to cover their fixed costs and to encourage them to make appropriate volume reductions.

The essential idea of those volume adjustments, then, was to capture some of the variable revenue in excess of variable cost realized by hospitals that had increased volume of services. Rate adjustments associated with increased hospital volumes generally were applied through future rate reductions. Likewise, in the event of declining volume, those adjustment systems would increase a hospital's rates in a subsequent year to cover the hospital's fixed costs.

The health services literature, then and now, supports the proposition that hospital volumes—admissions, readmissions, outpatient visits, outpatient procedures, and diagnostic tests, in particular—exceed the levels required for high-quality, cost-effective care (Institute of Medicine 2013). However, there is debate about the actual level that hospital costs vary with changes in volume. It depends on numerous factors, such as the hospital's size and the time period over which hospital costs are being measured. Much of the academic literature suggests that hospital variable costs exceed 80 percent of total costs (Gaynor and Anderson 1995; Pauly and Wilson 1986). However, that finding is not corroborated by hospital chief financial officers (CFOs), who believe that the true figure is in the 50 to 60 percent range (with the rest representing the fixed cost of capital, utilities, certain staffing that is volume independent, and many other items).[24]

In the absence of a volume adjustment system that recalibrated a hospital's rates to remove the excess of variable revenue over variable cost (as previously described), hospitals needed to find alternatives. A hospital that sought to improve its financial position frequently opted to expand its services to include sleep clinics, advanced imaging, pain clinics, and others, with the clear-eyed expectation that the variable revenue from those services would far exceed variable costs. Hospitals that viewed their costs as 40 to 50 percent fixed also strongly resisted the incentives in payment structures—such as shared-savings arrangements for hospital-based ACOs—to reduce hospital utilization because they believed they would be unable to cover their fixed costs as volumes declined (Miller 2013).[25]

Compliance

Once a rate setting agency determined the structure of payment and constraint, the compliance process involved enforcement of those limits or targets. Rate compliance essentially involves comparing the hospital's actual payments to its targeted rates or constraints within the prescribed

constraint model. For payment systems that apply to multiple payers, compliance can be carried out in the aggregate by comparing the hospital's total budget to its actual payments and then using the differences to adjust future year rates. Future year rate adjustments may include a penalty for significant overcharges.

It is important that a rate setting agency have strong legal authority to enforce compliance with the rates it establishes. The program in Connecticut, for instance, was less effective because the rate setting commission in the state was never provided with sufficient authority to enforce compliance with the approved rates (Atkinson 2009).

The Rise and Fall of Rate Setting in the United States

State-based hospital rate setting came into being largely as the result of a growing crisis over rising hospital expenditures and the related, growing inability of Medicaid programs and commercial insurers to finance the inexorable increases in hospital expenditures in the early 1970s. The development of rate setting also reflected a deep dissatisfaction with the existing cost-based payment regime's inability to constrain costs, to address payment inequities, and to maintain the solvency of hospitals that provide a large amount of uncompensated care (Eby and Cohodes 1985).

Proponents' support of state-based rate setting programs often was rooted in an ideological belief that health care markets, left to their own devices, would not produce results consistent with governments' goals of cost containment, equity, access, and solvency. The interests of key stakeholders also played a major role in the development of rate setting systems. Successful rate setting was not a triumph of ideas and policy goals over the special interests of the key stakeholders. Rather, both were necessary to maintain a successful and stable system over time (McDonough 1997).

The discussion and debate over rate setting can also be viewed as a microcosm of the larger debate over the efficacy of the market versus regulation in generating the most effective solutions to pressing health care problems. That debate swirled around the individual state-based systems, became more passionate after the election of Ronald Reagan in 1980, and continues today. A related area of controversy in the debate about rate setting is whether market failure or regulatory failure is the bigger threat to the performance of any health care system. The answer to that question may well vary according to the political cultures in different states; there is not likely a national answer to the question. Varying perspectives on that issue will be raised in all states that wish to address rising and variable provider prices.

The next section attempts to illuminate the ways in which the various rate setting states tried to navigate the balancing act of promoting ideas and interests and of avoiding regulatory and market failure, while combining a blend of regulatory and competitive approaches.

State Rate Setting Experiences: A Summary

ORIGINS, 1969–85

Mandatory rate setting first developed in New York in 1971 with the establishment of a program, which was eventually housed in the US Department of Health, that covered hospital rates paid by Medicaid and Blue Cross. At about the same time, Massachusetts created an independent rate setting commission that was empowered to approve Blue Cross contracts with all Massachusetts hospitals and to set rates for Medicaid beginning in 1975.

New Jersey similarly began setting rates in 1974 for only Blue Cross and Medicaid, under the aegis of the state's department of health. Independent commissions with the authority to set rates for non-Medicare payers in Maryland, Washington, and Connecticut also started setting rates in 1974, 1975, and 1976, respectively. Later coming to the rate setting game were the Rochester and Finger Lakes–area systems in 1980. Those systems were established with the goal of demonstrating that hospital cost containment could be achieved through the use of community-wide, all-payer, hospital global budgets. The West Virginia system, which was implemented in 1985, applied only to commercial insurers (including Blue Cross plans).

The impetus for the development of the systems was largely a function of three circumstances. First, in the late 1960s and early 1970s, a majority of hospital payments (from Blue Cross plans, Medicare, and Medicaid) were governed by cost-based payment method under which hospitals were paid on the basis of their reported (and allowable) actual costs. As noted, a cost-based payment system involved no transfer of financial risk to hospitals and thus no effective incentive for hospitals to constrain their costs. As a result, hospital costs in most states were growing extremely fast and were driving large increases in hospital Medicaid expenditures at a time of state budget crises. Faced with opposition to raising taxes to fund the large increases, state legislatures and governors actively supported the development of prospective hospital rate setting systems—largely as a means of controlling Medicaid expenditures (McDonough 1997).

Second, state representatives (including hospitals) were increasingly concerned about the possibility of major payment limits imposed at the federal level. The economic price stabilization

legislation of the Nixon administration had just ended, and the cost-based payment methods of Medicare were generating unsustainably large increases in Medicare hospital expenditures. Many at the state level believed that a payment system that was designed and implemented locally would be better than having one imposed on the industry by the federal government (Davis et al. 1990).

Third, the cost-based Blue Cross contracts with hospitals, which were mandated by state statutes, led to hospitals dramatically raising their charges to other commercial payers to fund care for uninsured patients. That increase was required because the cost of uncompensated care, or care provided to people who are unable to pay, was not a reimbursable cost under the Blue Cross, Medicaid, or Medicare contracts. However, inner-city hospitals (the have-not hospitals of that era), with relatively small proportions of commercial insurance business, increasingly faced insolvency because of their inability to generate funding to pay for the care of increasing numbers of uninsured patients who were receiving care. In particular, financial distress among Maryland's inner-city hospitals played a major role in establishing the Maryland system, which was developed with strong support and cooperation from the Maryland Hospital Association.

Early rate setting systems were characterized by the use of more disaggregated payment structures, thereby focusing primarily on inpatient care and using per diem rates in most states. Major interest groups involved in the development of rate setting programs included state government and legislative policymakers who were concerned about rising Medicaid spending, Blue Cross plan administrators, and hospital representatives. In the Rochester and Finger Lakes areas, the involvement and support of area business leaders was also instrumental in developing rate setting programs (Block, Regenstreif, and Griner 1987).

ONGOING OPERATION, 1975–87

The literature about the cost effectiveness of rate setting has concluded that growth in expense per day and per admission during the late 1970s and early 1980s in states with rate setting systems was substantially lower than in states without mandatory systems (Atkinson 2009; Biles et al. 1980). However, that performance difference began to emerge only after 1975. The experience has led many people to conclude that it may take several years for state programs and rate setting officials to develop their rate setting methods and enforcement capabilities (Biles et al. 1980). Indeed, as the rate setting agencies gained experience and obtained additional legislative and regulatory authority to bolster their rate methodologies, the cost-containment effectiveness of those systems improved appreciably (Anderson 1991).

In the initial phase of rate setting—during which rate setting authority applied primarily to Medicaid, Blue Cross, and commercial rates—cost-control efforts were focused on constraining the growth of Medicaid and Blue Cross hospital expenditures. Hospitals that operated within those systems were allowed to raise their charges to, or essentially tax, non–Blue Cross plans to pay for increasing levels of uncompensated care. Over time, that policy led to large payment differentials between Blue Cross and other insurers, and it undermined the payment equity of those systems and seriously eroded the competitiveness of the private health insurance market. Thus, in addition to a refinement and strengthening of cost-containment methods, the second phase of rate setting was characterized by efforts to (1) improve payer equity by reducing payment differentials, and (2) develop and expand mechanisms to more equitably fund hospital uncompensated care.

Additional momentum to strengthen and rationalize the rate system in Massachusetts in the early to mid-1980s came from the involvement of business leaders, who organized major stakeholders to consider the development of an all-payer system. Massachusetts' hospitals supported that proposal because they feared that the national Medicare IPPS, which was under development at the time, would underpay the state's dominant teaching hospitals. With the support of all parties, the proposal was easily approved by the Massachusetts legislature, and the state was granted a three-year waiver from HCFA in 1982. Included in the plan was a mechanism to finance hospital uncompensated care through a system of rate surcharges and uncompensated care pools (McDonough 1997).

Similarly, hospitals, Blue Cross, and policymakers in New York (under the first of a series of three-year rate setting iterations called the New York Prospective Hospital Reimbursement Methodology and New Jersey moved quickly to establish mechanisms to finance uncompensated care. Those factions implemented rate surcharges and uncompensated-care pools that directed funds back to hospitals on the basis of their reported levels of bad debt and charity care (Hsiao et al. 1986; Thorpe 1987).

Whereas the systems in New York and Massachusetts imposed caps on the amount of uncompensated care that could be funded, the New Jersey system effectively "passed through" a hospital's reported bad debts and charity care. That policy led to an upward spiral of uncompensated-care funding—particularly to inner-city hospitals—and to increases in surcharges on rates to other payers because New Jersey's program provided virtually no incentive to engage in credit and collection activities for delinquent accounts. New Jersey also transitioned its hospitals from a per diem payment structure to DRG-based payment during that period, a system that eventually included Medicare under an all-payer waiver in 1982.

As noted, the second phase of rate setting was also characterized by tightening rate setting constraints and by developing more aggregated payment structures, such as the DRG-based, per case payment approaches, which were created in New Jersey in 1980, in Massachusetts in 1982, and in New York in 1988. Again, Maryland was the first jurisdiction to use DRGs in its hybrid payment system, DRGs were a means of constraining hospital revenues, with actual payment remaining based on itemized charges. The Rochester and Finger Lakes area hospitals also pioneered the concept of global budgets for 17 area hospitals (8 in the Finger Lakes region and 9 in Monroe and Livingston counties in the Rochester region) in the 1980s. Again, the payment structure involved a hybrid of interim pro rata and biweekly payments by each payer, along with the imposition of an aggregate global budget revenue constraint on each participating hospital.

From the outset, the Maryland system, which initially applied to virtually all non-Medicare payers, contemplated a system of broad-based financing of hospital uncompensated care with an all-payer rate setting structure. Maryland negotiated with HCFA for several years and was granted its waiver once it established approved rates for all hospitals in the state in 1977. Payments included financing hospital uncompensated care directly in the rate structure in the form of add-ons to each hospital's approved rates. Thus began a period of stability and effective performance for Maryland, which lasted from 1978 to the early 1990s (McDonough 1997).

Similarly, the Rochester and Finger Lakes area hospitals experienced a period of regional planning of services and facilities, effective cost containment with improved cash flows, and profitability within their unique all-payer system. The Rochester and Finger Lakes area hospital operating experience stood in contrast to the notoriously restrictive early iterations of New York state's nascent rate setting program, which uniformly caused hospitals in the rest of the state to run significant operating deficits (Block, Regenstreif, and Griner 1987; Farnand, Jacobs, and Dickson 1986). That system was also able to realize cost growth that was more than 4 percent less than US hospital cost growth on a compounded basis from 1980 to 1985 (Block, Regenstreif, and Griner 1987).

DEMISE AND DEREGULATION, 1988–96

With the exception of Maryland, the rate-regulatory systems in all other rate setting states were governed by rate setting laws that statutorily prescribed nearly all of the key standards, formulas, and factors used in the rate setting process. To modify those key methods in response to unanticipated problems or changes in the delivery system, rate setting states enacted many sweeping legislative changes over several years that transformed rate setting methods, sometimes in dramatic ways. By

contrast, Maryland's broad statutory language gave the Maryland rate setting commission the latitude to modify and evolve the rate system gradually.

In addition, the rate setting systems in Maryland, Massachusetts, New Jersey, New York, and the Rochester and Finger Lakes areas adopted a more formula-based approach to rate setting, which established clear incentives and targets but otherwise gave hospital managers decisionmaking flexibility. That approach was different from the more micro-oriented approach adopted in other states, such as Connecticut and Washington, which required detailed annual reviews of hospital rates and budgets that often infringed on the decisionmaking prerogative of hospital managers.

Although the broad statutory language in the Maryland law provided significant flexibility to the Maryland commission, the lack of specificity of the methods governing rate setting in law and regulation permitted several legal challenges against the Maryland system in its early years. The Maryland commission prevailed on most of the key court cases, which helped solidify Maryland's authority, but it points to the challenge of finding the right balance between the use of broad versus prescriptive language in state rate setting statutes.

An additional destabilizing force for many rate systems during that time was the development of the Medicare IPPS in 1983. Initially feared by many state hospital associations as a mechanism that would greatly restrict hospital revenue growth, the IPPS turned out to be unexpectedly generous for teaching hospitals after implementation in the mid- to late-1980s. Teaching hospitals in New York, Rochester, and Massachusetts quickly realized that they could fare much better financially under federal IPPS payment levels, and those hospitals pushed for abandonment of all-payer waivers. Medicare's participation in all-payer waivers was terminated in those three areas in 1985, facilitated by a growing policy view that market competition could substitute as the preferred approach to controlling costs.

As rate setting systems attempted to adjust to unanticipated problems and respond to the many requests from the hospital industry for methodological adjustments and for exceptions, those systems became increasingly complex. In Massachusetts and New York, hospitals complained that they could not understand the system, and critics hastened to point out that incentives do not work if they are not comprehensible (Jacobson et al. 1994). In New Jersey, an appeals process was created to allow hospitals to seek relief for cost overruns related to factors such as a nursing shortage and the AIDS epidemic, but a flood of 2,000 appeals from the state's 85 hospitals led to regulatory gridlock (Volpp and Siegel 1993).

Countervailing pressures caused system changes to placate one interest group at the cost of losing support from others. For example, in 1988 in Massachusetts, after several years of tight control, hospitals began to lobby for a loosening of the financial constraints, and they consequently won the ability to raise their rates well above the trend in medical inflation in 1988 and 1989. In New Jersey, in response to the backlog of rate appeals, rate setters effectively "threw up their hands and handed the industry over $1 billion" to settle those outstanding requests (McDonough 1997).

Gradually, because of increasingly poor cost control, coalitions of hospitals, insurers, and employers that had come together to support rate setting began to unwind. At the same time, the growth of managed care and the success of HMOs at driving down provider payments gave critics of rate setting an argument that the market could control costs better than a government bureaucracy. More generally, the political winds, as exemplified by the "Reagan Revolution," were turning against government action to solve economic problems.

The election of Republican governors in Massachusetts and New York in the early 1990s, a growing public preference for market-based solutions, and the inability of those systems to effectively constrain hospital charge increases also contributed greatly to eroding support (McDonough 1997). Hospital rate setting was completely abandoned in Massachusetts in 1991 and in New York in 1997. Massachusetts Blue Cross, freed from its statutory obligation to negotiate a master contract with all acute care hospitals, implemented a round of more stringent rate negotiations in the early 1990s. The state, as purchaser, also was eager to negotiate much steeper discounts from hospitals than are allowed under rate setting (McDonough 1995). In response, the Massachusetts Hospital Association attempted to convince the governor and the legislature to reimpose rate regulation. Governor Weld's retort was "you wanted a market; now you've got one" (Jack Keane, Blue Cross of Massachusetts Consultant, personal communication).

In New Jersey, significant negative publicity arose from cases in which itemized charges on bills were far lower than the average-based DRG payment that the state's rate setting program used (Cantor 1993; Rosko and Broyles 1987). Hospitals also received significant increases in payments under the DRG system through enhanced coding of secondary diagnoses on patient bills (so-called code creep). The state's hospital expenditure control rapidly eroded during that period, just as the national prospective payment system was tightening its control. In 1988, the state failed its Medicare rate-of-growth test, and the federal government refused to renew the Medicare waiver. Loss of the waiver contributed to commercial insurers' dissatisfaction with the system because they were then subject to increases in the surcharges to fund hospital uncompensated care (McDonough 1997).

Finally, a group of building trade unions with a self-insured fund in New Jersey won a lawsuit claiming that federal law preempted the state's authority to impose growing surcharges for uncompensated care.[26] Although the ruling called for only a restructuring of the system for funding uncompensated care, it quickly generated consensus throughout the state from hospitals and HMOs for the elimination of hospital rate regulation.[27] In 1992, the Republican-controlled legislature passed legislation that terminated rate setting.

The Connecticut and Washington state rate setting systems had also been characterized by less-effective cost control and persistent antagonism between hospitals and regulatory bodies throughout their histories. Both states' reliance on a system of detailed annual budget reviews and approvals contributed to the persistent discord. Such micro-oriented review systems inevitably result in tension between hospitals and regulators because the systems (1) are excessively time-consuming, (2) are administratively burdensome, and (3) often involve regulators in hospital operating decisions that are more properly the responsibility of hospital chief executive officers and chief financial officers.

Despite the very large annual hospital allowances afforded by the Washington commission and despite an enabling statute that was nearly identical to Maryland's, Washington's system proved unpopular with hospitals and was terminated in 1989. The Connecticut commission also suffered from insufficient rate enforcement authority, which greatly undermined the state's ability to control hospital expenditures. Connecticut's system, which also faced numerous court challenges by hospitals, was terminated in 1994 (Atkinson 2009).

In the early 1990s, in response to increased hospital cost pressures caused by labor shortages and other factors, Maryland, like other states, shifted its regulatory focus away from cost control toward ensuring the financial well-being of hospitals. As in many of the other rate setting states, early success in cost control laid the groundwork for an excessive loosening of revenue limits in the Maryland system (Atkinson 2009).

During that period, a series of (1) methodology changes, (2) frequent and generous rate increases for hospitals appealing their existing rate structures, (3) additional provisions to cover unexpected cost increases experienced by hospitals, and (4) the scaling back of the commission's volume-limiting volume adjustment system led to rapid increases in hospital charge levels and profitability. Another sign that the Maryland rate system had become too generous was the development of so-called banked revenue. Hospitals were allowed to accumulate magnitudes of approved revenue increases, but they were not required to reflect that profit in their rate structure. Those banked revenues collectively amounted to more than $500 million by 1996 on a base system revenue of approximately $6 billion.

When the surge in hospital revenues began to threaten the state's performance on its Medicare waiver test, the Maryland commission eliminated the banked revenue reserves that had accumulated, and it imposed a series of stricter annual updates to rates that brought the system back in line with its cost-containment goals. Failure to continue to meet the waiver test would have meant a transition to the Medicare IPPS system and substantial reductions in both Medicare and Medicaid hospital payments.

Aftermath

The post-rate setting period in states that abandoned their systems was characterized by (1) large cuts in the funding of hospital uncompensated care; (2) rapid growth in managed care, including a move of Medicaid beneficiaries into managed care organizations; (3) loss of significant market share by Blue Cross plans; and (4) significant hospital merger activity in all of the former rate setting states (including the union of Brigham and Women's and Massachusetts General hospitals in 1993 to become Partners HealthCare) (McDonough 1995).

The post-rate setting period in those states is also characterized by more rapid growth in hospital payments and expenditures, ever-widening payment disparities between public and private payers, and large variations in payment within the private sector between hospitals for the same service (Atkinson 2009; Ginsburg 2010). Maryland also experienced significant hospital merger activity in the 1990s and early 2000s, but continued rate setting because of state action immunity from antitrust in Maryland has meant that hospital consolidation is overseen by state regulatory programs, including rate setting and Certificate of Need (Government Accounting Office 1994).

Conclusion

Although some degree of regulatory failure and regulatory capture undermined the effectiveness of state-based programs, the primary reason for the abandonment of those systems was the gradual erosion of strong backing from a broad coalition of stakeholders (including state government, business, labor, and components of the hospital and payer industries). That support was central to providing the rate setting agencies and commissions the political cover necessary to maintain tight, effective systems. Over time, those broad coalitions of support began to unravel.

Hospitals remained very powerful politically. When rate systems ultimately became too effective, the hospital industry either (1) went directly to the state legislature to get statutory changes that mandated rate increases, as occurred in Massachusetts in 1988; (2) deluged the rate agencies with thousands of rate appeals, as was the case in New Jersey in 1991; or (3) placed great pressure on regulatory agencies for rate relief, as happened in Maryland in the early 1990s.

Private and public employers were largely ineffective in opposing hospital rate demands because (1) the rate setting systems were complex, (2) there was little to no understanding of the economics of health care, and (3) employers could trade off health care benefits against lower wage increases for their employees. The political power of hospitals, coupled with the weakening of support from business for rate setting, made rate systems politically vulnerable.

The development of price control and managed care systems by governmental payers also diluted legislative and executive branch support for state-based systems because they were no longer needed to control Medicaid and Medicare cost growth. The governmental could always either mandate very low annual rate updates or seek higher discounts on charges to balance budgets without having to raise taxes. That approach did not antagonize hospitals generally because the hospitals could meet their revenue and profitability targets through price discrimination—effectively taxing commercially insured populations.

Support for rate setting also eroded because of an increasingly general reliance in the economy on market-based mechanisms. In health care, that reliance took the form of managed care, which was very effective for a while, partly because those systems could use their newfound negotiating leverage to obtain substantial price discounts from providers. Ultimately, however, managed care generated both a consumer and a provider backlash to some of its perceived intrusions into care delivery. Managed care's initial success at achieving reduced rates of price increases also was countered by hospitals horizontally consolidating into large health care systems to alter negotiating dynamics with the payers. That trend started a consolidation binge that has now gone through at least two waves and has been a key driver of price increases over time.

Chapter 3. The West Virginia Rate Setting System

Background

In response to the rapid growth of hospital expenditures in the late 1970s and early 1980s, West Virginia enacted a Certificate of Need program in 1977 and passed legislation to create a hospital rate setting system in 1983. Both programs were administered by the West Virginia Health Care Cost Review Authority. Eventually the name of the agency was changed to the West Virginia Health Care Authority (HCA).

Using its rate setting authority, the HCA sets revenue limits for "nongovernmental payers"—that is, Blue Cross, other commercial insurers, self-funded employers, and self-pay patients. Medicare, Medicaid, and the Public Employees Insurance Agency were exempted from the HCA rate-review authority. The HCA's statutory duties include (1) protecting the public from unreasonable or unnecessary increases in the cost of acute care hospital services, (2) deterring "cost shifting" through review of discount contracts and rates for nongovernmental payers and by maintaining or improving appropriate access to health care services, and (3) collecting and disseminating health care cost information.[28]

The HCA was established as an autonomous division within the West Virginia Department of Health and Human Resources. It is governed by three full-time, salaried board members, who are appointed by the governor for six-year terms. They cannot be employed by or have a pecuniary interest in a hospital or health care provider organization.

The activities of the HCA and its small professional staff are funded by an assessment on hospital revenues of up to one-tenth of 1 percent per year—currently estimated to be about 0.1 percent—resulting in an annual budget of approximately $5 million per year. West Virginia originally intended to follow the lead of other rate setting states and to develop an all-payer system. However, its application for a Medicare waiver was not approved by the Reagan administration. All 31 acute-care general hospitals are subject to the HCA's charge limitations. Although the 19 West Virginia Critical Access Hospitals (CAHs) were originally subject to rate regulation, the HCA used existing authority to exempt

CAHs from rate setting in 2000. From that point on, CAHs have negotiated freely with commercial insurers.

After freezing hospital-budgeted revenue for one year, the state began a process of annual budget review and approval beginning in 1985. From 1985 to 1992, the HCA established revenue limits for hospitals on the basis of hospital revenues rather than of actual hospital costs. Costs increased at a faster rate in West Virginia than in the country as a whole during that period (Sommers, White, and Ginsburg 2012). In response, the legislature amended the authorizing legislation in 1991 to adopt a cost-based rate-review approach, which went into effect in July 1992. The 1991 legislation also required hospitals to file contracts involving discounts from approved charge levels for review and approval by the HCA board.

Rate Setting Methodology

Similar to the experience in most other mandatory state-based rate setting systems, the approach used for establishing annual hospital charge limits in West Virginia evolved from detailed annual budget revenue and detailed cost reviews to the use of a formulaic, benchmarking methodology, which provides a relatively wide range of permitted percentage increases on an annual basis. The benchmarking methodology was first implemented in the late 1990s. Given the automatic nature of the benchmarking system, most hospitals routinely opt for that process over the more rigorous, time-consuming, and often contentious standard application process involving detailed budget review.

Once a hospital's charge limits have been established, it is allowed to contract with individual commercial payers for payments that are above its costs but below the established charge limits. In effect, the overall system establishes a corridor between a hospital's predetermined, approved charge limits and its cost floor, within which hospitals and payers are free to negotiate payment levels on an item-by-item basis. The charge ceiling provides an upper limit on inflationary rate increases from dominant hospitals that have pricing power, whereas the floor is intended to protect hospitals from dominant insurers that are able to use their market power to push rates below average cost. This corridor-based approach stands in contrast to most other mandatory rate setting systems, such as Maryland, in which the approved rate largely acts as both a ceiling and a floor for a hospital and the hospital must adjust its charges to be in compliance with that approved rate.

Regulated hospitals also are free to negotiate both the structure of payment (e.g., per diems, per case, or capitation) and actual payment levels with private payers, as long as charges remain within the

aforementioned corridor. Unit charges can vary widely; the HCA is interested in ensuring that the actuarial value of the average of a hospital's payments from nongovernmental payers is within the corridor and complies with any approved annual update.

The Standard Application Process

The standard application process is administratively more rigorous, but it provides an opportunity for hospitals to request additional charging capacity to fund unusual cost items, such as the debt service associated with a large capital project or costs that were not included in their base revenues. The standard approach might also be chosen in circumstances in which the hospital considers cost pressures to be beyond its ability to manage, such as a large increase in its uncompensated care load. Also, lower-cost hospitals, which would fare relatively poorly receiving percentage increases, will sometimes selectively choose the standard process; higher-cost hospitals generally fare better with the benchmarking approach, which currently provides permitted charge increases that exceed inflation in hospital inputs, such as the cost of labor.

Because the standard application process entails a very detailed review of a hospital's operating costs and is structured to allow for exceptional circumstances, the HCA requires the submission of considerable cost data and other descriptive information at least 75 days before the beginning of the hospital's fiscal year. The HCA also offers a retrospective standard application option, whereby a hospital can apply during a given year and receive charge increases, if approved, retroactive to the beginning of the fiscal year. Through the standard application and associated hearing, a hospital must convince the HCA that it has managed costs effectively in the past and cannot otherwise generate efficiencies sufficient to fund the identified cost items.

The Benchmarking Methodology

The benchmarking methodology is a more expedited alternative to the standard application. It provides an automatic increase to each hospital's charge limitations each year. Hospitals that opt for the benchmarking methodology must file historical and projected charge and cost data to the HCA 60 days before the start of their next fiscal year. HCA staff members use those historical and projected data to compare the hospital's actual charge and cost per inpatient admission and per outpatient visit to average charges per case and to costs of a peer group of similar hospitals. Three different peer groups are used for that comparison, with hospitals grouped according to their size and the complexity of

services they provide.[29] To enable a fairer comparison, hospital charges and costs are adjusted to reflect differences in case mix, medical education costs, and labor market costs.

A hospital's annual approved charge update is a function of its adjusted charges and costs relative to the median of peer group hospitals for both inpatient and outpatient services. The approved update is determined by a preestablished formula that (1) compares each regulated hospital's adjusted charges and costs per inpatient discharge and outpatient visit to the median of such charges and costs of that hospital's peer group and (2) can lead to approved annual charge increases ranging from 2.5 to 7.5 percent. With the current benchmarking formula, a hospital that is 15 percent or more below the peer group median costs and 15 percent or more below the peer group median charges may be granted a 7.5 percent update. Likewise, a facility that is 15 percent above its peer group on average adjusted costs and charges would receive the minimum 2.5 percent update. The range of potential charge updates was first established as 2.0 percent to 7.0 percent in 2000; it was updated to the current 2.5 percent to 7.5 percent range in 2005. These were periods when inflation rates were higher than present levels.

Table 2 illustrates the result of the benchmarking methodology for the 10 acute care hospitals in peer group 1 for the rate year 2012. In that analysis, for instance, Wheeling Hospital's adjusted inpatient charges and costs per case are both more than 15 percent below the median peer group charges and cost per case. Consequently, the hospital's average case-mix adjusted charge per case limit is increased 7.5 percent for the rate year in question (see the last column, "maximum percent rate increase"). A similar analysis is performed for outpatient charges and costs per visit to determine each hospital's allowed increase in outpatient charges to nongovernmental payers.

TABLE 2

West Virginia Health Care Authority Peer Groups for Benchmarking (2012 Peer Group 1 Results)

Peer group hospital name[a]	Fiscal year end	All-payer adjusted charge per discharge[b]	Percent from median	Percent qualification based on charges	All-payer adjusted cost per discharge[b]	Percent from median	Percent qualification based on cost	Maximum percent rate increase
Wheeling Hospital	9/30	$9,734.01	-32.91%	6.50%	$4,988.80	-15.82%	7.50%	7.50%
Ohio Valley	12/31	$13,847.21	-4.56%	5.50%	$4,847.91	-18.19%	7.50%	6.50%
WVU Hospitals	12/31	$12,986.22	-10.49%	6.50%	$5,745.49	-3.05%	5.50%	6.00%
CAMC	12/31	$14,694.51	1.28%	5.00%	$5,574.45	-5.94%	5.50%	5.25%
Cabell Huntington	9/30	$14,792.91	1.96%	5.00%	$5,858.22	-1.15%	5.00%	5.00%
CamdenClark	12/31	$15,012.88	3.48%	4.50%	$5,994.12	1.15%	5.00%	4.75%
St. Mary's	9/30	$14,527.43	0.13%	5.00%	$6,106.57	3.04%	4.50%	4.75%
St. Francis	9/30	$14,488.90	-0.13%	5.00%	$6,445.11	8.76%	4.00%	4.50%
CAMC Teays Valley	12/31	$14,393.79	-0.79%	5.00%	$7,244.05	22.24%	2.50%	3.75%
Monongalia General	6/30	$15,445.75	6.46%	4.00%	$7,191.01	21.44%	2.50%	3.25%
Median		$14,508.17			$5,926.17			

Source: West Virginia Health Care Authority. *Annual Report 2013*. Table 5. Charleston, WV: West Virginia Health Care Authority. http://www.hca.wv.gov/data/Reports/Documents/AnuualRp2013/Table%205.pdf.

Note: Each hospital's final allowed maximum percent rate increase per the benchmarking rate methodology (see the last column) is determined by the West Virginia Health Care Authority's benchmarking algorithm, which combines, on a 50/50 basis, each hospital's "percent qualification" based on a hospital's relative position on adjusted charge per discharge and adjusted cost per discharge.

[a] Hospital peer group criteria: case mix > 1.300 or Level I or II trauma center; outlier threshold $72,900.

[b] Case mix adjusted using Medicare severity–adjusted DRGs.

How Approved Rate Increases Translate into Annual Payment Increases by Private Payers

Whether by standard or benchmarking review, the approved increase is applied to a hospital's inpatient charge limit, and a separately calculated increase is applied to the hospital's outpatient limit. So, for instance, if in year 1, a hospital's average case-mix adjusted charge per case limit is $10,000 and if it receives a 5 percent allowed increase, the following year it can charge no more than $10,500 on average to nongovernmental payers on a case-mix adjusted basis.

Once the hospital is granted its approved charge increase, it is allowed to increase its charge master (a list of its charges for each service). Individual nongovernmental payers may negotiate various discounts from charge levels (on a percentage of charges basis), or they may base a contract on a fixed fee schedule using variety of payment methods (per diem, per case, etc.). During the course of the year, however, a hospital's overall case-adjusted charge per inpatient case and outpatient visit for nongovernmental payers cannot exceed the charge-per-case and charge-per-visit limits updated by the benchmarking formula.[30] The hospital must monitor and adjust its charges up or down during the year to ensure that it remains in compliance with the preestablished charge limits.

If the hospital's actual case-mix adjusted inpatient charge per case in the subsequent year exceeds those limits, that hospital will be subject to penalties for noncompliance. The penalties generally lead to a reduction of the hospital's approved rate increase in the following year. In the past, hospitals were allowed to request that the HCA hold any accumulated penalties in abeyance (that is, delay assessing the penalty until some future year). During the 2015 legislative session, however, legislation was passed that eliminated all penalties held in abeyance and prohibited the HCA from forestalling the application of penalties because of a hospital's poor financial condition or other extenuating circumstances. Any calculated penalties must now be applied immediately to the given hospital's approved rates.

In general, the hospital industry has opposed the use of the penalty system used by the HCA, indicating that they believe that the penalties are an overly punitive and destabilizing aspect of the system. Yet the HCA rate setting staff believes that the use of those penalties is important to ensure that hospitals remain compliant with approved charge limits. As noted earlier, one major downfall of the Connecticut rate setting system was its inability to enforce compliance.

The way in which those charge increases affect actual private insurer payments depends on the existing contractual arrangements and relative negotiating leverage between a given hospital and the

commercial insurer. Commercial insurers generally pay hospitals according to either a negotiated discount from the hospital's charge master or a negotiated fee schedule, which also reflects discounts from charges.[31] Larger hospitals that have been able to negotiate a commercial contract with fixed discounts will generally realize nongovernmental payment increases that are commensurate with their HCA-approved charge increases. That is, as those hospitals raise their charges by the magnitude of the approved increase, payers who pay on the basis of a fixed discount will see their payments rise by that same amount.[32]

Payment levels from larger payers, such as the dominant Blue Cross plan in the state (Highmark), may not generally increase at rates commensurate with a hospital's annual approved charge increase. Instead, depending on the magnitude of the approved charge increased granted by the HCA, a larger payer might choose to renegotiate its contracted payment levels with a given hospital. So in the case of a hospital that was granted a 7.5 percent increase to its preestablished charge limits (as shown in table 1), payments from Highmark may increase at a lower rate (the annual growth rate negotiated by Highmark and that hospital per their existing contractual agreement). Thus, although the hospital in question is permitted to increase its charges 7.5 percent on average because of its favorable position relative to the peer group (table 1), the actual payment levels from Highmark may increase at a much lower rate as dictated by the negotiation process. That arrangement could mean that charges to other payers increase more than 7.5 percent so the hospital can realize its permitted average maximum charge.

Conversely, hospitals with high levels of negotiating leverage may be able to extract payment increases at or above the magnitude of the annual approved charge increase afforded by the annual benchmarking process. This is because there appears to be substantial room between hospital costs and hospital charge levels, which is evidenced by the results of the benchmarking analysis for one peer group in 2012 shown in table 2 above (the peer group's adjusted average charge per discharge is $14,508 compared with an adjusted average cost per discharge of $5,926, yielding a charge-to-cost ratio of 237 percent). A hospital's ability to negotiate higher payment levels will depend on (1) the degree of negotiating leverage it possesses and (2) its current payment level relative to its approved charge limitations. Hospitals with negotiated payments levels that are a high proportion of their average charge limits (say, 95 percent or more) will have less flexibility to increase negotiated payment levels. Hospitals with payment levels that are well below their charge limits, however, will have a greater window of opportunity to exercise leverage to extract higher payments from their nongovernmental payers. In such circumstances, the charge caps imposed by the HCA would be relatively ineffectual in constraining hospital payments and costs.

Moreover, as noted, there is a statutory requirement that a hospital's net patient revenues received under any of those payment arrangements cannot be below the hospital's average cost. Such a requirement is applied for each nongovernmental contract that a hospital has in effect in a given year. To ensure compliance with the requirement, hospitals must submit all private payer contracts to the HCA (in most cases, those contracts are also publicly available), along with cost information about the hospital, so that the HCA can certify that the prevailing discounts and resulting payment levels do not drop below the hospital's average cost.

Although the HCA has the authority to review contracts between hospitals and nongovernmental payers, it appears the primary purpose of this review is to ensure that average payments exceed hospital costs and not to determine whether negotiated payment levels are reasonable.

Although the rate setting statute allows for alternative methods of rate determination to encourage payment innovation, that provision is generally not used by the HCA. In part, the provision may be unnecessary because of the flexibility already afforded hospitals and payers in determining the structure of their payment arrangements. Also, although the enabling statute discussed the need to improve the overall quality of care provided in the state, the HCA has not implemented quality-based pay-for-performance payment mechanisms, although payers and hospitals may address quality-related requirements in their contracts.

Performance and General Satisfaction with the System

Overall, according to data from the American Hospital Association, the West Virginia rate setting system seems to have had some modest effect on limiting hospital markups and cost increases. In 2005, for instance, West Virginia had the 12th-lowest markup of charges over costs (101 percent versus 167 percent on average nationally). In 2011, West Virginia slipped to the 16th-lowest markup level, increasing its markup to 151 percent over costs (whereas US average markups increased to about 220 percent over costs). From 1985 to 2007, West Virginia hospital cost per equivalent admission increased at an average annual rate of 5.0 percent, whereas the national annual average was 5.3 percent (Atkinson 2009).[33] In 2012, the median gross price per inpatient discharge in West Virginia was about 26 percent lower than the US median (OptumInsight 2014).

The profitability of acute hospitals is reported in the HCA's annual report on both an overall (including investment and nonoperating income) and a net patient services basis. Although overall profitability (including both operating and nonoperating revenues) has been positive (averaging about

3.2 percent during the fiscal years [FY] 2005–13), margins from net patient revenues have traditionally been negative (averaging –2.2 percent during the same period). Despite approved charge increases granted in FY 2013, which averaged 5.03 percent per discharge and 4.48 percent per outpatient visit, West Virginia hospitals generated net patient services margins of –3.0 percent of net patient revenue, down from –0.7 percent in FY 2012 (West Virginia Health Care Authority 2014). Hospital interviewees emphasized that hospital capital stock in West Virginia was old and not being as rapidly replenished as in comparable states in the region because of low profit levels on revenue from patient service.

Although admission rates have declined in recent years, similar to trends occurring nationally, the West Virginia hospital system's extremely high admission rates, readmission rates, and outpatient use are striking. According to data compiled by the Kaiser Family Foundation, as of 2012, West Virginia hospitals had the second-highest admission rate (149), the sixth-highest outpatient visits (3,668), and the second-highest hospital emergency room visits (660) per 1,000 people.[34]

Accordingly, just as is the case with Maryland hospitals—which also had high hospital use rates—per capita hospital spending in West Virginia is quite high. Unlike the Maryland Health Services Cost Review Commission, however, the HCA has not directly attempted to address modifying the oversight process to discourage avoidable hospital admission or outpatient services.

Data from the National Health Expenditure Accounts for 2009 (the latest year available) show that West Virginia was 10th highest in per capita hospital spending ($3,073 per capital), whereas Maryland was 19th highest ($2,767). In contrast to Maryland, however, West Virginia is not characterized by high per capita income or high physician-to-population ratios, two factors that have been correlated with higher levels of health care spending per capita.

In 2010, there was a legislative push by the hospital industry to terminate rate setting in the state. On the basis of that movement, a series of meetings of key stakeholders subsequently were convened to discuss the future of the HCA and the possible need for modifications to the rate setting system, given the effects of the Affordable Care Act and the prospective shift of significant proportions of patients to Medicaid and Health Insurance Exchange products.

With the proportion of patients covered by commercial insurance dwindling (estimated to currently be only about 25 to 30 percent of residents), some stakeholders argued that there would be less need for the state rate regulatory system, given that a large majority of patients would be covered by the payment methodologies governed by Medicare, Medicaid, and the state employee payment systems.

The political pressure for rate setting modifications, however, seems to have abated, perhaps because the current HCA board has kept a low profile and has not taken controversial action. Nevertheless, close observers of the system have raised concerns about the West Virginia rate setting approach and its potential viability in future years.

Appraisal

First, perhaps the largest challenge the West Virginia rate setting system faces in the coming years is related to the diminishing proportion of the population covered by commercial insurance. That change is a result of (1) recent expansions of Medicaid eligibility and (2) aging of the population into the Medicare program. Given that Medicare and Medicaid hospital payment levels—which are outside the HCA's control—are not likely to keep pace with hospital cost inflation in the coming years and as the insured population subject to the rate system diminishes over time, the HCA may be forced to approve higher charge increases to commercial payers. By doing so, the HCA may, in effect, condone increased price discrimination to the private sector to ensure hospital solvency. That dynamic seems to be one potential weakness of those rate setting systems that do not apply to all payers.

Second, it appears that the methods used in the West Virginia rate setting process have not evolved substantially over the years. Although that lack of change may enhance the stability and predictability of the rate setting program, the inability of the system to evolve could also be viewed as a weakness. For instance, over the years, the HCA has not implemented quality-based, pay-for-performance incentive payment programs, even though development of such payment mechanisms has been a priority for Medicare nationally and for the Maryland rate setting program.

Additionally, although in recent years both Medicare and the Maryland system have implemented payment approaches designed to limit unnecessary volumes, the HCA rate setting approach provides no incentives to reduce unnecessary hospital care. West Virginia hospital inpatient and outpatient use remain among the highest in the nation.

Third, stakeholder interviewees reported that the HCA previously—but not currently—was viewed as acting politically, thereby favoring specific hospitals. That is a common complaint in the other rate setting programs as well, but it is difficult to verify. Hospitals that have their rate appeals denied, whereas other hospitals receive approvals, naturally tend to view those decisions as reflecting some degree of favoritism.

Fourth, the requirement that hospitals fully disclose the contractual terms of their arrangements with commercial payers was reported as an additional benefit. Although that level of transparency is generally viewed as desirable and a virtue of the system, the disclosure of all hospitals' payment terms could raise payment levels over time as relatively lower-paid hospitals with higher levels of negotiating clout seek to raise their rates to the allowed ceilings.

Fifth, some interviewees perceived that the system worked reasonably well to restrain hospital cost growth when hospital expenditures were increasing much faster than the growth in the general economy. Those interviewees emphasized, however, that the system is too generous in an era of more modest economic growth and cost inflation.

In general, West Virginia rate setting has stood the test of time with reasonable support from the hospital industry—in part because it permits relatively generous growth in charges in a state with one dominant insurer. That insurer could likely negotiate more favorable rates in the absence of rate regulation but does not need to do so to maintain its dominant book of business. The system has likely survived because the HCA has adopted a hands-off regulatory approach.

HCA established relatively wide corridors for approved charge increases, with room for market-based negotiations regarding discounts and other terms in the contracting between hospitals and payers. Although that approach may not be a model for other states, the West Virginia rate setting program seems to have served a purpose, particularly in a state in which many acute care hospitals are in relatively isolated areas and may otherwise be able to exercise considerable pricing leverage relative to nongovernmental payers.

Over time, however, the absence of a Medicare waiver and an all-payer approach may prove to be a destabilizing factor, especially given the diminishing proportion of commercially insured patients covered by the system. Other rate setting states that either lost or gave up their Medicare waivers experienced increasing instability because of (1) their inability to spread uncompensated care across all payers, (2) the growing payment differentials between public and private payers, and (3) the resulting erosion of the equity and fairness of those state-based systems.

Maryland, by contrast, has been a stable system, in large part because of the retention of its all-payer waiver, which allows the state to (1) spread hospital costs (including the cost of uncompensated care) equitably across all payers, (2) maintain consistent payment incentives across payers, and (3) allow for a more robust and continuous process of payment evolution and experimentation.

Chapter 4. Overview of Maryland Hospital All-Payer Rate Setting System

Background

Maryland's program was the first and most stable all-payer hospital rate setting program, and it is the only such remaining system. It has experienced an evolution in its design rather than the abrupt changes exhibited in some other states' programs, and it has emphasized a more cooperative relationship between the hospital industry and the rate setting body (McDonough 1997).

The enabling legislation was enacted in 1971. After a period of data collection and development of initial methodologies, the Health Services Cost Review Commission (HSCRC), an independent state agency, began setting rates in 1974. Unlike the enabling rate setting laws in the other all-payer states, the HSCRC's statute did not prescribe the details of the methods to be used. Instead, the statute contained very broad language, which identified the key policy objectives and principles that should guide the development of the system.

Implicit in the HSCRC statute were the following policy goals: (1) constrain excessive hospital cost growth; (2) increase the equity and fairness of the payment system; (3) ensure that hospitals would have the financial ability to provide efficient and effective care to all Maryland citizens, regardless of their ability to pay; (4) improve access to hospital care by financing reasonable levels of uncompensated care; and (5) make all parties, including the regulatory body itself, accountable to the public (Cohen 2011).

The law left substantial discretion to the regulators, a feature that afforded the commission considerable flexibility to initially design and evolve the system over time. However, the very broad statutory language may also have contributed to a series of legal challenges mounted by the hospital industry in the early years of the Maryland system.

The HSCRC's jurisdiction applies to hospital inpatient and outpatient facility charges. Initially, the commission was empowered also to regulate the fees of hospital-based physicians, such as radiologists, anesthesiologists, pathologists, and emergency room physicians. That regulation was based on the view

that hospital-based physician groups, which operate as quasi-monopolies, are strong candidates for inclusion under rate regulation. However, that authority was overturned by one of a number of court cases filed by hospitals challenging the HSCRC's authority in the 1970s. The court of appeals of Montgomery County decided that the professional fees of those physicians were not traditionally costs of the hospital and, therefore, were outside the commission's jurisdiction.

Another important feature of the Maryland statute is that it was structured to provide the rate setting agency political insulation by establishing the HSCRC as an independent division of state government. The HSCRC is governed by seven volunteer commissioners, who are appointed by the governor, and a professional staff that, over time, has grown from about 20 to nearly 40 personnel, with diverse expertise. The HSCRC's annual budget, which is approximately $8 million per year, was also funded by user fees not subject to the constraints of the state's general fund. Commissioners generally are individuals that have knowledge of and direct involvement in the health care industry in the state. Unlike the West Virginia system, however, which prohibits HCA board members from being associated with a regulated entity, three of the seven commissioner slots are allowed to have hospital affiliations as hospital board members, senior executives, and so forth.

In 1971, Maryland hospitals' cost per admission was more than 25 percent above the US average. The enabling statute for rate setting was the centerpiece of then-Governor Marvin Mandel's consumer protection legislation. The Maryland Hospital Association (MHA)—which was led by hospital trustees, rather than hospital administrators—also played a crucial role in the crafting of the legislation and in its passage. The MHA leadership decided that prospective, incentive-based payment could offer hospitals advantages over the retroactive cost-based payment methods used by Medicare, Medicaid, and Blue Cross at the time. As uncompensated care grew in the state in the late 1960s and early 1970s, a large group of inner-city hospitals were on the verge of insolvency; the rate setting system was seen as a means of financing the growing levels of hospital-provided uncompensated care. As business and community leaders, the MHA trustees saw the benefits of a rate system that was designed to (1) control unnecessary growth in hospital expenditures and, at the same time, (2) provide hospitals financial stability.

The HSCRC believed that hospitals should operate under a consistent set of payment incentives, so the state negotiated a waiver from application of the national Medicare payment system to Maryland hospitals. The waiver went into effect in July 1977, after the HSCRC had successfully established initial rates for all Maryland hospitals. The HSCRC approved a set of itemized rates that were specific to each hospital based on each facility's historical costs, with some adjustments where initial costs were considered excessive relative to the costs at peer hospitals. The initial waiver was negotiated as a

demonstration waiver, subject to the state meeting annual rate-of-growth test and subject to discretionary approval by the secretary of HHS.

The annual uncertainty regarding whether the waiver would be continued prompted Maryland to seek to establish the terms of the waiver in a federal statute. That was accomplished in 1980, with the waiver test and other requirements specified in section 1814(b) of the Social Security Act. The waiver test required Maryland Medicare payments per case, cumulatively from the base year, to grow less rapidly than payments per case nationally. Maryland successfully produced a large savings cushion in the early years of the system— the state would fail the waiver test and lose the waiver only if it once again had Medicare payments that were 30 percent above the national average.

Over the years, the Medicare waiver has remained the linchpin of the system. The waiver has been a galvanizing force for all stakeholders because it has afforded Maryland significantly higher payments from Medicare (and Medicaid) than the state would have received in the absence of the waiver (McDonough 1997).

General Approach and Underlying Payment System

Although the Maryland statute did not specify the rate setting methods to be used, it did stipulate that the payment system be prospective in nature. On the basis of that directive and other guiding principles in the enabling law, the HSCRC created a macro-oriented payment system that relies heavily on financial incentives. Although a hospital rate setting system can easily become extremely complicated, the HSCRC relied more on incentives than on rules and sanctions and made sure that the incentives it developed were clear so that hospital operators could respond effectively.

In addition, the HSCRC believed that regulation should substitute for the market only to the extent that the market is failing, but otherwise should give hospital managers as much flexibility as possible to respond to the goals and targets established by the market participants. An emphasis on cost control rather than hospital operating margins permitted hospitals that achieved cost reductions to keep those savings in perpetuity. In addition, the use of a formula-based approach for updating rates—as opposed to detailed budget reviews—and the perspective that results should be achieved incrementally over the long term, with a minimum of short-term regulatory intervention, also characterized Maryland's approach to regulation (McDonough 1997).

Besides reliance on financial incentives, the system was noteworthy for its emphasis on (1) the collection of timely and accurate data from hospitals, (2) regulation of a consistent relationship between approved charges and costs (the HSCRC believed that prices that reflect actual cost send the most effective signals), and (3) prohibitions on unjustified discounts and price discrimination.[35] Although prospective rate systems are unique in that they place hospitals at risk for their cost performance, the HSCRC qualified that requirement by deciding to hold hospitals at risk only for the activities that they could directly control. The HSCRC made adjustments to rates for a number of external factors, such as (1) a hospital's mix of patients, (2) the levels of uncompensated care it faced, (3) the level of medical education it provided, and (4) area wage variations, similar to adjustments made in the context of the Medicare IPPS and Outpatient Prospective Payment System (OPPS).

As discussed in Chapter 2, unlike the Medicare IPPS or the New Jersey DRG-based payment system, which established an average payment amount per category of diagnosis, Maryland uses a hybrid system that involves units of payment for the individual patient that differ from the units of constraint imposed on hospital revenues. The HSCRC regulates, and hospitals are paid, on the basis of itemized unit rates (e.g., a rate per day in a medical or surgical ward, per minute in the operating room, per outpatient visit or per ancillary test, etc.).

Those itemized rates were set initially based on each hospital's unit costs. However, once established, each hospital's approved rates were updated by means of an annual trend, or "update factor." Under that approach, a hospital that reduced its costs was allowed to retain those savings forever. Likewise, a hospital that experienced cost increases was forced to absorb those loses. That core method of payment to hospitals (payment on the basis of itemized unit rates and overall accountability for cost performance) has remained a consistent feature of the HSCRC system for the past 41 years.

To achieve a broader level of cost constraint than would be afforded by a unit rate setting system, however, the HSCRC established a hybrid system of per unit payment and per case constraints (case-mix adjusted, using All-Payer Refined DRGs) for inpatient services and per visit constraints for outpatient care.[36] So although hospitals were paid for the individual resources used to treat each patient through the core unit rate payment structure, their revenues were constrained on a per case basis—again, depending on each hospital's mix of patients categorized into each DRG. Because hospital revenue is directly controlled at the per case level, those per case constraints became, in the hospital's view, the de facto payment level. From an individual patient's perspective, there was a close relationship between that individual's actual resource use and a cost-sharing obligation.[37]

That system provided Maryland hospitals with financial incentives that are very similar to those of the Medicare IPPS and OPPS, that is, to control cost per inpatient case and per outpatient encounter. Although the mechanics of Maryland's rate setting approach are more complicated than those of Medicare IPPS, Maryland hospitals readily developed the ability to track their performance and respond to the incentives of their system. At the beginning of a rate year, each hospital is issued a set of approved unit rates and a predetermined case-mix adjusted charge-per-case target it must meet. During the course of the year, if a hospital is successful at reducing its unit costs, ancillary use per day, or length of stay for inpatient cases, that hospital is allowed to incrementally increase its unit charges so that the revenue it receives per case, on average, is equal to its preestablished charge-per-case target.

That approach also works to align the incentives of hospitals and payers that actively engage in utilization review. Payers are permitted to realize a majority of savings through lower per patient payments to the hospital—savings that are only partially offset by the hospital's ability to raise its rates to reach its charge-per-case target.[38]

The approved unit rates and predetermined charge-per-case constraints for each hospital are updated each year by the market basket index, which accounts for the inflation of input prices. Over time, the HSCRC also added amounts for new technology, offsets for expected productivity improvement, and hospital-specific adjustments for relative efficiency and performance on the HSCRC's quality-based incentive programs (Murray 2009).[39]

Another important feature of the Maryland system has been the use of a volume adjustment system to help reduce the incentives for hospitals to unnecessarily increase service volumes. In the early days of rate setting, the volume adjustment was structured to capture the incremental revenue in excess of hospital variable cost. Over time, however, the controls were loosened, leading eventually to large increases in hospital admissions and avoidable readmissions.

One of the unique features of the Maryland rate setting system is the method used to finance hospital uncompensated care—that is, bad debt and charity care. Unlike New Jersey, which "passed through" all reported bad debt, the HSCRC has recognized only reasonable magnitudes of free care and bad debt in the rates of each hospital. HSCRC uses a pooling mechanism that allows it to equalize the markup for uncompensated care without disadvantaging hospitals that treat disproportionately high numbers of uninsured patients. The all-payer feature of the system, made possible by the Medicare waiver, has allowed for an equitable sharing of those capped levels of hospital uncompensated-care costs.

Payment Evolution

As noted, the broad statutory language gave the HSCRC considerable, flexible authority to evolve and improve its payment methods over time, which enabled it to respond to new data and changes in market dynamics. HSCRC has used specific authority to establish alternative and experimental methods of rate determination to improve efficiency, promote quality, and create innovative payment arrangements, including (1) its hybrid case-mix adjusted per case constraint system, called the "guaranteed inpatient revenue" system; (2) a screening system that compared the relative efficiency of hospitals in various peer groups; (3) the uncompensated-care pooling mechanism, which equalized the magnitude of uncompensated-care funding in each hospital's rates; (4) a global budget system for rural hospitals that was similar to the revenue caps placed on hospitals in Rochester and the Finger Lakes area in New York; (5) an admission-readmission-based episode payment approach; and (6) a set of incentive-based quality programs. Those programs included (1) a value-based purchasing initiative similar to Medicare's program that provides financial incentives to promote the adoption of evidence-based process measures and improved patient satisfaction ratings, and (2) a hospital-acquired conditions initiative that provides incentives for hospitals to reduce the frequency of 65 categories of hospital-acquired conditions. The HSCRC's extensive and expanding quality-based payment initiatives represents the commission's interest in the need to improve the overall value of hospital care being delivered in the state (Calikoglu, Murray, and Feeney 2012).

The HSCRC also used its authority to review and approve alternative payment arrangements, including fixed per episode payments and capitation, entered into between Maryland hospitals and insurers, including managed care companies, in the 1990s. That authority allowed for bundled payment, including physician fees, and capitated payment arrangements between hospitals and managed care companies, with the requirement that the negotiated price be achievable through real reductions in utilization by care management, as opposed to arbitrary discounts to HSCRC-approved unit charges.

The commission believed that those arrangements could motivate hospitals to reduce costs by managing care more effectively. Although the commission allowed those types of arrangements, it steadfastly prohibited any discounting from HSCRC-approved unit rates. In general, the HSCRC and the hospital industry in Maryland viewed excessive discounting—below reasonable cost—as destabilizing and unnecessary. The view was that true systems of managed care could be successful under the HSCRC's system through collaborations between insurers and hospitals with the goal of promoting effective care management arrangements (McDonough 1997).

In 1976, as rate setting was beginning, the cost of a Maryland hospital admission was approximately 25 percent higher than the national average cost per case. By 1993, Maryland cost per admission was more than 11 percent lower than the US average cost per case. During much of that period, Maryland's growth in per capita hospital expenditures was also lower than the national average, owing largely to the combined incentives of the HSCRC hybrid per case and volume adjustment systems (McDonough 1997).

The Maryland system was, and continues to be, the most equitable payment system in the United States. The inherent equity and fairness of Maryland rate setting is characterized by (1) the system's regulation of hospital markups of charges over cost (Maryland has, by far, the lowest hospital markups in the nation);[40] (2) Maryland's hybrid charging and constraint system, which caused individual patients to pay itemized charges pertaining to the inpatient or outpatient services used in the course of their own treatment; and (3) the equitable financing of reasonable levels of hospital uncompensated care and graduate medical education across all patients and payers.

However, as was the case in other rate setting states, beginning in the early 1990s, the HSCRC shifted its policy focus from cost containment to an overemphasis on the desire to bolster the profitability of Maryland hospitals. That shift was a response to the eroding financial performance of hospitals from increases in input costs resulting from nursing and allied health personnel shortages and other factors. A number of changes in HSCRC policies in the early 1990s injected a significant amount of additional revenue into hospital rates, which improved hospital profitability dramatically.

During that period, approved rates proved to far exceed needs and costs. Hospitals responded by agreeing to bank (or hold in abeyance) significant proportions of their approved-rate annual rate increases in an effort to maintain a competitive rate structure so that they would remain attractive to managed care companies. By 1996, the total amount of banked revenue in the system exceeded $500 million, which represented about 8 percent of total system revenue. Hospital profit from operations averaged about 5 percent, a dramatic increase from average profits of 1 to 2 percent over the years 1978–92.[41]

More generous hospital payments also compromised the state's Medicare waiver test performance.[42] In response, in 1995, the HSCRC began reducing allowed annual hospital rate increases and, in 1996, it eliminated hospitals' total banked revenue in one fell swoop. In 2000, after several years of changes to the HSCRC's rate methods, and motivated by the need to scale back hospital revenue growth, the HSCRC and the industry collaborated on a rate redesign effort. The intent of that redesign

was to make the system of providing annual updates more streamlined, predictable, and in line with growth trajectories necessary to continue to pass the Medicare waiver test.

In the process, the industry requested removal of the HSCRC's longstanding volume adjustment system, the stringency of which already had been greatly diluted since the early 1990s. In response, because managed care was still very strong in Maryland at that time, the HSCRC thought that HMOs would continue to be effective in restricting unnecessary hospital utilization growth, which would permit them to accede to the hospital industry. The HSCRC eliminated the volume adjustment altogether in exchange for three years of guaranteed annual rate updates that were below market basket inflation at the time.

However, following the implementation of that new system in 2001, Maryland hospital volumes for inpatient admissions and for all outpatient services began to grow at extremely rapid rates. During the period 2001–08 admissions in Maryland grew at 2.4 percent per year, compared to only 0.8 percent in Maryland in the previous decade and approximately 1 percent per year nationally during those years. Similarly, outpatient volumes in Maryland grew 4.7 percent versus outpatient volume growth in the state of 3.4 percent per year the previous decade. Correspondingly, total hospital operating cost, which had grown at an average annual rate of 4.8 percent from 1990 to 2000, increased to an average annual rate of 8.4 percent from 2001 to 2008 (Kalman et al. 2014). That behavioral response to increased "profits" and cash flow is consistent with the behavior of nonprofit hospitals nationally (Stensland, Gaumer, and Miller 2010).

Although hospital profitability did improve slightly over that period, the rapid increase in hospital revenues seem to have been matched by large increases in operating costs—in particular, associated with the growing subsidization of physician practices and large increases in capital expenditures associated with a rash of CON-approved building projects (Kalman et al. 2014).

In 2008, the HSCRC staff convinced its leadership to restore the previous volume adjustment methodology, which provided hospitals with 85 cents on the dollar for volume increases above baseline. In addition, the HSCRC used its experimental rate setting authority to establish more fixed payment arrangements for a majority of Maryland hospitals. In particular, the HSCRC negotiated global budgets, referred to as "total patient revenue" (TPR) arrangements, with 10 rural hospitals in the state. Those hospitals were ideal for the implementation of global budgets because, like the hospitals in Rochester and the Finger Lakes area, they served relatively self-contained communities that had patient populations logically mapped to each hospital.

The global budgets worked like shadow capitation payment arrangements, in which a hospital's overall revenue was capped at the previous year's level and trended to subsequent years by (1) market basket inflation, (2) a factor to account for demographic changes of the area population, and (3) some additional funding to assist the hospital in developing the necessary infrastructure to implement care management and coordination strategies. TPR arrangements were early examples of population-based payment in that they provided hospitals with a guaranteed revenue flow to care for a geographically defined population. The fixed budgets also gave hospitals strong incentives to reduce unnecessary or marginally useful hospital services. Over time, the TPR hospitals have generally produced impressive reductions in admissions, readmissions, and emergency room visits, along with improved cash flow and profitability.[43]

The HSCRC also modified its case-mix adjusted charge-per-case constraint system to include all-cause readmissions within 30 days as part of the per episode standard. Unlike the Medicare readmission reduction program, which covered only five diagnosis categories and penalized hospitals for what were determined to be excessively high Medicare readmission rates, the HSCRC Admission-Readmission Revenue (ARR) methodology applied to all-cause readmissions and imposed a case-mix adjusted, standard, bundled Admission-Readmission Charge Per Episode (ARR-CPE) target for each hospital that voluntarily opted for the ARR system (31 of the state's 46 hospitals participated in the program).

The program effectively provided each hospital with a guaranteed amount of revenue per admission-readmission episode. Hospitals that were able to reduce their readmissions relative to historical levels were guaranteed their ARR-CPE amount, and they were allowed to reap the savings associated with readmission reduction efforts. However, hospitals that had readmissions in excess of what was allowed by those constraints—established based on each hospital's own historical experience—would not receive any additional revenue. Thus, the program operated much like a warranty system, which measured a hospital's readmission performance against its own historical record. That approach also addressed some of the issues Medicare has faced in the implementation of its readmission program, including the perceived disfavoring of safety-net hospitals (Berenson, Paulus, and Kalman 2012).[44]

In addition to those changes—and in response to the efforts of Medicare's Recovery Audit Contractor initiatives, which were aimed at identifying and denying payment for short-stay Medicare cases that were admitted but could have been treated on an outpatient basis—the commission changed its policy with regard to so-called observation cases by removing them from the charge-per-episode system. In response to those changes, hospital admissions in Maryland began to decline quite rapidly.

Program Performance and the Need for Change

Those efforts significantly curtailed the growth in per capita hospital expenditures—primarily through reduction in admissions and outpatient encounters—and as a result, Maryland's average charge per case started to increase rapidly. In 2011, in response to significant state budget deficits, the state also legislated a 3.4 percent Medicaid provider tax (an add-on) to the hospital rates paid by all-payers, including Medicare. That assessment, along with the other changes designed to reduce hospital admissions and readmissions, again eroded the state's performance on the Medicare waiver per case payment growth test, and the HSCRC projected that the state was on course to fail the test by 2013.

The changes that the state initiated between 2008 and 2011 were designed to position the rate setting system to seek approval from the CMMI for a revised per capita waiver test and a system of global hospital budgets for all Maryland hospitals, which would help promote a community-based approach to hospital care and cost containment. Hospitals within fixed global budgets are free to engage in care management and other activities that reduce the use of unnecessary hospital admissions, readmissions, imaging, and other ancillary and outpatient services.

The implementation of a number of quality-based, pay-for-performance initiatives in the period 2008–11 was intended to encourage hospitals to simultaneously work to maintain or improve the overall quality of care they provided as they faced stronger incentives to restrict unnecessary services under the new arrangements. With the passage of the Affordable Care Act in 2010, which contained a provision that granted the CMMI the authority to negotiate all-payer demonstration waivers, the HSCRC began active discussions with representatives from the Centers for Medicare & Medicaid Services (CMS) and the newly formed CMMI regarding the potential for a revised waiver arrangement for the state.

With the system poised to possibly fail the waiver test and lose the significant additional funding from Medicare and Medicaid, which was estimated at approximately $1.5 billion per year for both inpatient and outpatient services,[45] the HSCRC began negotiating with the CMMI in 2012 for a new waiver. The revised waiver focused on limiting the growth in hospital expenditures for all-payers per capita and improving the overall value of the care provided by Maryland hospitals.

Chapter 5. Maryland's Model Agreement with the CMMI

As recounted earlier, rapid increases in hospital volumes from 2001 to 2008 undermined the overall cost containment success of Maryland's all-payer hospital rate setting. Given substantial increases in per capita hospital costs, in retrospect it is clear that despite the commission's focus on controlling growth of hospital cost per case, the HSCRC was not paying enough attention to the overall affordability of the system.

Policy changes put in place by the HSCRC to reduce hospital incentives to increase volumes, along with other factors (such as the 3.4 percent state add-on assessment on hospital rates to reduce the state's deficit), led to rapid erosion in the rate-of-growth test in limiting Maryland Medicare payments per case that the state needed to pass to retain its original Medicare waiver. Loss of that waiver and transition back to the national Medicare payment systems would have substantially reduced federal payments to Maryland hospitals, which was estimated by various stakeholders to be about $1.5 billion per year.

That potential financial hit was the catalyst that strongly motivated the state and its key stakeholders to apply to the CMMI for a substantially revised waiver agreement. The new waiver emphasized the adoption of innovative payment structures that were designed to achieve CMS' three-part aim: improved quality of care at lower cost with improved health of broad populations of patients. The focus of national attempts at payment reform in recent years has been toward the development of more fixed and population-based approaches.

As the nation's only remaining all-payer hospital payment system, Maryland afforded CMS and the CMMI a unique opportunity to demonstrate that a hospital payment system with properly designed and broadly applicable incentives can be retooled to go beyond setting payment rates. Such a system can limit the growth in per capita hospital expenditures, promote initiatives to improve hospital quality, and in other ways increase the value of care delivered by Maryland hospitals. Maryland's new demonstration covers approximately $16 billion in annual hospital payments and provides a clear test of the ability of population-based payment to control per capita hospital expenditures through prospectively established budgets covering all payers.

As discussed, the ACA amended Section 1115A of the Social Security Act. The amended section authorizes CMMI to test innovative payment and service delivery models that have the potential to

reduce Medicare, Medicaid, or the Children's Health Insurance Program (CHIP) expenditures, while maintaining or improving the quality of care. The ACA lists models that the CMMI may consider testing, including "allowing States to test and evaluate systems of all-payer payment reform for the medical care of residents of the State, including dual eligibles."[46]

After a year of negotiation, the CMMI approved Maryland's application for a revised hospital payment approach that included Medicare for a five-year period, beginning January 1, 2014. In agreeing to the new waiver, Maryland had to demonstrate (1) legal authority to set hospital rates for commercial payers and (2) the commitment of the Maryland Medicaid program to participate in any new payment arrangement stipulated by the new demonstration.

The central idea of the demonstration was to test the ability of hospitals to control the volume of hospital services provided by eliminating fixed-rate payment arrangements that were used in Maryland and by most other payers, including Medicare, in favor of prospectively established global budgets covering all payers. In addition, before the end of the third year of the five-year demonstration period, the state may submit a plan for a second phase of the demonstration, including a proposal for an expansion of new payment approaches to extend beyond hospitals to include all Part A and Part B Medicare services for Maryland residents. In essence, phase II of the demonstration was intended to address most Medicare spending, not just hospital spending, in approaches commonly labeled as population-based payment or global payment. Part D services for prescription drugs are not included.

As noted in Chapter 2, in the new Maryland all-payer demonstration, hospitals in the state continue to be paid by each payer (public and private) on the basis of Commission-approved itemized charges. However, the Commission changed the unit of constraint from an approved limit on a hospital's average, case-mix adjusted revenue per case to a limit on a hospital's overall annual budget. Under the new system, the amount of revenue the hospital is able to charge and collect throughout the year must equal its approved global budget, regardless of the number of patients it treats or the number and types of services it provides. If the hospital successfully reduces any type of hospital service provision, such as the number of unnecessary lab tests, imaging services, length of stay, admissions, readmissions, and outpatient services, it is allowed to raise its unit charges so that the product of its units of service multiplied by its average charge per unit is in line with its preapproved global budget constraint. Again, if the hospital does not successfully manage the use of its inpatient and outpatient services—and volumes increase in a given year—it is required to reduce its unit rates to bring its total revenue in line with its approved budget. In that way, the approved global budget acts to limit the hospital a fixed amount of revenue each year but also guarantee that amount.

Under the terms negotiated with the CMMI for phase I of the waiver, Maryland hospital revenue under the demonstration's model agreement between CMS and Maryland is now subject to two specific per capita constraints: (1) a limitation on the rate of growth of Maryland hospital revenue per capita to 3.58 percent annually, reflecting the 10-year average annual growth in Maryland's gross state product (GSP); and (2) a limitation on the growth in hospital expenditures per Maryland Medicare beneficiary to 0.5 percent less than the national rate of growth. Achievement of the latter limitation would save the Medicare program an estimated $330 million over the five-year period of the model relative to growth rates in Medicare hospital payments per capita nationally.[47]

Although a number of states—most prominently, Massachusetts—have established goals of limiting health expenditure growth to the growth of the state's economy, only Maryland, with its all-payer, rate setting enforcement authority, is positioned to achieve this that result on a sustained basis (Rajkumar et al. 2014).

Additionally, the model was structured to encourage the state to expand its previous experimentation with population-based payment models and incentive programs to promote hospital quality of care. Accordingly, Maryland was required to transition at least 80 percent of hospital revenue to population-based payment methods such as the total patient revenue (TPR) approach used for rural hospitals; in its demonstration, Maryland is extending similar global budget payment arrangements to suburban and urban hospitals.[48]

The state is required to maintain or augment its quality-based, pay-for-performance programs that cover hospital-acquired complications, readmissions, patient satisfaction, the use of evidence-based process measures, and patient safety measures to be as least as effective as similar measures implemented by Medicare nationally. The state is also required to reduce Maryland Medicare readmissions to be at or below the national rate by the end of 2018, the final year of the model agreement. The rate is now 17.1 percent, which is 8.2 percent higher than the national Medicare readmission rate of 15.8 percent in 2013.[49]

Finally, the agreement articulates triggering events that could terminate the model, such as failure to meet the per capita limits or the quality improvement requirements, but it allows the state to submit corrective plans that may be approved at the discretion of CMS. If terminated or not extended, the agreement allows a two-year period for Maryland hospitals to transition to Medicare's inpatient and outpatient prospective payment systems and the standardized payment levels applied to all other hospitals nationally. CMS is closely monitoring the activities of the HSCRC and Maryland hospitals as they respond to the new incentives and is implementing a rigorous overall evaluation of the model.

The is early evidence to suggest that the Maryland Model Demonstration is meeting the key cost containment goals established by the CMMI under the new waiver agreement. During the first performance year (calendar year [CY] 2014) of the Maryland Model Demonstration, the HSCRC reported that the state outperformed its all-payer per capita growth limitation by a substantial amount. All-payer hospital spending per Maryland resident increased by only 1.47 percent in CY 2014 versus an imposed limit of 3.58 percent, which as noted, equaled the 10-year average annual increase in Maryland GSP over the period 2004–13. In 2014, Medicare's per capita hospital costs grew 1 .07 percent nationally and decreased 1.08 percent in Maryland (Patel et al. 2015). These impressive expenditure growth trends were achieved while hospital profits in Maryland showed substantial improvement (e.g., per the HSCRC annual disclosure reports, Maryland hospital total operating margins increased from 1.32 percent in FY 2013 to 3.06 percent in FY 2014—a period that covered the first six months of the first year of the Model Demonstration). Further, a recent HSCRC analysis showed that Maryland was able to reduce the rate of hospitalization for "potentially preventable conditions" 23.3 percent between 2013 and 2014 (Patel et al. 2015).

Implications of the Approach

The approach, if successful, could have significant implications for national payment policy:

1. It represents an important attempt to reintroduce mechanisms to discourage unnecessary hospital volume growth, extending beyond readmissions by eliminating the volume-inducing incentives of fixed-rate payment arrangements. The Maryland experience may be helpful in addressing the need to alter payment approaches that reward providers for providing marginal or unnecessary services.
2. The model also will attempt to take the incentives a step further by promoting population-based health with supportive payment incentives for all payers. The Maryland agreement could provide CMS with strong evidence that hospital costs can be effectively controlled, while hospitals remain financially stable under growth rates that approximate national Medicare payment growth rates and all-payer payment growth rates that approximate GDP growth.
3. Linking the growth to Maryland's gross state product (GSP) could represent another notable policy achievement. Since 1995, health care expenditures nationally have grown about 1.7 percent faster per year than the US gross domestic product (GDP), which has contributed greatly to the growing need to reduce health care cost pressures on the economy and on state and federal budgets. Given the recent slowdown in hospital cost growth to all payers nationally,

to demonstrate its unique effect on cost growth, Maryland will likely need to grow much slower than this GSP limitation (Hartman et al. 2014).

4. Finally, and perhaps most significantly, the Maryland approach also can address an inherent contradiction in the design of Medicare's Shared Savings Program (SSP) ACOs. Those programs seek to reduce unnecessary services but largely recruit providers who, under fee-for-service or other volume-based payment approaches, are still rewarded for producing more units of service. Thus, to be successful in an SSP, providers must overcome the powerful financial pressure of the Medicare IPPS, OPPS, and Physician Fee Schedule payment mechanisms pushing the opposite way in standard payment approaches. By contrast, in Maryland, hospital incentives resulting from global budgets will be better aligned with the incentives of ACOs, HMOS, and other at-risk entities with incentives to seek out the high-value hospital care for their beneficiaries. Global budgets in Maryland may provide the fertile soil from which more market-oriented at-risk entities can develop and help redirect care to high-value hospitals and health systems.[50] In this sense, it is perhaps ironic that rate regulatory strategies in Maryland may well promote the development of a competitive market among ACOs, HMOs, MA plans, PCMH programs and other at-risk or shared savings programs in seeking to steer patients to high-value hospitals.

Challenges the Demonstration Will Face

First, Maryland hospitals face significant risk in this arrangement for two reasons: (1) the use of a fixed, unwavering number for the all-payer per capita growth limit of 3.58 percent could place unacceptable pressure on hospitals if underlying hospital input cost inflation escalates (to, say, 5.0 percent per year, and the per capita growth rates nationally in turn jump to, say, 7.0 percent per year); and (2) an already-tight Medicare hospital expenditure per beneficiary growth test could become even tighter if the federal government seeks additional entitlement or payment limitations that more severely limit Medicare spending for hospitals.

Conversely, the fixed per capita growth rate may have very different implications if hospital factor cost inflation remains low and the per capita growth in hospital expenditures is limited to an amount that approximates Maryland's 3.58 percent cap. In that case, if the HSCRC allows Maryland hospital rates to rise to the limit of the 3.58 percent cap, the demonstration would be operating at or near the US average cost growth per capita and, arguably, demonstrating little of interest. In that case, one of the challenges of the demonstration would be for the HSCRC to successfully project the US growth in

hospital costs per capita and to set hospital rates so that the demonstration (1) achieves substantial savings relative to the US averages, and (2) differentiates itself from performance in the rest of the country.

Second, although the HSCRC has been extremely successful in convincing all hospitals to adopt hospital global budget constraints in the demonstration's first year, the commission may encounter operational challenges. Crafting methodologies that appropriately adjust hospital budgets for legitimate—and perhaps desirable—changes in patient referral patterns across hospitals, while at the same time maintaining the important incentives of global budgets to reduce unnecessary hospital service use and waste, is a difficult task. However, such market shift methodologies were not a part of the Rochester or Finger Lakes systems. It may well take time for hospitals to fully understand and react to those incentives and the restrictions and dictates of supplementary policies developed by the HSCRC.

Third, the HSCRC will encounter other operational and internal political challenges as it attempts to balance the sometimes competing interests of academic medical centers, larger urban and suburban tertiary facilities, and the smaller community and geographically isolated rural hospitals in the state. The demonstration does not prescribe payment policies that cover indirect medical education (IME), direct medical education (DME), funding of certificate of need projects, disproportionate share adjustments, or the calculation of productivity adjustments in hospital rate making. Many observers of the hospital industry believe that the Medicare IPPS and OPPS policies work to the advantage of certain groups of hospitals. The HSCRC therefore faces substantial challenges in its efforts to set global budgets equitably across the various classes of Maryland hospitals.

Fourth, there is the concern that operating under fixed and guaranteed fixed budgets may cause hospitals to be complacent about competing for patients or providing necessary services. However, there are a number of reasons why those concerns should not afflict the Maryland Model Demonstration:

1. There was no evidence of hospitals inappropriately restricting access to needed hospital care in the experience of the original TPR global budget hospitals in Maryland or in the Rochester and Finger Lakes regions during the more than five years of this demonstration.

2. Physicians and patients still have strong incentives for hospitals to maintain adequate volumes.

3. The HSCRC is willing to downsize individual hospital global budgets if occupancies drop precipitously or to increase global budgets, given evidence of substantial increases in hospital referrals related to the redirection of patients by at-risk entities (such as HMOs, ACOs, MA plans, or shared savings patient-centered medical home—PCMH—programs). Those possibilities also will keep hospitals alert to the need to position themselves as providing the highest-value hospital care.

Finally, it will be very difficult to break the revenue-driven hospital culture that is strongly committed to system expansion, volume growth, and strategies designed to capture additional market share. Although the HSCRC possesses powerful rate setting tools, it may be reluctant to use those tools to their fullest extent to substantially outperform both the all-payer and the Medicare per capita payment tests. Furthermore, because the hospital global budgets do not include physician payment, the incentives of hospitals under global budgets to redirect and reduce volumes are inconsistent with the volume-inducing incentives of fee schedule–based payment.

Without an ACO or other special arrangements, such as a hospital-sponsored Medicare Advantage plan, the hospitals cannot make incentive payments to their attending staff to reduce Medicare services volumes. Such payments are prohibited under the Stark laws, the antikickback statute, and the Civil Monetary Penalties Act.

Those circumstances pose great challenges for the HSCRC in the context of phase II of the demonstration, in which the HSCRC must operate under limitations governing all Part A and Part B Medicare expenditures in the state. In addition, the HSCRC does not possess a method of assessing (and rewarding or penalizing) individual hospital performance on Part A and Part B expenditures because of the absence of a system for attributing Medicare beneficiaries to specific hospitals. The inability to assess individual hospital performance in Phase II could create a collective incentive, which will dilute the incentives of individual hospitals to invest in the necessary and comprehensive (beyond just managing hospital utilization) care management initiatives needed to control Part A and Part B expenditures.

If the United States experiences a reignition of runaway per capita cost growth and Maryland is able to continue to meet the spending limits imposed by the Maryland model, the program will clearly distinguish itself as an effective and sustainable approach to cost containment. If Maryland's model proves successful, the CMMI should be receptive to proposals from other states to take more accountability for the total cost and quality of care. The Maryland model can serve as a template or

springboard for creative efforts by other states to address an economically dominant provider industry and ever-rising health expenditures.

Chapter 6. An Appraisal of Rate Setting's Performance

The question of whether state-based hospital rate setting was a success or a failure was the subject of considerable discussion and debate in the late 1980s and 1990s (Thorpe 1987; Anderson 1991; McDonough 1997). One obvious sign of failure was the abandonment of rate setting in favor of market-based approaches in all but two states (Pauly and Town 2012). However, with the exception of a few heavy-handed and overly intrusive systems, state-based rate setting proved to be a highly effective cost control mechanism. It limited unwarranted price and volume increases when rate mechanisms included a method for adjusting volume growth that developed in response to rate limits. The state-based systems achieved those results while at the same time meeting other policy goals, such as improving payment equity, funding uncompensated care, and providing financial stability for hospitals.

Cost Containment

The preponderance of empirical research indicates that since their introduction in 1975, mandatory rate setting programs have generated savings and reduced the trend in hospital expenditures over sustained periods. The most obvious period of success was in the late 1970s and into the late 1980s, when the programs were effective in limiting per diem, per case, and per capita hospital expenditures, although per capita expenditure control seemed to have been the weakest. A General Accounting Office (GAO) study in 1992 also found evidence that improved cost performance in the hospital sector does not result in spillover increases in spending by nonhospital providers (GAO 1992). In fact, studies suggest that spending for physician services was lower in states with rate setting (Anderson 1991; Coelen and Sullivan 1981; Morrisey, Sloan, and Mitchell 1983; and Schramm, Renn, and Biles 1986).

A 1988 study comparing the cost-containment performance of all four all-payer rate setting states and California—a state that did not adopt rate setting but rather a more market-based delivery model—and the rest of the nation found a significant reduction in expenditure growth. Between 1982 and 1986, compared to a control group of hospitals in 43 other states with neither all-payer rate setting nor an aggressive market-based strategy, rate setting programs reduced hospital expenditure growth 16.3 percent in Massachusetts, 15.4 percent in Maryland, and 6.3 percent in New York. California's market-

oriented, cost-control approach reduced growth rates 10.1 percent (Robinson and Luft 1988). A more recent analysis supports the results of those earlier reviews (Atkinson 2009).

Those successes would have been greater if the constraints on prices had not been partially offset by service volume responses to the incentives in the different systems. There is strong evidence that per diem systems resulted in large increases in hospital length of stay and more limited evidence that per case systems experienced increases in admission rates (Kalman et al. 2014; Schramm, Renn, and Biles 1986; Salkever and Steinwachs 1988). That volume response plagued the long-standing Maryland program during various periods in its 39-year existence.

The evidence demonstrates that it is not sufficient just to limit unit rates, and it has given rise to the global payment approach in the Maryland demonstration. The rate methods developed must give hospitals incentives to also control the overall volume of service. That kind of volume response to all-payer rates has been seen also in a number of European countries that have recently adopted DRGs as the predominant payment method for inpatient care. Those changes have given rise in some countries to combining activity-based payment, using DRGs with global budgets as an overall volume constraint (Busse et al. 2011).

Equity, Fairness, and Stability

All-payer rate setting systems have also been recognized for the development of inherently fairer payment systems that tended to "level the playing field" for hospitals, regardless of where they are located, the populations they serve, or other operating circumstances they face. That accomplishment results from provisions to pay for the care of uninsured or underinsured individuals and to ensure contributions from all payers for other nonpatient-care activities, especially graduate medical education (Davis et al. 1990). In addition, the Maryland system included adjustments to recognize additional costs associated with the treatment of large proportions of indigent patients caused by the lack of access to needed primary or preventive care services, lower levels of compliance with prescribed medical treatment plans, or lack of social support services in low-income neighborhoods.

The literature on all-payer systems also demonstrates that, with the possible exception of New York, rate setting has generally had a positive effect on hospital financial stability and viability (Davis et al. 1990; Hsiao et al. 1986; Thorpe 1987). Maryland has been recognized by independent sources for its year-to-year stability and narrower distribution of earnings of individual hospitals compared to hospitals nationally (Murray 2009). In the Rochester and Finger Lakes demonstrations, the global

budget rate structure, coupled with the system of interim pro rata payments by public and private payers, provided a very stable and predictable cash flow for hospitals. The global budget incentives and the inherent predictability of those systems allowed the Rochester hospitals to significantly improve their profitability over the period 1980–85 (Block, Regenstreif, and Griner 1987).

Although they directly supported hospitals operating in indigent areas, those systems did not necessarily protect inefficient and unnecessary hospitals from closure. For instance, the Maryland rate setting program provided incentives for larger hospital systems to close high-cost member hospitals by allowing those systems to increase their rates to pay off outstanding public body obligations on the balance sheet of the inefficient facilities. Such rate action was justified based on the cost savings that accrued to the overall system through the redirection of patients to other lower-cost facilities. From 1996 to 2007, the Maryland system successfully closed seven hospitals (of a total of 53) through the use of those and other rate setting incentives.

Another goal of most all-payer rate setting programs was to prohibit or reduce the ability of hospitals to price discriminate. In general, all of the rate systems achieved greater equity in payment by reducing or eliminating the differential payment levels between Blue Cross and other commercial payers and by prohibiting excessive markups of charges over cost. In the rest of the country, hospitals have continually increased their markups so that, according to data from the American Hospital Association annual statistical guide, average hospital markups nationally are well in excess of 200 percent above cost, whereas Maryland hospital markups across all payers have remained approximately 22 percent above cost (Murray 2013).

Likewise, the West Virginia rate setting program seems to have limited hospital markups. An essential component of that system is the establishment of a floor on payment levels; that is, hospitals and payers are prohibited from negotiating payments that are below a hospital's average reported costs. That requirement helps protect against commercial payers attempting to use their market power to negotiate rates below hospital cost, a circumstance that proved to be highly destabilizing in rate setting states that allowed managed care companies to negotiate unlimited discounts.

Uninsured Access to Care

An important feature of all-payer rate setting systems was the inclusion of provisions to pay for the care of uninsured or underinsured patients. The systems accomplished that goal through rate mechanisms that spread the cost of uncompensated care more equitably across all payers, including, in most cases,

public payers. That feature was the primary reason why hospitals strongly supported the original rate setting legislation in Maryland in 1971, and it has been a key reason why Maryland hospitals have continued to support the system (Murray 2009). Studies on the New York and New Jersey systems find that they increased access to care for the uninsured by improving the financial strength of the hospitals that serve the largest proportions of those patients (Hsiao et al. 1986; Thorpe 1988).

One weakness of the New Jersey system of uncompensated care financing, however, was that it failed to establish reasonable limits on the amount of free care and bad debt passed through in rates and surcharges. By contrast, Maryland and most other states established reasonable standards for how much uncompensated care hospitals would be expected to experience. In that way, they provided incentives for those hospitals to be efficient in their credit and collection efforts from patients who could afford to pay some or all of their bills.

Quality and Technology Diffusion

Although the literature is clear on the question of the effectiveness of rate systems to control unit prices and—to a lesser extent—per capita hospital costs, the effect of rate setting programs on quality of care in the 1980s is mixed (Shortell and Hughes 1988; Smith, McFall, and Pine 1993). Most historical studies have been limited by measurement issues and methodological problems, and those studies generally have not found a consistent relationship between the presence of a rate setting program and quality of care (Anderson 1991). In more recent years, the quality-based payment methods adopted by the Maryland rate program, which promotes improved use of evidence-based processes of care and reductions in hospital-acquired conditions and readmissions, seem to have led to quality improvements equal to or exceeding those of hospitals nationally, which are a result of similar quality-improvement incentives in the Medicare IPPS (Calikoglu, Murray, and Feeney 2012). For more information, see the HSCRC website at http://www.hscrc.state.md.us/.

Rate setting has slowed the diffusion of medical technology and higher-end services, such as cardiac surgery programs and intensive care units. A study focusing on a random sample of hospitals nationwide determined that in states with mandatory rate setting systems, complex services were diffusing at a rate that was about 75 percent of national rates (Cromwell and Kanak 1982). Given the tendency of hospitals to invest in duplicative technologies to attract physicians and increase market share (thereby contributing to a "medical arms race"), slowing technology diffusion may be desirable and might serve the function for which Certificates of Need are designed.

Ability to Accommodate Market-Based Initiatives

A key issue that was debated extensively in the literature in the 1980s and early 1990s was whether rate setting was compatible with delivery system innovation and growth of managed care (Ginsburg and Thorpe 1992). Contrary to predictions by some health policy experts that rate regulation would interfere with market-based activities, such as managed care, the rate setting states of Maryland, Massachusetts, and New York all experienced rapid growth in managed care in the 1980s. By 1992, all three were in the top 10 states in managed care penetration rates nationally. The Rochester area also experienced very high penetration rates of managed care during the course of that demonstration. In New Jersey, however, the rate setting system created perceived difficulties for HMOs, and managed care penetration rates remained low while rate setting was in effect (Iglehart 1982).

A debate remains over whether or not it is necessary for rate setting to allow HMOs and other managed care plans to freely negotiate with hospitals over prices. New York and Massachusetts allowed HMOs to negotiate, whereas Maryland and New Jersey did not, although anecdotal evidence in New Jersey indicates that the use of illegal discounts was commonplace. In systems that seek to spread the cost of socially desirable activities across all payers, exempting some payers from rate setting would lead to a less equitable system. Discounting by HMOs in New York and Massachusetts did produce uneven treatment of HMOs relative to other payers, which contributed to the financial instability of Blue Cross plans and undermined the objectives of stability of hospital financing and equity in payment. We argue that exemptions to allow large managed care plan discounts distract attention from efforts to reduce unnecessary hospital services and to shift care to more cost-effective ambulatory settings. Those managed care strategies could be highly compatible with most rate setting systems.

Finally, although the West Virginia rate setting program does not allow commercial insurers to negotiate payment levels below hospital cost, significant negotiation and discounting from approved charges is allowed. The system accepts varying degrees of market leverage, but it limits the results of those negotiations to a range between reported average cost and approved hospital charge levels. That approach stands in contrast to Maryland's system, in which the state's regulatory agency approves a set hospital rate that represents both a ceiling and a floor.

Regulatory Failure and Capture

As noted earlier, all of the rate setting states experienced some regulatory failure in the forms of (1) excessive complexity, which obscured the financial incentives of the system, undermined its cost

containment capability, and led to gaming by the hospital industry; (2) regulatory delays and gridlock; and (3) some degree of regulatory capture. Regulatory failure was most apparent in Massachusetts, New York, and New Jersey, where the rate setting systems become so complex that only a small group of regulators and hospitals fully understood how the systems functioned (McDonough 1997).

Although evidence of regulatory capture can be difficult to detect, likely cases of capture occurred with (1) the legislative end-run by Massachusetts hospitals to obtain legislative changes to rate setting methods to infuse more dollars into hospital rates in 1988, (2) the apparent inside dealings between hospitals and department of health rate setting staff in New York; and the New Jersey rate setter's decision to infuse over $1 billion into rates to deal with the 2,000 separate cost appeals filed by hospitals (McDonough 1997). In Maryland, the significant and excessive infusion of funding in the early 1990s, the scaling back and eventual elimination of the state's effective volume adjustment and the Maryland commission's tolerance for the excessive growth in hospital volumes in 2001–08 are perhaps, at the very least, examples of failures of regulatory independence and perspective.

The forces that seek to capture the regulator are ever present. The most effective systems strike an optimal balance between maintaining communication with the industry while maintaining a degree of political independence and regulatory distance. Maintaining that balance can be very difficult, given the existence of a hospital in every legislative district and the large benefits that hospital can realize by convincing regulatory staff to support a particular policy that benefits that hospital or group of hospitals.

For instance, in Maryland, industry "work groups" on methodology development and major rate setting decisions were established in the early 1990s to solicit both hospital and private payer input. However, that approach tends to be extremely time-consuming and made rate setting staff the focal point for attempts by hospital and payer lobbying to influence policy. That occurred, in part, because rate setting methods often are so complex that even informed commissioners, who in the Maryland system were only part-time volunteers, often found it very difficult to vote against the recommendations of their professional, full-time staff.

The process has also been criticized as affording the larger teaching hospitals and health systems with more opportunity to influence commission policy. The issues and methodologies debated in the work groups tend to have significant influence on the rate structures of those institutions. Thus, the entities tend to devote significant resources to the work group process and are always effectively represented in those groups.

Ability of Rate Setting to Develop Innovative Payment Methodologies

All rate setting systems modified their approaches to improve cost control, enhance payment equity, increase access to hospital care for the uninsured, and bolster hospital financial stability. Only Maryland, though, had sufficient flexibility resulting from its enabling statute to engage in a process of continuous evolution of payment methods, adjust to accommodate the growth of managed care, and eventually create innovative and more effective incentive-based payment structures. Innovations included volume adjustments (as described in Chapter 2); the development of expanded payment-constraint structures, such as admission/readmission episodes of care; a "packaged" outpatient payment system; and a number of apparently effective, pay-for-performance–based quality initiatives that emphasized (1) adherence to evidence-based processes of care and (2) reduction of hospital-acquired conditions and readmissions. As discussed earlier, Maryland remains a laboratory of experimentation in rate setting methods and techniques that are aimed at controlling unnecessary cost growth and promoting hospital quality.

Another key aspect of state-based rate setting systems was the use of volume adjustment systems to counteract the incentives that fixed-rate fee (such as per unit, per diem, or per case systems) FFS payment options provide hospitals for increasing volumes of service. In contrast to the conclusions of the academic literature on hospital fixed and variable costs, which have largely been based on regression analyses, most CFOs of medium- to large-sized hospitals believe that hospital variable costs are between 50 to 60 percent of average cost.

It is not surprising that hospitals then seek to increase admissions, readmissions, emergency room visits, outpatient visits, imaging, and clinical lab services. By doing so, they are able to enjoy additional significant marginal revenue and excess of marginal cost for those increased volumes. The opportunity to increase volume and to increase cash flow and profitability also explains the frequent use of volume-based contracting with their medical staff. Those contracts are usually based on relative value unit generation and provide bonuses to physicians that increase their billings.

The link between the type of payment system employee and the volume increases experience is fairly well documented in the state-based hospital rate setting experience. In the beginning years of rate setting in Maryland but before the use of per case constraints, the regulatory agency established itemized unit rates for each hospital and controlled the rate of growth of unit prices. In response to those constraints on the growth in unit rates, hospitals dramatically increased their units of service (for example, their use of ancillary services per day and length of stay). In states that used per diem payment

systems, such as the early New York payment system, hospitals dramatically increased their length of stay.

There is also evidence (particularly in Maryland but also in New York, New Jersey, and Massachusetts with their DRG payment systems) that shows that when hospitals are subject to per case limits, they focus their efforts on increasing admissions and readmissions (Kalman et al. 2014; Worthington and Piro 1982). Accordingly, all of the state-based, all-payer, rate setting systems (including the Rochester and Finger Lakes systems) understood the link between FFS payment incentives and the financial benefit to hospitals of increasing volumes. Those systems eventually included some type of volume adjustment system.

Lessons Learned for Public and Private Payers

The experience of state-based rate setting systems in the use of volume adjustment mechanisms could provide useful lessons for both federal and state payment policy about ways of either neutralizing or eliminating incentives for hospitals to generate unnecessary or marginal volumes. The use of volume adjustments or broad hospital bases of payment, such as global budgets, also can help align the incentives of hospitals with care coordination efforts of managed care plans and ACOs that bear financial risk.

Our observations regarding hospital fixed and variable cost proportions have implications for Medicare's current payment reform programs, including ACOs and penalties for high readmission rates. Because hospitals have high fixed costs that represent as much as 40 to 50 percent of the average cost, with the shared savings payment approach, the loss in Medicare payment associated with inpatient volume reductions will undermine a participating hospital's financial position. The loss can generate a reduction in operating profits that cannot be expected to be offset by relatively small savings sharing payments to the hospital. In short, the constituent members of a hospital-based ACO—the hospitals and their medical staffs, continuing to be paid by legacy payment incentives that reward volume of services—will tend to resist efforts to reducing services that can be avoided with good care coordination and greater adherence to appropriateness guidelines. Similarly, the financial penalties associated with high readmission rates may be less than the financial impact of reducing 30-day readmission rates, which may also produce a reduction in subsequent admissions. From a financial perspective, the hospital may be better off maintaining the flow of admissions and their revenue contribution to fixed costs.

As pioneered in some state-based rate setting programs, hospitals facing a symmetrical volume adjustment system that removes excess marginal revenue over marginal cost when volumes increase and that restores unfunded fixed costs when volumes decline will have financial interests and incentives focused on volume that are more aligned with the incentives of the ACO program and a modified approach to rewarding reduced readmissions. The use of rate controls and volume adjustments in state systems has been shown to be an effective per capita cost control system (Murray 2009).

Another rate setting mechanism of relevance for both public and private payment approaches relates to the methods used—in both state-based rate setting and the Medicare IPPS—to establish hospital-specific DRG rates. Initially, those systems derived base rates from each hospital's historical costs. However, that approach disadvantaged hospitals that had operated relatively more efficiently in the period leading up to the establishment of base rates. In response to those concerns, New Jersey and New York, as well as the Medicare IPPS, used a methodology that blended each hospital's historical cost per case with a state (or in the case of IPPS, regional and national) normative cost-per-case standard.

The blending of hospital-specific base rates with a normative standard was accomplished over three to four years, so, for instance, in New York in the first rate year, a hospital's standard base DRG rate reflected a blend of 75 percent hospital-specific costs and 25 percent statewide average costs. Over the next three years, the blend was 50–50 percent, 25–75 percent, and 0–100 percent, with the fourth-year rates then reflecting a full transition to the normative standard (Atkinson 2009).

That blending methodology is directly relevant for the current ACO program and the way CMS establishes ACO benchmarks. Blending methodology may provide a guide for how ACO benchmarks can be established so that they do not disadvantage (or discourage the participation of) ACOs with historically low base-year costs. Although within a state, rate setting strives to provide a uniform and consistent method for determining payment rates or global budgets, the experience and expertise gained across states that use varying approaches would identify valuable lessons for each other and for other payers that are grappling with similar issues.

Chapter 7. Final Observations and Recommendations

Despite the ACA payment reforms and the oft-repeated mantra of moving payment from volume to value, fundamental elements of our health care system remain largely unchanged. The health sector is still characterized by the predominance of fixed-rate payment incentives that fragment care and work against clinical management and care coordination efforts; a fragmented system of health care purchasers using disparate payment structures, often with inconsistent incentives; and a powerful provider sector that is more consolidated than ever before and that is able to exert more leverage in its negotiations with commercial insurers.

When we recognize the recent slowdown in health care in recent years, those factors are likely to jump-start what Vladeck and Rice (2009) described as our "massive engine for the redistribution of resources from employers, taxpayers and households to the organizations that provide health care goods and services."

Although insurers are also consolidating, there is little hope that what economists refer to as "bilateral monopolies" will produce the needed negotiating balance that would temper the so-called must-have providers' ability to negotiate rates that permit extravagant profits (for nonprofit hospitals, accounted for as retained earnings), whereas well-managed, "have not" providers that care for low-income individuals and are dependent on typically low Medicaid payments face difficulty surviving.

With insurer consolidation, the dominant insurer need not use its potential negotiating leverage to negotiate low provider payment rates. It merely needs to obtain the most favorable rates so that its much smaller competitors cannot effectively compete for business from employers and individuals. Lacking effective competition, the insurers can pass on high prices in premiums or increased costs for self-funded employers.

As noted at the outset of this report, some economies would address market failure directly, by aggressive antitrust enforcement, removal of a raft of entry barriers to competition, and loosening of other regulatory restrictions that were adopted to address market failure. Our view is that it is too late to expect antitrust to have more than a marginal effect on consolidation. After two major waves of mergers and acquisitions, the first during the second half of the 1990s and the second over the past few years, many provider markets are already highly concentrated to the degree that there is little role left for antitrust enforcement to prevent noncompetitive mergers.

We are also skeptical that most jurisdictions would have the political will to take on stakeholders that seek to preserve their privileged positions with aggressive policies to break down entry barriers, such as by removing scope-of-practice laws and long-standing quality and safety standards that effectively protect incumbents from successful competitors.

In that context, we suggest that major reforms to create well-functioning competitive markets have aspirational appeal. At the same time, we believe that health care remains different from most other sectors of the economy and defies the kind of pro-competitive approaches that work quite well in other sectors of the economy (Vladeck 1981). A basic reason why market power is greater in health care is that health insurance insulates consumers from the high prices charged by market-dominant provider systems (Havighurst and Richman 2011), whereas insurers lack the competition that would cause them to care much about the prices they set to pay providers.

To emphasize that health care is different is not to argue that government cannot make incremental progress in promoting better-functioning health care markets. Recently, a panel commissioned by the National Academy of Social Insurance produced a set of policy options for states interested, in particular, in incrementally improving their health care markets to address the issue of high and varying provider prices, as well as in identifying more regulatory approaches, including all-payer rate setting (NASI 2015).

The regulatory approaches in the NASI report—including all-payer, state-based rate setting—fall far short of a single-payer approach that would require a national commitment to major restructuring of the financing and delivery of health care in ways that the American public does not support. In contrast to a single-payer approach, all-payer rate setting would be conducted at the state level, and it would be crafted to conform to political cultures in the particular state. That situation occurred in the past, when rate setting emerged in a handful of states and local jurisdictions before being replaced by managed care (except in Maryland and West Virginia). All-payer programs create a consistent set of incentives for hospitals, allow for more equitable financing and treatment of patients under different insurance plans, and permit fair spreading of social costs, such as uncompensated care and graduate medical education.

The available, major alternative for those states willing to seek state action immunity from the application of antitrust laws is state-based rate setting. As we have shown, state-based rate setting has a positive record of being able to address what hospitals can both charge and receive in payment, and it can protect against the volume increases that are likely once prices are constrained. In addition, rate setting can help support some forms of market competition by limiting payment rate differences so that

insurers and providers can try to distinguish themselves in the marketplace by supplying higher quality, service, and the ability to direct care to the most appropriate site of service.

Most simply, state-based rate setting—all-payer or not—can effectively counter the continued price-discriminatory practices by often-monopolistic, dominant health care provider systems—which use their market power to raise prices—by establishing reasonable limits on what hospitals can charge and what consumers need to pay. MedPAC concludes that the all-payer margins of hospitals are at historic highs because of price increases to private insurers that are well above cost growth. That situation results in extremely high margins from patients with commercial insurance (MedPAC 2015b).[51]

All-payer rate setting can also reduce the system's reliance on price discrimination that powerful health care systems enjoy, which creates an unfair and inequitable situation that not only affects the varying well-being of hospitals but also produces unequal opportunities for different patient populations to have access to high-quality care, supported by cutting-edge technology.

MedPAC and others have raised the concern that growing disparities in private and Medicare payment rates will, over time, erode access for Medicare beneficiaries (MedPAC 2015b), much as Medicaid patients currently often experience difficulty gaining access to specialty physician care. In that way, all-payer rate setting can serve to level the playing field for all stakeholders, including consumers and patients.

Adoption of rate setting in more states might serve to complement delivery system and payment reform initiatives by helping to overcome provider resistance to achieving the three-part aim. The experience of state-based, rate setting systems in using volume adjustment mechanisms could provide useful lessons for both federal and state payment policy regarding ways of either neutralizing or eliminating incentives for hospitals to provide unnecessary care that produces substantial revenues. The use of volume adjustments or, more ambitiously, global budgets—as in the Maryland demonstration—also could successfully better align the incentives of hospitals with care coordination initiatives from physician practices, ACOs, payers, and other shared savings programs that seek to reduce unnecessary volumes.

Further, rate setting can facilitate other delivery system innovations, such as insurance products that rely on insurer development of limited and low-cost narrow or tiered provider networks. A major reason for the development of such networks in many markets is to provide some countervailing leverage for insurers in their negotiations with providers. The threat of exclusion or placement in an unfavorable tier provides some rebalancing of leverage in negotiating over prices and other contractual

terms and conditions. However, providers with market power (who often are necessary for the insurer to be able to market its products successfully) may resist the implied unfavorable network placement or exclusion.

Prices determined through rate setting rather than through negotiations, then, would permit payers to orient selective provider network strategies toward assessment of quality and cost efficiency—providing value-added to subscribers and patients—rather than as a tool to try to obtain lower provider prices. Further, the positive spillover effect of rate setting's standard payment approach and the use of a common claim form would foster the public availability of accurate and consistent data on actual prices and payments. Ready availability of such data might promote beneficial changes in insurance benefit design, such as network tiering and reference pricing, to encourage the use of more efficient and effective providers (Ginsburg and Pawlson 2014).

Template for Effective State-Based Rate Regulation

Avoiding Regulatory Failure—Administrative Feasibility

There is legitimate concern about the ability of many states to implement effective rate setting. Given the significant data requirements, inherent complexity, and political pitfalls associated with state-based rate setting, it may be that very few states have the ability to establish and maintain elaborate rate setting systems that will stand the test of time (Pauly and Town 2012).

However, as emphasized earlier, the more effective rate setting systems were not inordinately complex, relying on macro-level incentives as contained in payment formulas rather than detailed micro-level budget review. In West Virginia, which offers hospitals a choice between the two different levels of review, most hospitals opt for the formula-based approach. Further, it can be argued that much of the mind-numbing complexity, in the Massachusetts, New York, and Maryland systems, were primarily the result of requests from the hospital industry for a variety of adjustments to improve the fairness of the system or to address concerns specific to certain institutions.

An effective and administratively feasible system should include two basic features: (1) a statutory provision allowing the rate setting agency the ability to limit hospitals charges to some proportion of Medicare payment (say, 150 percent); and (2) the ability to adjust for volume changes, up or down. A

somewhat more complex form of rate setting, involved the Rochester and Finger Lakes hospital global budget programs and is now the approach being adopted in the Maryland Demonstration.

The literature on the experience with global budgets as part of state or local area rate setting—and conversations with those involved—indicate that global budgets were relatively easy to develop and administer. The Rochester program required a full-time professional staff of six to administer, in part because it was very formulaic in its operation.

A charge-limitation system pegged to Medicare, with restrictions on discriminatory charge increases by revenue center, with a volume adjustment mechanism using a standard annual rate update formula, would be relatively easy to administer.[52]

States that have a large number of relatively isolated hospitals, in which populations of patients in hospital service areas can be naturally mapped to their area hospital, should find it feasible to establish and regulate global budgets for those facilities. That is the case in states such as Vermont, which also has a very high proportion of physicians employed by hospitals, which makes inclusion of their revenues in the global budget worth consideration.

Avoiding Regulatory Capture

Successful all-payer systems require the development of a politically independent regulating body that is free of conflict of interest and is resistant to both industry capture and political meddling. That aim appeared to be best accomplished in systems in states that established independent commissions, as opposed to embedding the governance of rate setting in state departments of health. To prevent industry capture, the question of the make-up of the board or commission governing the rate agency is of some importance.

In particular, there is the question as to whether rate setting agencies should be governed by full-time or part-time commissioners and whether commissioners should be allowed to be affiliated with the institutions that the commission regulates. The use of full-time governing members may be problematic because the civil service salary structure is generally not flexible enough to attract individuals with sufficient experience or technical knowledge to serve as effective policymakers. However, rate setting systems usually can attract highly qualified volunteers to serve as commissioners, given the prestige and authority of such agencies.

Although it may be politically necessary to include hospital representatives on rate setting boards or commissions, the possibility of conflict of interest created by that circumstance is potentially damaging to the credibility and perceived independence of the rate agency. In a worst-case scenario, such a situation could lead to the application of undue influence on the staff and major policy decisions of the agency. Given the importance of avoiding regulatory capture, or even the appearance of capture, it may be most appropriate to do as West Virginia has done and prohibit board members or commissioners from having any affiliation with a regulated entity.

As an alternative to the use of rate setting or industry work groups to develop policy, which makes staff vulnerable to industry's lobbying efforts, rate setting systems could make greater use of notice-and-comment rule making, as implemented by the federal government. That approach could help minimize excessive, time-consuming meetings, which often have the effect of wearing down agency staff and their will to withstand constant exposure to stakeholder views.

Additionally, statutory deadlines for action should be imposed to avoid regulatory delays. Regulator accessibility and open discussion with key stakeholders are also important. However, state systems should also be careful not to make the rate setting staff the focus of payer and hospital lobbying efforts. Systems should strive for a balance of open communication and emphasize commissioner involvement in the policy-development process.

Finally, perhaps the most successful way to avoid industry capture is to have standards of performance imposed on the system by the federal government (in this case, CMS or HHS) that are relatively invulnerable to state political pressure. In addition, it would also be helpful for the federal government to subject the state and all the stakeholders to significant negative consequences, should the system fail to meet relevant and reasonable performance standards. The fact that Maryland and the various stakeholders, stood to lose $1.5 billion in extra hospital payments was a major galvanizing force, and the key reason that the state was able to maintain support for the core constituents, including state government. The threat of "mutually assured destruction" can help bind together the support and interests of business, government, the hospitals and payers.

Characteristics of Effective Rate Setting Systems

Based on our review of the record of and experience with hospital rate setting in the U.S., we make the following recommendations to guide the development and implementation of successful rate setting systems:

- Rate setting approaches should be automatic and formula-based. Clear incentives are more effective and easier to administer than annual detailed budget review approaches. The latter should be reserved for unique circumstances.
- Although there is a role for rate setting that affects only the rates of nongovernmental payers, the logic and promise of state-based rate setting lies in the potential of all-payer rate setting, through the approval of a Medicare waiver to give the program authority over Medicare spending rates, subject to meeting strict performance tests.
- A clear consensus for and articulation of policy goals, principles and regulatory tenets in the development of all payment methodologies is important in avoiding the development of excessively complex methods, which can obscure basic financial incentives.
- Policy goals should emphasize payment equity and fairness, while attempting to limit price-discriminatory practices of provider systems.
- The program should seek a desirable balance between political independence and regulatory aloofness through notice-and-comment rule making, while maintaining open communication with the hospital industry.
- The rate setting body needs budgetary flexibility to be able to recruit a highly trained and technically sophisticated professional staff that has the capability to make use of extensive data and analytic techniques and to communicate with the industry in methodology development.
- The commission needs to provide periodic public reporting on system performance relative to preestablished goals and targets that makes all parties, including the regulatory body, accountable for their performance.
- Rate setting should not limit its purview to concerns about prices and or even overall costs. Payment approaches must explicitly consider the need to reduce the potential for adverse consequences on patient quality and access to care.
- State-based rate setting should be supported by federal imposition of broad constraints and other performance expectations to reduce the potential for regulatory capture.
- A governing board should comprise part-time, volunteer (as opposed to full-time, paid) commissioners, who have a strong interest and expertise in health care financing, delivery, and policy issues, and who have no affiliation with a regulated entity.

Concluding Comments

As we have noted, enhanced antitrust enforcement is not an effective strategy to reverse the effect of provider concentration that has already taken place and to address those regressive dynamics moving forward. Once a merger has been completed and the consolidated entity has been in operation, it will be impossible to "retrieve the butter from the dog's mouth" and reconstruct a viable and divestible group of assets.

The record shows that state-based all-payer rate setting can effectively countermand both of those highly unfavorable dynamics associated with the growing monopolization of the health care provider industry. The use of limits on the ability of providers to charge monopoly prices is particularly important in an era of expanded and heavily subsidized health insurance. The ability of rate systems to correct the market distortions associated with provider monopolies can also, quite ironically, help spur increased competition among hospitals, and it can support the development of at-risk entities and shared savings programs in seeking better care value for their beneficiaries.

Rate setting systems were successful and continue to be so today (in the form of Medicare, Medicaid, and the Maryland all-payer hospital rate setting system). Those programs have shown a better ability to achieve the goal of improving value in terms of long-term cost control and the ability to incentivize improved quality of care than have most market-based systems. The failure of state systems in the past was not a failure of the conceptual and operational aspects of those programs as much as it was a failure of the political coalitions that were responsible for their initial development. As we have discussed, however, future state-based rate setting systems can be structured to avoid such failures.

Some people will continue to oppose the use of hospital rate setting on purely philosophical grounds. For instance, former CMS administrator Tom Scully once described Medicare as a "dumb price fixer." In response, the economist Uwe Reinhardt observed that Scully's caricature had some merit but that "one would be hard put, however, to defend the current bizarre private-sector pricing system," which "generates extremely high and wildly variable pricing. 'Dumber' might be the appropriate word" (Reinhardt 2009).

For all the theoretical benefits of private sector competition to produce innovation, private health insurers use the same administrative pricing methods that Medicare uses; they just pay much more. Our view is that price regulation and market competition over quality and service can be complementary. All-payer rate setting can support desirable market competition.

America must slow long-term health expenditure growth to levels that can be sustained by public budgets and by national and state income growth. All-payer rate setting still offers the best means to meet that fiscal and economic challenge. Despite the current political challenges associated with a policy approach that relies on an active role for government to support a rate setting apparatus, further erosion in the affordability of private insurance, combined with growing fiscal strains caused by rising health costs, may convince consumers and politicians to support greater control over provider prices.

Notes

1. The term *market concentration* in this context refers to how concentrated hospital market shares are within a given market area (e.g., a metropolitan statistical area). The level of market concentration is most commonly measured by the Herfindahl-Hirschman Index (HHI). The HHI takes into account the relative size distribution of the firms in a market. It approaches zero when a market is occupied by a large number of firms of relatively equal size, and it reaches its maximum of 10,000 points when a market is controlled by a single firm. The HHI increases both as the number of firms in the market decreases and as the disparity in size between those firms increases. The FTC and DOJ generally consider markets in which the HHI is between 1,500 and 2,500 points to be moderately concentrated and markets in which the HHI is in excess of 2,500 points to be highly concentrated.
2. Per Irving Levin Associates Inc. (2013), the number of hospitals involved in mergers has steadily increased, from 125 in 2010 to 283 in 2013.
3. Other data sources, such as the Bureau of Labor Statistics (BLS), led analysts from the Altarum Institute to conclude that "[provider] consolidation has not translated to an increasing rate of hospital price growth, at least not at a national level." However, many of the BLS data series used to estimate private-sector price changes also include data from Medicare Advantage plans. The pricing of those plans tends to follow traditional Medicare and thus likely results in a number that understates price increases experienced by private plans. Data from the HCCI seem to be the most reliable source of evidence that private-sector pricing was increasing in 2012 and 2013. The HCCI data are a highly representative database from four large commercial carriers, accounting for about 40 percent of all private-sector claims.
4. Chad Bray and Michael de la Merced, "Anthem to Buy Cigna amid Wave of Insurance Mergers," *New York Times,* July 24, 2015, http://www.nytimes.com/2015/07/25/business/dealbook/anthem-cigna-health-insurance-deal.html.
5. From 1960 to 1980, national health expenditures nearly doubled as a percentage of GDP, moving from 5 percent of GDP in 1960 to 9.1 percent of GDP in 1980. National health expenditures grew at a compounded average annual rate of 9.8 percent and 13.0 percent in the decades of the 1960s and 1970s, respectively, while annual inflation averaged 2.5 percent and 6.7 percent in the 1960s and 1970s, respectively (Catlin et al. 2007).
6. *Price discrimination* is defined as the practice of charging different purchasers different prices for identical goods or services. That practice is widespread in the hospital industry, as has been well documented by various authors, including Uwe Reinhardt, Steven Brill, and Elizabeth Rosenthal. There are various reasons why hospitals price discriminate. Hospital representatives argue that they are forced to charge higher prices to commercial insurers to offset lower payments from public payers (so-called cost-shifting). Under that theory, hospitals face operating costs that are immutable (or given) and cannot be lowered. However, many studies have cast doubt on the idea that hospitals increase prices to privately insured patients because of lower payments from Medicare and Medicaid. Although cost shifting may take place in some limited circumstances, the overriding cause of price discrimination appears to be the increased market power wielded by hospitals, physician groups, and health systems (Frakt 2011).
7. Although the mandatory compliance systems are acknowledged to have been the most effective constraint systems (Zuckerman 1987), it should be noted that the Rhode Island hospital budget review system seems to have been successful in controlling hospital cost growth, with rates of growth matching those of the most successfully regulated states (Atkinson 2009).
8. Those latter demonstrations created global budget payment arrangements that covered nine hospitals in Rochester and six hospitals in the Finger Lakes area. The Rochester demonstration was called the Hospital Experimental Payment program and the Finger Lakes demonstration was referred to as the Finger Lakes Hospital Experimental Payment program.

   Federal hospitals (such as the Veterans' Administration hospitals and the National Institutes of Health) were not subject to state-based rate setting.

9. In this report, we adopt the convention of referring to the various Blue Cross Blue Shield affiliates as "Blue Cross" or "Blue Cross" plans, although we would note that in some cases, Blue Cross and Blue Shield operate and have operated as separate carriers.

10. The Reagan administration actively developed and implemented the inpatient prospective payment system for Medicare, which is viewed as a highly regulatory approach to constraining hospital payments. But in contrast to the Carter hospital cost-containment approach, the Reagan Administration rejected all-payer approaches designed to regulate the prices that hospitals could charge nongovernmental payers.

11. Some rate setting systems, such as those in West Virginia and Massachusetts, appointed full-time paid individuals as commissioners, whereas others, such as the system in Maryland, were governed by a group of volunteer "citizen" commissioners. Maryland believed a governing board consisting of volunteers with an interest and expertise in health care matters would be superior to a system run by full-time commissioners because the state's salary scale would not be sufficient to attract individuals with sufficient expertise and knowledge. The downside to the voluntary commission model, however, is that part-time commissioners often do not have the time to devote to fully understand the rate system or the various policy modifications proposed by the professional staff and thus may only serve to "rubber stamp" staff recommendations.

12. For instance, one of the key success factors of the Medicare IPPS is that it transferred manageable levels of risk to hospitals that had relatively large Medicare inpatient case loads (that is, it placed them at risk for managing costs that were under their control, such as costs per unit of service, ancillary costs per day, and length of stay). Medicare eventually realized that smaller hospitals, however, could not manage that type of per case risk because the costs of treating a patient in a particular DRG are highly variable. For small hospitals, the volume of inpatient Medicare cases was not sufficient to ensure that the average DRG payment received was sufficiently aligned with those hospitals' actual cost experience, and many of those facilities became insolvent in the early years of the IPPS. In response, Medicare created the Critical Access Hospital (CAH) designation and allowed hospitals that met Medicare's criteria for being a CAH to be subject to cost-based payment for their Medicare claims.

13. Adapted from Averill et al. (2010).

14. The absence of a blending mechanism has generated criticism of the methodology used in the establishment of the benchmark (cost base) for both the Pioneer and Medicare Shared Savings Program (MSSP) ACO programs.

15. Most rate setting systems did not build into their rates an explicit provision for profit. Instead, under a prospective mandatory-rate system, any savings generated from cost reductions would accrue to the hospital. Thus, the expectation was that hospital solvency had to be "earned" through improvements in efficiency over time, under approved rate and revenue levels.

16. The hospital *market basket index* (MBI) is an index of the total cost of all the goods and services that a hospital must purchase to provide care. The hospital market basket measures a fixed set of goods and services for the hospital and compares it with how much those same items are expected to cost at some point in the future. Many rate setting systems (including the Medicare IPPS) used the MBI as one component of annual trend factor applied to hospital rates.

17. As noted, Medicare eventually realized that because of their small inpatient case loads of Medicare patients and the high variability of costs of patients for any given DRG, small and rural hospitals were not able to effectively manage the per case risk transferred to them through the IPPS. Instead of defaulting to cost-based payment for those facilities, Medicare likely could have adopted a prospective rate system (line 1—a rate per itemized service or line 2—a rate per diem) that transferred less risk than a DRG system. That type of payment structure, if coupled with a volume adjustment, would have created more effective incentives for the management of those hospitals' costs while also protecting them from unexpected declines in volumes, thus achieving one of the objectives (ensuring financial solvency) of a cost-based system.

18. In this discussion, we use the term *basis of payment* to refer to the type of incentive system being used in a given payment system to influence hospital behavior. The term *unit of payment* refers to how hospitals are paid (per itemized service, per day, per case, etc.). However, the incentives of a specific hospital payment system can differ (as in the case of the Maryland and Rochester/Finger Lakes systems) if a payment system overlays a system of revenue constraint (the unit of constraint) that is different from the unit of payment. For instance, in the original Maryland system, the unit of payment was itemized charges per service. However, the unit of revenue constraint superimposed on hospitals was per case. So in this situation, the overall basis of

payment of the original Maryland system was per case because hospitals assumed per case risk and thus faced incentives to control their overall per case costs.

19. The Rochester and Finger Lakes regional global budget systems worked similarly to the Maryland global budgets except that those hospitals were not paid on the basis of itemized charges. Those programs constructed a system whereby each payer made interim payments on a biweekly basis at one-twenty-sixth of that payer's estimated share of the hospital's approved global budget. That system vastly simplified the claims processing and overall administration of the system for both hospitals and payers.

20. Medicare does not face that problem because it applies a first-day deductible as the only cost sharing during a typical inpatient stay. Per case payment systems work relatively well for major payers, such as Medicare, Medicaid, and Blue Cross, in which variations from one case to another generally average out, and patient cost sharing is limited. However, per case payment systems are particularly unsatisfactory for self-pay patients. That is because a self-pay patient that has a very low length of stay would be charged the standard DRG rate based on his or her diagnosis.

21. The Maryland system subjected all hospitals to an annual review of relative efficiency called "the Reasonableness of Charges (ROC) review," which was based on a comparison of a hospital's adjusted charges (stripping away various components in the rate structure to approximate costs) to the adjusted charges of peer institutions. In general, the Maryland system made heavy use of peer-to-peer comparisons to assess relative hospital efficiency and quality.

22. Although requested by the hospital industry to provide adequate payment for extremely ill and high-cost patients, it is not at all clear from our experience that outlier payments are necessary. In the past, Medicare's outlier provisions have encouraged hospitals to game the system through the use of excessive charging practices. In addition, once a patient reaches a preestablished outlier threshold, hospitals have no incentives to restrain the use of services that may expose patients to unnecessary and overly interventionist treatments. Maryland has reduced its outlier payments to less than 2 percent of total payments (far less, as a percentage of the total, than the Medicare system). Given those circumstances, it may be that a far more restrictive outlier definition for Medicare would be both practicable and appropriate.

23. Maryland made the mistake of scaling back (in the 1990s) and then abandoning (in 2001) its volume adjustment system, with the thought that managed care companies had a firm grip on hospital volumes. Hospital volumes in the state rose dramatically from 2001 to about 2008, which greatly undermined that state's per capita hospital cost-containment success (Kalman et al. 2014).

24. Personal communication between the lead author and various Maryland hospital chief financial officers. The difference in those estimates may be explained by the fact that nonprofit hospitals tend to spend the marginal revenue above their variable costs (Stensland, Gaumer, and Miller 2010). However, those additional expenditures go into each hospital's cost base and artificially inflate the estimates of the proportion of hospital costs that vary with changes in volume. The regression-based analyses used by academics to estimate fixed and variable cost proportions over long periods of time falsely conclude that hospital costs are 80–90 percent variable.

25. This debate may well have important implications for current CMS policies regarding ACO development because it would mean that ACOs based around large hospitals or health systems (such as is largely the case for both the Pioneer and MSSP-ACO programs) will face financial incentives that run counter to the goals of the ACO program (see Lessons Learned section).

26. The use of surcharges on hospital rates to fund uncompensated care pools in state-based rate setting systems was challenged by self-funded plans in the early 1990s. New Jersey's arguably excessive surcharge of 19.5 percent on rates paid by commercial insurers and self-funded plans to finance hospital uncompensated care caused a group of building trade unions with a self-insured fund in New Jersey to file a lawsuit claiming that the Employee Retirement Income Security Act (ERISA) preempted the state's authority to impose growing surcharges for uncompensated care. Although the district court ruling only called for a restructuring of the system for funding uncompensated care, it quickly generated a consensus throughout the state from hospitals and HMOs for the elimination of hospital rate regulation in the state (see United Wire et al. vs. Morristown Hospital et al. 1992). Like New Jersey, New York also faced successful court challenge, also based on an ERISA preemption argument, to its method for financing hospital uncompensated care through its rate setting system (see Travelers Ins. Co. vs. Cuomo 1993). Although that action did not challenge the entire New York rate system, many observers saw a direct parallel between the "Travelers Case" and the "United Wire Case" that

precipitated the deregulation of the New Jersey rate setting system in 1992 (McDonough 1997). However, in April 1995, the US Supreme Court overturned the Travelers decision by ruling that indirect effects on employer-sponsored health plans—as were used in the New York rate setting system—were not preempted by ERISA (see the New York Conference of Blue Cross and Blue Shield Plans v. Travelers Ins. Co. 1995). Despite that ruling, New York moved to dissolve its rate setting structure in 1996. Other rate setting states, such as the one in Maryland, took solace from that ruling and viewed it as putting to rest the issue as to whether state-based rate setting was preempted by ERISA.

27. Managed care plans were technically prohibited from obtaining discounts under the rate system, although according to most sources, illegal discounts were very prevalent (McDonough 1997).

28. "Rate Review," West Virginia Health Care Authority, accessed November 2, 2015, http://www.hca.wv.gov/ratereview/Pages/default.aspx.

29. Although the determination of the peer groups has not been an area of significant concern by hospitals (per discussions with HCA staff), some hospital representatives interviewed indicated that the criteria used for establishing the peer groups should be reconsidered more often because hospitals added and eliminated services over time.

30. Hospitals are not required to raise their charges uniformly across revenue centers. Thus, similar to hospitals nationally, West Virginia hospitals' charge masters are characterized by significant charge variation across revenue centers, and charges and payments for specific procedures (such as knee or hip replacements) can vary considerably from one hospital to the next.

31. Unlike most other state-based rate setting systems in the United States, the HCA does not prescribe the structure of payment arrangements between nongovernmental payers and hospitals. Hospitals and payers are free to negotiate discounted charges per diem, per case, per DRG, or, in some limited cases, per capitation payment structures.

32. Per interviews with hospital representatives, it appears that the negotiated discounts with a given payer, such as Highmark, vary significantly across hospitals. According to HCA staff, there is currently a fairly large range of discounts provided by the hospitals, with the larger hospitals having the leverage to negotiate smaller discounts than the smaller hospitals. The HCA does not have a role in the negotiation process of the hospitals' discount arrangements; the hospitals do that on their own.

33. Equivalent Inpatient Admissions (EIPAs) are a common measure of hospital output. EIPAs are a count of inpatient admissions, adjusted upward to account for the volume of outpatient services. The formula used is as follows: equivalent inpatient admissions = inpatient admissions × (total inpatient and outpatient revenue/inpatient revenue). The formula can thought of as converting an outpatient visit to a fraction of an inpatient admission, the fraction being the revenue for an outpatient visit divided by the revenue for an inpatient admission. The number of out-patient equivalent admissions is that fraction times the number of outpatient visits; the outpatient equivalent admissions are added to the inpatient admissions to arrive at a total number of EIPAs.

It should be noted that the HCA has traditionally used data from the Ingenix annual Almanac of Hospital Financial and Operating Indicators to track hospital industry performance. That data source uses a combination of data sources (primary data collection, Medicare Cost Report data, and some state-specific hospital public use files) to track hospital revenue and cost growth over time. The source is proprietary, however, so the authors referenced data for West Virginia hospitals from the annual American Hospital Association statistics, which were more readily available.

34. "Providers & Service Use," Kaiser Family Foundation, accessed November 2, 2015, http://kff.org/state-category/providers-service-use/hospital-utilization/.

35. Price discrimination is a pricing strategy that charges customers different prices for the same product or service.

36. All-payer refined DRGs are a product of 3M Health Information Systems.

37. This hybrid system of itemized payments per individual patient and per case revenue constraints at the institution level overcame the weaknesses of all-payer DRG pricing systems, such as that in New Jersey, which required all patients to pay the average of a specific DRG, regardless of his or her actual treatment costs.

38. Some people believe that this structure also helped the HSCRC accommodate the proliferation of managed care in the state because HMOs could retain any savings they helped generate on a given patient through concurrent utilization review and management.

39. As will be discussed, this core payment and constraint system was retained by the HSCRC under the newly adopted waiver agreement with CMS, with hospitals continuing to be paid on an itemized unit rate basis, but with a dramatic broadening of the unit of constraint from per case to per hospital global budget.

40. One of the most dramatic and positive effects of rate setting is on the charge-to-cost ratio of hospitals, and thus on the equity among payers in the Maryland system. Over the past 35 years (but particularly in the last decade), hospitals across the United States have been increasing their charges faster than their costs (average US hospital markups over cost are now well over 200 percent according to the American Hospital Association annual statistics). This is in part because most commercial payers negotiate discounts for services and pay scant attention to charge levels. However, some aspects of the US payment system reward hospitals for high charge levels. For instance, hospitals increase their charge levels to increase their Medicare outpatient payments and to exploit a loophole in Medicare payment for outlier cases (Brock 2003). Equally important, high charges have dramatically negative effects on uninsured patients or "out-of-network" patients, who are forced to pay full retail prices. See Elizabeth Rosenthal, "After Surgery, Surprise $117,000 Medical Bill from Doctor He Didn't Know," *New York Times,* September 20, 2014, http://www.nytimes.com/2014/09/21/us/drive-by-doctoring-surprise-medical-bills.html?_r=0.

41. "Annual Disclosure Reports," Health Services Cost Review Commission, accessed November 2, 2015, http://www.hscrc.state.md.us/pdr_annualReports.cfm.

42. The state's worsening performance on its Medicare waiver test was further exacerbated by a tougher national benchmark resulting from Medicare spending reductions to hospitals, mandated by the Balanced Budget Act of 1997.

43. TPR hospitals operated within fixed global budget rate structures that did not vary with changes in the number of patients served by a TPR hospital in a given year. Thus, as was the case with the hospitals in the Rochester and Finger Lakes regions of New York that operated under fixed global budget rate structures during these regions' Hospital Experimental Payment programs (1980–87), the TPR hospitals had strong incentives to reduce unnecessary or marginal service volumes (preventable admissions, readmissions, and unnecessary hospital outpatient services). TPR hospitals that successfully reduced that unnecessary service use were allowed to retain as profit any of the cost savings associated with the reduced services. The TPR hospitals, like the Rochester and Finger Lakes hospitals, then used the reduction of waste in the health care system as a source of financial sustainability. For more information on the HSCRC's TPR methodology, see http://www.hscrc.state.md.us/init_tpr.cfm.

44. See the HSCRC website for a further description of the ARR program: http://www.hscrc.state.md.us/init_ARR.cfm.

45. The $1.5 billion is the common wisdom, "whisper" number that most stakeholders in the all-payer demonstration accept as the federal funding that benefits the state. We could not find a public record that documents that number.

46. Patient Protection and Affordable Care Act., Pub L. No. 111-148, 124 Stat. 119, section 1115A(b)(2)(B)(xi).

47. Although that limitation, if met by the state, would save the Medicare Trust Fund the approximate $330 million over the five-year demonstration period, relative to the growth in per beneficiary hospital expenditures nationally, outright termination of the Maryland waiver with a transition of Maryland hospital to payment levels provided by Medicare IPPS and OPPS would effectively save Medicare more than $7.5 billion over the same time period (five years times the $1.5 billion extra federal payment that Maryland hospitals receive because of the waiver). In this event, Maryland hospitals would seek to make up those shortfalls through the same type of price discrimination to private insurers that occurs elsewhere in the United States. To Medicare's credit, the agency did not look to excessively penalize Maryland and require a full payback of the extra Medicare payments to Maryland hospitals. Instead, the agency was interested in testing a novel idea and experimenting with important implications for future payment policy in the United States.

    The limitation imposed by the model agreement relates to traditional Medicare beneficiaries and does not include Medicare Advantage enrollees.

48. Population-based payment arrangements are defined in the agreement as either (1) directly population based, such as tying hospitals' payment to the projected services of a specific population; or (2) establishing a global budget for hospitals for services unconnected to assignment of a specific population, but related to historical trends, the hospital service area, and residents served through innovative care models. In response, the HSCRC developed a system that, in effect, attributed an identified population of patients to each urban and suburban hospital and allowed adjustments to each facility's global budget for changes in hospital demand associated with the demographic changes (i.e., increases or decreases in the population and/or aging of those patients).

49. Those readmission-rate data were reported to the HSCRC by the CMMI and are based on a definition of readmissions that are specific to the Maryland Model Demonstration. Therefore, they do not match Medicare readmission rates recently reported by CMS.

50. As of 2015, there were 20 ACOs operating in Maryland, with many more expected to begin operation in the coming years. With hospitals under global budgets, ACOs will not face resistance to their efforts to reduce marginal and unnecessary hospital volumes.

51. In its research, MedPAC has shown that nonprofit hospitals with significant market power relative to commercial insurers have much higher rates and much higher cost structures than do nonprofit hospitals with less market power. For example, based on data from the California Department of Insurance, Aetna and Blue Shield of California pay hospital rates that are 200 percent of Medicare's IPPS rate and 300 percent of Medicare's OPPS rate in California. MedPAC discounts the cost-shift argument. However, MedPAC also has shown that hospitals with significant negotiating leverage relative to commercial insurers have much higher cost levels than do hospitals with lower levels of negotiating leverage. That finding indicates that hospitals have some control over their costs, as evidenced by the fact that hospitals that are forced to manage their costs, because of constraint by commercial insurers, are able to and do generate Medicare margins.

Hospitals prefer higher revenues to lower revenues, and they will raise rates to commercial insurers when they have market power. MedPAC consistently finds that when hospital revenues are higher, hospital costs are also higher (resulting in negative Medicare margins). Thus, the causation is that higher commercial prices tend to drive up costs, because, as nonprofit entities, those hospitals do not have a need to maximize profits for their shareholders. Instead, once nonprofit hospitals have generated enough revenue and cash flow to meet their preset profitability targets, they tend to spend excess profits on service-line expansions, new technology, and purchasing physician practices, patient amenities, or other capital expenditures designed to maintain or expand their market share.

By contrast, MedPAC has also found that when for-profit hospitals have high profits from commercial insurers, they tend to retain the added profit for shareholders instead of increasing their cost structures. This view of nonprofit hospital operating strategy is consistent with the perception of hospitals as "self fueling, ever expanding machines" (as described by Professor James Robinson from the University of California, Berkeley) is consistent with many health economists' view of the motivations of nonprofit hospital managers. Without the need to distribute profits to owners, managers of nonprofit hospitals and health systems instead have incentives to pursue business augmentation strategies—to enhance their self-esteem and status in the community and to justify increased perquisites for themselves.

52. In this type of more simplified rate setting system, any allowed charge increase would have to be largely uniform across revenue centers and not skewed for specific centers, such as obstetrics—which might affect Medicaid or the daily care centers, which might affect Medicare disproportionately.

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