

THE SOURCE

ON HEALTHCARE PRICE & COMPETITION

Report on Useful Rate Setting Methods and Techniques from the
Maryland Hospital All-Payer Rate Setting System

Part 1: Rate Setting in Maryland and Relevance for States Implementing Hospital Rate Setting Systems Today

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Part 1: Rate Setting Development In Maryland and Relevance for States Developing Hospital Rate Setting Systems Today

I. Introduction

A. Why Rate Setting?

Since the late 1960s, the U.S. healthcare system has been characterized by dramatic innovations in the treatment of disease, highly effective pharmaceuticals, patient therapies, and new healthcare technologies to treat acute illnesses. Despite past technological healthcare innovations and the United States' relatively favorable ranking on the "care process" (i.e., emphasis on patient safety, vaccinations, and other preventive interventions), the U.S. broader health system ranks poorly, relative to other developed countries' performance, on key patient outcomes, such as life expectancy at birth, preventable mortality per 100,000 and other outcome measures.¹

Perhaps more importantly over this same period overall U.S. healthcare spending growth has far outstripped the growth of healthcare spending in all other developed countries, making it the worst performing nations in terms of the affordability of and access to needed healthcare services.² This erosion of affordability and access is most prevalent in private insurance markets as evidenced by the "supracompetitive" hospital prices now paid by private insurers and self-funded plans.³ We believe this consistently poor performance on affordability and accessibility in the private insurance market is largely a function of one key factor that differentiates the U.S. from all other Organisation for Economic Co-operation and Development (OECD) countries; Unlike OECD countries worldwide, other than the state of Maryland, the U.S. does not employ a system of mandatory and government regulated provider pricing systems to control the prices paid by patients for the country's private system of insurance coverages.⁴

Hospital prices paid by private insurers have risen steadily since the mid 1990.⁵ In response the U.S. has attempted to address the issue of high and rising expenditures on healthcare services through a variety of indirect and largely aspirational policies and initiatives. These include: 1) more aggressive antitrust activity, which has had some limited success in preventing mergers, but has been largely overwhelmed by the thousands of provider mergers and other consolidation activities that have taken place since the turn of the century; 2) improved provider price

transparency to aid healthcare identify and contract with lower priced providers, activities which have been thwarted by the negotiating dominance of providers, particularly hospitals, in the vast majority of healthcare markets across the U.S.; 3) efforts by health insurers to negotiate more favorable provider prices, which has also been frustrated by the lack of competition in healthcare and hospital markets across the U.S.; and 4) a myriad of generally aspirational initiatives promoted by the federal government and some private payers to introduce weak, ineffective and largely voluntary so-called “Value-Based Payment” (VBP) models since the passage of the Affordable Care Act in 2010. None of these efforts have successfully constrained the growth of healthcare prices and spending.

Accordingly, with healthcare affordability concerns now of paramount importance nationally, it is time for states to take the lead in pursuing and implementing healthcare cost containment efforts by finally doing the “right thing” and aggressively legislating, organizing and implementing mandatory government administered provider rate setting models based on successful models of the past.⁶ The Maryland All-Payer hospital rate setting models in Maryland, particularly those used in the late 1970s, 1980s and early 1990s can be instructive to states now receptive to pursuing rate regulatory models. As many as 14 states have either taken steps in this direction and it is anticipated that other states may well follow these seminal regulatory efforts in future years. As Winston Churchill reported said, “American always do the right thing – only after exhausting every other possibility.”

Given the astoundingly high cost of care now facing most privately insured individuals and families, perhaps this country will finally overcome long-standing our political bias against government regulatory intervention and implement proven and effective rate setting models, similar to those implemented in the period 1976-1992 in the state of Maryland. In this report, we hope to demonstrate the effectiveness of these past rate setting efforts and describe how this past success can be applied today by states looking to implement nascent state-based, government administered hospital price and spending control models.

B. Report Overview

This report is one of several documents prepared by the University of California College of the Law San Francisco’s Source on Healthcare Price and Competition (“The Source”). It is intended to provide education and resources aimed at building state capacity to develop state-based hospital rate setting models, including the development of Reference Based Pricing (RBP) Caps benchmarked to Medicare hospital payments and so-called “Flexible” All-Payer Hospital Global Budgets (HGBs) to help states control the growth of hospital prices and overall hospital spending,

1. Key Sections in the Report

This report has the following sections: First, we briefly summarize the dynamics contributing to our nation's extremely expensive healthcare system. These circumstances were discussed in some detail in an article we prepared in 2024 entitled: "Americans Always Do the Right Thing: When will the U.S. Finally Control Runaway Hospital Price Growth?"⁷ As we note in that article, market forces to constrain prices and allocate resources efficiently that normally work through the interaction of supply and demand in a competitive market can be disrupted by so-called market failures. There are several market failures specific to the health care industry, but the most important one is what Erin Fuse Brown describes as "non-competitive healthcare markets."⁸ The U.S. has experienced several waves of mergers and acquisitions since 1995 resulting in 97% of U.S. hospital markets being what the Federal Trade Commission considers to be "highly concentrated."⁹ This concentration of market pricing power has allowed hospitals to negotiate persistent increases in the hospital prices paid by private insurers and self-funded plans nationally.

Second, we describe key aspects of the early rate setting experience of the Maryland's Health Services Cost Review Commission (the HSCRC or Commission) that may be instructive for states now implementing or considering legislation to establish rate controls on hospital prices. In addition to controlling hospital price and overall spending growth, the early Maryland rate setting system demonstrated an ability to improve the equity of hospital pricing, expand access to hospital care (by funding "reasonable" levels of hospital uncompensated care through the rate setting system), and enhance the overall stability and predictability of the hospital financing system in the state. We believe an examination of the Commission's early rate setting methods provides examples of approaches and techniques that other states can adopt today to control hospital price growth and unnecessary volume growth.

In particular, we focus on the HSCRC's development of the Commission's initial or "base rates" which represented payment levels that reflected actual production costs for each hospital service and was far more equitable and economically rational than the hospital prices paid by private insurers today. As many as 14 states today are experimenting with legislation that establishes price caps, at multiples of comparable Medicare hospital prices (referred to as Reference Based Price Caps).¹⁰ As we will describe, these price caps, benchmarked to Medicare, can be the basis for the development of a more equitable and economically rational set of regulated hospital rates.

However, it makes sense for states to implement RBP Cap models first because they can be developed quickly and represent an ingenious and feasible first step in the development of ef-

fective hospital rate setting models. The use of price caps referenced to comparable Medicare hospital prices, can help states constrain excessive hospital prices and spending. This initial approach can also and give states crucial experience with rate techniques and methods. We would encourage states to incrementally build on their experience with price caps and transition to more expansive and more flexible rate setting approaches.

Eventually, we advocate that states that initially use RBP Caps to control hospital prices consider making use of the Medicare RBP approach to transition to a set of fully regulated “base rates,” that will allow a state to administratively establish and regulate a single payment rate for each defined hospital service (i.e., a rate per Diagnostic Related Grouping (DRG), per diagnostic test, per clinic or ER visit, etc.). A system of regulated base rates per hospital service matches the approach adopted by Medicare, Medicaid and past and present rate setting states, such as Maryland. These systems went through an elaborate data collection and analytic process to set base rates that reflected the cost of production for each regulated service. Now states can make use of Medicare’s hospital pricing system to create a set of more rational and equitable state regulated hospital rates. Using rates benchmarked to Medicare hospital prices are superior to existing hospital prices because Medicare rates are set based on the cost of production for each hospital service resulting in a more efficient and economically rational pricing system.

A system of regulated base rates that mirrors Medicare’s relative hospital price levels will be more effective in controlling hospital price and spending growth while and result in a more efficient allocation of hospital resources. Regulating a hospital rates per service will also enable a state to more easily include beneficial modifications to the regulated rate system, such as the incorporation of adjustments to help control unnecessary hospital volume growth and other useful regulatory programs. We will outline a suggested roadmap for states in this regard.

In our discussion, we focus on early rate setting techniques in Maryland’s hospital rate setting system and evolution of the Maryland model from what was initially a quintessential FFS payment structure to a system that controlled both excessive hospital price and volume growth. In particular, the HSCRC augmented its legal ability to control hospital cost growth by adding an adjustment to rates, a Volume Adjustment System (VAS), designed to correct the well-documented features of FFS payment structures that incentivize hospitals to over-produce services. Likewise, the VAS was structured to correct the problem of FFS payment that caused hospitals that lost volumes to generate financial losses. With the implementation of the VAS, in the context of the HSCRC’s legal ability to determine hospital annual price increases, Maryland developed a very effective spending control system that constrained both excessive hospital price and volume growth. Although a VAS could conceivably be developed and applied to a system of RBP Caps, a more straightforward application would be to first develop a single regulated

payment level for each hospital service (i.e., a set price for each hospital service as opposed to the imposition of a price cap or ceiling).

As we will discuss, the VAS mimicked the cost and volume control incentives of Hospital Global Budgets (HGBs), to incentivize hospitals to manage their costs and volumes effectively. While Maryland did eventually adopt a version of Fixed HGBsⁱ for all acute care hospitals in 2014, we believe that a more flexible approach, using a VAS, can successfully control hospital spending and volume growth, without the negative side effects of increased wait times for care or the systematic shifting of care that have been unfortunate symptoms of Maryland's system of fixed HGBs. As we will discuss, another advantage of using a VAS is that it can be applied to a regulatory system that applies to just one payer (such as regulation of just private sector hospital rates) as is being contemplated in states such as Vermont and Indiana.

Fourth, we provide a proposed "road map" outlining a recommended series of incremental steps states can take to gradually exercise regulatory control over rapidly increasing hospital prices paid by private insurers in a state. We focus on rate regulation models for hospital services because the hospital sector accounts for the largest proportion of private health spending, (approximately 42% of total healthcare payments in 2023),¹¹ and has experienced the most rapid overall average annual of growth of any provider sector at 10.4% in 2023 and 9.2% in 2024.¹²

Fifth, we describe several supplementary rate-setting methodologies designed to assist a regulatory agency to 1) improve the equity of hospital payments by gradually transitioning from the current inequitable private sector negotiated payment levels to a set of more rational and equitable base payment levels based on multiples of Medicare prices for comparable services; 2) enhance the state's overall cost control capabilities through the application of a VAS covering all private insurer regulated rates, which will help neutralize the FFS incentives to provide low-value and unnecessary hospital volumes; 3) augment the predictability and stability of hospital financing through the development of a mechanism to finance growing levels of hospital Uncompensated Care (UC); and 4) maintain or improve hospital quality by selective implementation of various Pay-for-Performance (P4P) incentive systems to reward improved outcomes. Given that the development of a system to fund hospital UC and a system to incentivize hospi-

ⁱ Throughout this report we refer to the hospital global budget models adopted in Maryland as "Fixed" HGBs, which implies that hospital budgets, once set in a given year, did not vary at all for changes in volume. In actuality, the Maryland HGBs did include small annual adjustments that allowed a hospital's revenues to vary from year to year for changes in each hospital's patient demographics and for estimated "shifts" in patient volume from one hospital to another. Again, these annual revenue adjustments were quite small and generally unpredictable. Accordingly, we characterized the Maryland hospital budgets as "Fixed" HGBs throughout the remainder of this report, because the HGBs created extremely strong incentives for hospitals to reduce all hospital volumes by any means possible.

tals to improve the quality of care they provide work best when leveraged across the broadest revenue base possible, we would suggest that states postpone the implementation of a UC financing and Quality of Care improvement programs until it has obtained approval of a Medicare Waiver, which would allow the state to apply these valuable funding programs across all payers and leveraging all revenues from Medicare, Medicaid and Private insurers.

Finally, we propose a “Model Statute” based largely on the Maryland Health Services Cost Review Commission’s founding legislation to help states develop both the legal and governing authority to eventually implement all-payer hospital rate setting models in the future. This proposed statute covers both key governance and operational characteristics of a politically independent government agency or Commission, to oversee and operate our proposed system of regulated hospital prices or budgets, along with key regulatory authorities and clear policy objectives to improve the operation and affordability of a state’s system of hospital care.

Our system of excessively high prices and large year-over-year growth in spending on needed health services has created a hospital system that is increasingly unaffordable and less accessible to Americans, particularly privately insured individuals. In addition to eroding the affordability and accessibility of hospital care, high and rapidly rising hospital prices have other negative economic and societal impacts, such as reduced competitiveness of U.S. firms internationally due to high health spending for their employees, suppressed overall employee wage growth, higher insurance premiums and cost sharing provisions, and other negative social impacts such as increases in opioid use and suicides in markets with high hospital prices.¹³ As noted, past attempts to forestall the rapid growth in hospital prices and spending over the past 25-30 years have not been successful. Both the RAND Corporation researchers and Congressional Budget Office analyses on this topic concur with our and Fuse Brown’s conclusion, that government-administered and -regulated provider pricing systems are the most effective way of controlling rapid healthcare prices and spending in the U.S.^{14, 15}

2. Suggested Roadmap for States Looking to Develop Effective Hospital Rate Setting Models

The original intent of this report was to focus on the development of all-payer hospital rate setting systems and the development of all-payer HGBs. However, given the antipathy of the current federal administration to hospital rate setting and its dismantling of Maryland’s Medicare Waiver by the Centers for Medicare and Medicaid Services (CMMI) and Centers for Medicare/Medicaid Services (CMS), we believe it is unlikely that states will be able to secure approvals of Medicare Waivers in the near term. Consequently, a growing number of states are now focusing rate regulatory efforts on the control of private-insurer hospital spending. Given these

policy dynamics, we provide a description of the HSCRC's early rate setting experience here because it illustrates the use of the Commission's early FFS rate setting techniques to control both hospital price and volume growth which can be applied to attempts to regulate price and spending growth of a single payer category.

The models that we suggest for states to pursue include moving through these regulatory tools step by step: 1) Reference-Based Price (RBP) caps, at a multiple (such as 200%) of Medicare payment levels, applied initially to a state and public employee benefit programs (including the extension of this RBP Cap program to also constrain hospital prices for state educators and local counties and municipalities), followed by; 2) RBP caps on all Out-of-Network hospital services for private insurers, progressing to: 3) the application of RBP caps on all private sector payments and finally to; 4) a transition of these private insurer price caps to the establishment of more equitable base rates (i.e., a set price for each regulated hospital service as discussed above) and the use of a VAS applied to just private sector payments.

Eventually we recommend that states apply their growing experience in setting hospital rates for private insurers, to all payers through an approval of a federal Waiver from Medicare and Medicaid reimbursement methods. As noted, although the current federal administration does not appear to support such Waivers, states can gain meaningful experience with rate setting techniques in the intervening years until a future administration comes to power that may be more receptive to approving state-based all-payer hospital rate setting models.

We are hopeful that these materials will provide a useful addition to the other information and resources provided by the website "The Source on Healthcare Price and Competition," housed at the UC College of the Law, San Francisco. As Fuse Brown concludes in her law review article on market failures in U.S. healthcare markets, given "the increasing preponderance of noncompetitive health care provider markets, the only policy capable of addressing the market power of providers is rate regulation, because no amount of competitive pressure will create choices for consumers where none exist."¹⁶ As discussed, this conclusion is strongly supported by researchers at the RAND corporation and the CBO. We agree with this assessment and believe it is crucial that states now take the lead in developing government regulated hospital pricing systems and gain important experience with RBP caps so they can modify and expand these rate regulatory models to be more comprehensive in the future.

C. The United States' Persistent High Healthcare Spending Problem

It is widely believed that the escalation in hospital prices and spending on hospital care in the U.S. is the result of two major waves of hospital mergers and consolidations, from the mid-

1990s to the early 2000s.^{17,18} Since the COVID-19 Pandemic Health Emergency (PHE), the U.S. has experienced a third and arguably broader wave of health provider consolidations. This more recent wave includes the acquisition of financially “distressed” hospitals during and after the PHE, cross-market mergers involving hospital that operate in different geographical regions, so-called “vertical integration” mergers between hospitals and other providers (particularly physicians), and acquisitions of hospitals and other providers by Private Equity (PE) organizations.^{19, 20, 21} These strategies have resulted in over 97% of all hospital markets were considered “highly concentrated” per the Federal Trade Commission’s (FTC) consolidation measures as of 2023.²²

These dynamics have allowed consolidated hospitals and health systems to raise the prices paid by private insurers to levels that are 2 to 4 times payment levels of the government-regulated Medicare program. The growing divergence between the rates paid by Medicare and private insurers is evidence of this cycle. Private-sector hospital prices increased from an average of 110 % of Medicare prices in the period 1995 to 2000,²³ to nearly 170 % of Medicare in 2018.²⁴ In more recently years, RAND found that employers and private insurers in 2022 paid on average 254 % of what Medicare would have paid for the same services at the same facilities.²⁵

Although the U.S. made significant strides toward the goal of providing near universal access to health insurance with the passage of the Patient Protection and Affordable Care Act (PPACA) in 2010, since that time access to affordable healthcare services has been eroded by the relentless escalation of private sector healthcare prices and spending. The continued and unconstrained growth in hospital prices, caused by the massive negotiating power acquired by highly consolidated hospitals and health systems, is making the insurance expansions for both private and Medicaid insurance beneficiaries fiscally unsustainable for the federal and state governments. Under the current federal administration and Republican-controlled Congress, who are philosophically averse to government interventions in healthcare markets, the safety-net insurance expansions in Medicaid and the government subsidized private insurance market, have started to unravel.^{26,27} The reduction in ACA tax credits and subsidies along with large cuts in Medicaid funding threaten the country with widespread increases in the number of uninsured individuals, along with growing levels of uncompensated care and increased hospital financial instability

The absence of government intervention to regulate provider payment systems for commercially insured individuals reflects a social and political bias against the use of government rate regulation in most commercial market sectors (including healthcare), a sentiment which originated in the U.S. during the Reagan administration. Given this broad political bias against

targeted regulatory action, policymakers, at both the federal and state levels, have attempted to address the growing U.S. healthcare unaffordability problem through the use of selective, largely voluntary, and highly ineffective cost control efforts. These ineffective interventions include enhanced antitrust action at both the state and federal levels, price transparency efforts and the proliferation of mostly voluntary and ineffective Value Based Payment (VBP) initiatives promoted primarily by the Centers for Medicare and Medicaid Innovation (CMMI).²⁸ None of these remedies have worked to stem the growth in hospital prices and private insurer spending on hospital care.^{29, 30}

Given this backdrop, this report strongly endorses the conclusions from RAND, CBO and Fuse Brown that the only way for the U.S. to control healthcare spending is to implement government administered price and spending regulatory programs. Due to the current Trump administration's adversity to government regulation, we believe efforts to regulation and control hospital prices need to occur at the state level. Growing state budget deficits and other developments, such as an inevitable increase in the number of uninsured and increases in hospital uncompensated care, will place additional pressures on states to implement hospital rate regulatory models to control hospital spending and stabilize the financing of hospitals in underserved areas, suffering from growing levels of hospital bad debt.

Considerable evidence in the health services literature on state-based hospital rate-setting programs in the 1980s and 1990s,³¹ the federal Medicare's Inpatient Prospective and Outpatient Prospective Payment Systems (IPPS and OPPS),³² and as well as spending control experience of other developed countries,³³ demonstrates that provider rate setting programs have been effective in constraining healthcare (particularly hospital) price and spending growth.³⁴ Describing the most effective of these approaches and generally promoting provider rate regulation is the mission of this report.

We start with an overview of Maryland's all-payer hospital rate setting system with a focus on the development and evolution of effective hospital rate-setting approaches implemented. We believe the early Maryland rate-setting experience and approach can be instructive for states now experimenting with rate regulation for State and Public Employee programs and private insurers. States can both generate considerable savings and gain valuable experience with rate setting methods and techniques pursuing these approaches and eventually consider the implementation of all-payer HGBs, once a new federal administration more sympathetic to the approval of all-payer Medicare Waivers comes to office.

II. Useful Experiences from Maryland's Early Hospital Rate Setting System

A. Background and Evolution of Hospital Rate Setting in Maryland

The Maryland Health Services Cost Review Commission (HSCRC) was created by an act of the Maryland legislature in 1971 to set and annually adjust hospital rates, create financial incentives to improve operating efficiency, and help improve financial access to hospital care through the funding of hospital uncompensated care, the pricing equity of hospital payments, the creation of a predictable and stable financial system for hospitals, and holding hospitals, payers and the Commission itself publicly accountable for achieving the key policy goals.

The federal approval of the state's Medicare Waiver, which ceded the control of hospital rates paid by both Medicare and Medicaid to the HSCRC, allowed the state to create a set of broad and consistent financial incentives to induce Maryland hospitals to control their operating costs and achieve the other explicit health policy goals. Maryland was one of five states (including Massachusetts, New Jersey, New York and Washington) that were granted such a federal.³⁵ In addition to these all-payer and Waivered states, hospitals in the areas of Rochester and the Finger Lakes in upstate New York also implemented highly successful all-payer hospital rate setting demonstrations (with a Waiver from Medicare and Medicaid payment methods) on a regional level from 1980 to 1987.^{36, 37}

Per the authority of Maryland's Medicare Waiver, which was finalized on July 1, 1977, along with the state's previous legislation to control hospital prices paid by private insurers passed in 1971, the HSCRC had the legal ability to set and control hospital payments for all payers operating in the state. To retain its Waiver, the state had to demonstrate to Health Care Financing Administration (HCFA), the federal agency that administered the national Medicare program, that Maryland's system reduced the rate of growth of Medicare inpatient payments per case over time. The rate regulatory authority established by Maryland's state law and the Medicare Waiver created the nation's first "all-payer" hospital rate setting system which enabled the HSCRC to successfully control hospital price and spending growth and develop a series of other complementary policies and programs, several of which are discussed in detail in this report.

Following the approval of Maryland's Medicare/Medicaid Waiver in 1977, the state experienced significant success in controlling the growth in hospital prices and achieving its other policy goals. The system was most successful during the period 1976 to 1992, when the HSCRC lowered Maryland hospital spending per adjusted admission (a metric encompassing both

inpatient and outpatient services) from 25% above the US average down to 11% below the US average. Maryland's performance in controlling hospital volume growth and per capita hospital spending was also quite favorable during this period.³⁸ Since that time, Maryland's cost containment performance relative to the rest of the U.S. has been more mixed.³⁹ However, Maryland is still regarded as an example of what a hospital rate regulated system can accomplish in terms of improved affordability, hospital cost control, expanded access to needed hospital care, in a stable and predictable reimbursement environment.

The Maryland system has evolved over the past five decades from a Fee-for-Service (FFS) payment system regulating the "unit" rates of some 70+ different hospital revenue centers,ⁱⁱ to the use of volume adjustments on FFS payments to which counteracted the financial incentives implicit in FFS payment that reward hospitals for increasing their service volumes, and eventually to the use "Fixed" Hospital Global Budgets (HGBs) beginning in 2009. The HSCRC also developed several useful complementary rate adjustments and policy programs (which we will discuss later in this document) that helped the Commission to achieve its core policy goal to limit hospital price and spending growth while also improving patient access, pricing equity, financial predictability and overall accountability of the rate setting system.⁴⁰

It should be noted that while the literature demonstrates that state-based All-Payer rate setting systems (made possible by the approval of a Medicare Waiver) implemented in Maryland, New York, New Jersey and Massachusetts demonstrated the greatest cost containment success during the ten years from 1976 to 1985. However, other states such as Wisconsin, Maine, Connecticut, and West Virginia operated hospital rate setting programs that controlled the hospital rates paid by private insurers. These systems also experienced success in controlling the payment levels for privately insured patients from 1974-1992 and thus demonstrate that states can create effective price control systems to improve the affordability of hospital care the privately insured.⁴¹

Although all-payer rate setting systems have been most effective in controlling hospital spending growth, as discussed, the prospects of obtaining approval of a Medicare Waiver similar to the Waivers approved for the five all-payer states, Maryland, New York, New Jersey, Massachusetts and Washington, in the 1970s and 1980s, are not favorable under the present federal administration. Thus, in our view, states should move forward incrementally with rate regulatory programs that limit or "cap" private sector hospital prices. This approach will both minimize

ii Examples of hospital service centers include: 1) the daily care areas, such as the Medical/Surgical center or Intensive Care Unit (ICU) – a rate per hospital day. The HSCRC also set a rate per unit of service for the operating room (OR) and anesthesia – a rate per minute in the OR. Other service centers include radiology, lab, or x-ray (a rate per Relative Value Unit). On the outpatient side, the HSCRC set a rate per minute for ambulatory surgery or a rate per visit to the emergency room or hospital clinic.

disruptions to the hospital delivery system and allow states to gain valuable experience in organizing and implementing an effective rate regulatory apparatus. These experiences can later be parlayed into a broader all-payer system if future federal administrations come to power that support a regulatory approach to controlling hospital price and spending growth.

Another advantage to this strategy is that a rate regulatory agency that regulates private insurer hospital payments can apply various beneficial rate-setting adjustments, such as the VAS, which effectively controls the growth of low-value and unnecessary hospital care. We will discuss the dynamics and incentives of standard FFS payment systems, and how a VAS mechanism greatly diminishes the perverse financial incentives to promote the provision of low-value and unnecessary hospital services.

B. Maryland's Original Rate Setting Structure – A Fee-for-Service (FFS) System

Per the requirements of its original statute, Maryland hospitals reported their utilization, cost and financial data to the Commission. The HSCRC made use of these data to establish the initial or “base rates” for each Maryland hospital. As noted, the Commission first established a set of base rates for each hospital per unit of volume across some 70 different hospital service centers for both inpatient and outpatient hospital care. For instance, the HSCRC set a regulated rate per day in the Medical/Surgical Unit or Intensive Care Unit (ICU), a rate per minute of Operating Room time, a rate per diagnostic test (such as a CAT or MRI scan), a rate per emergency room or clinic visit, etc.

These base rates were established with a consistent “markup” over HSCRC approved hospital cost per unit of service in these same service categories. Thus, just like Medicare prices, these initial Maryland hospital rates reflected hospital relative operating costs. Economic theory supports the conclusion that the establishment of prices that reflect the cost of production will result in more efficient resource allocation and the production of more economically optimal results. The federal Medicare IPPS and OPPS similarly establish regulated prices that reflect the relative costliness of services. Both the Maryland and Medicare pricing systems are more equitable and rational than the current system of negotiated private insurer hospital prices, which is distorted by the imbalance in negotiating power of hospitals relative to insurers. As we will discuss, we advocate that states attempting to establish hospital regulated payment systems for private insurers make use of Medicare's pricing system to eventually transition to a set of regulated base rates that are based on a multiple of Medicare prices. This approach will help states develop a rate regulatory system that is more equitable and economically rational, similar to both Medicare's and Maryland's rate setting approach, which set regulated prices that reflect relative operating costs.

Table 1 illustrates the HSCRC's hospital itemized rate setting structure for select inpatient and outpatient revenue centers. The purpose of our illustrating this payment structure is to emphasize the point that the early Maryland system was a quintessential FFS payment system with a regulated rate per hospital service, similar to the Medicare hospital Inpatient and Outpatient payment systems.

Table1: Example of the HSCRC's Original and Current Hospital Rate Structure

		A	B	C = A x B
Inpatient Revenue Centers	Unit Volume	HSCRC Rate	Volumes	Total Charge
Medical Surgical Unit	Per Hospital Day	\$2,000	5	\$10,000.00
Intensive Care Unit	Per Hospital Day	\$3,500	1	\$3,500.00
Laboratory	Per Relative Value Unit (RVU)	\$6.50	14	\$91.00
Anesthesia	Per Minute in the OR	\$12.00	220	\$2,640.00
Operating Room	Per Minute in the OR	\$15.00	240	\$3,600.00
CAT Scan	Per RVU	\$12.50	20	\$250.00
X-Ray	Per RVU	\$7.50	25	\$187.50
Total Inpatient Charge				\$20,268.00
Outpatient Revenue Centers				
Clinic	Per Visit	\$90.00	1	\$90.00
Emergency Room	Per Visit	\$250.00	1	\$250.00
Physical Therapy	Per Therapy	\$75.00	3	\$225.00
Total Outpatient Charge				\$465.00

To implement the payment system with the least amount of disruption to Maryland hospitals and payers, HSCRC initially used the actual historical relative costs levels of Maryland hospitals in the early 1970s to set its initial hospital rates. The HSCRC quantified the cost of production for each hospital service and applied a small and uniform markup above unit costs with an initial adjustment to reduce hospital rates in excess of the 80th percentile by service category. Beyond that initial adjustment, the HSCRC set rates based on status quo hospital costs across all payers. Medicare, Medicaid, and certain private payers that offered private insurance pol-

icies that the HSCRC considered to be substantial, available and affordable coverage (SAAC) received a 6 % discount from HSCRC approved rates.ⁱⁱⁱ

Beyond these limited discounts for public and some qualifying private payers, the Maryland hospitals payment levels for public and private payers have always been very closely aligned, creating what has been considered to be the most equitable and economically rational payment system in the U.S. with only minor variations between the prices paid by public and private insurers and regulated hospital prices that reflected the relative costs of different hospital services.⁴² This is in stark contrast to the hospital payment system in other states where commercially negotiated hospital payment levels are 2 to 4 times those of the Medicare program and negotiated prices paid by insurers are highly variable and largely reflect the negotiating leverage of hospitals over private insurers. Thus, per the terms of the original Medicare and Medicaid Waiver the HSCRC also established regulated prospective prices for governmental payers that were only slightly lower than rates set for commercial and self-responsible patients. And these prices were economically rational in that they reflected relative production costs and were not distorted by variations in hospital and insurer negotiating power.

It should be noted that the development of Maryland's initial or base rates required a significant data collection and analytic effort that involved: 1) requiring hospitals to allocate operating costs to each defined hospital service center (i.e., medical/surgical, operating room, ICU, Clinic, etc.) in a fashion prescribed by the HSCRC; 2) setting a price per service center with a uniform mark-up over hospital reported and HSCRC approved costs per unit of service; and 3) disallowing service center prices in excess of the 80th percentile level. This entire process took the HSCRC and its staff 3 to 4 years to complete.

However, as we will discuss, states can now establish a set of equitable and economically rational regulated base prices by referencing them to a multiple of current Medicare inpatient and outpatient prices and then transitioning to these base rates over time. This approach would allow states to more rapidly develop a system of regulated hospital payment levels that are reflective of actual costs than the current array of privately negotiated hospital prices.

iii The payment levels for governmental payers were set at a 6 % discount to rates established for hospitals overall per a negotiated agreement with the Health Care Financing Administration in 1977. This public payer discount has remained in effect since the Medicare/Medicaid Waiver was negotiated in 1977 creating what is recognized as the equitable hospital payment system in the U.S. Although the public payer discount was increased to 7.7% in 2018, unlike all other states where private insurer hospital payments are 200-400 % of Medicare hospital prices, most private payers in Maryland pay approximately 108% of comparable Medicare hospital prices.

C. Maryland's Favorable Medicare Waiver

It should also be noted that Maryland's inherent equity in hospital rates paid by public and private insurers was also a function of Maryland's very favorable Medicare Waiver agreement, which allowed the state to retain much higher historical Medicare payments than existed in other states at the time the Waiver was negotiated in 1977. At that time the rates the Medicare program paid Maryland hospitals were approximately 30% higher than national average Medicare hospital payment per Medicare equivalent admission. In order to promote Maryland's experimental hospital rate setting design, the Medicare agency agreed to continue to pay these enhanced payment levels to hospitals as long as Maryland met a financial rate of growth test that demonstrated that the growth in Maryland Medicare payments per hospitalization did not exceed the growth in Medicare hospital payments nationally, cumulatively over time. This highly favorable agreement effectively locked-in these enhanced Medicare hospital payment levels for the state's acute care hospitals.

The other advantage of the state's Medicare Waiver is that it established a consistent set of financial incentives for all payers participating in the Maryland system and the development of what was in effect a system of "flexible" HGBs, making use of the HSCRC's innovative VAS. As we will discuss later, the current federal administration and the Centers for Medicare and Medicaid Innovation (CMMI) are planning to terminate Maryland's Medicare Waiver in the context of a new rate setting model that the federal administration plans to impose on the state, CMMI's Achieving Healthcare Efficiency through Accountable Design (AHEAD) program. We will discuss the implication of this planned termination of Maryland's Medicare Waiver and the potential implications of this large change in the regulatory authority of the HSCRC (i.e., the loss of rate setting authority over Medicare hospital rates).

While Maryland's Medicare Waiver was highly beneficial to the state in terms of allowing Maryland to regulate rates across all payers and create a consistent and uniform set of incentives for hospitals for each payer category, the enhanced payment levels that Maryland enjoyed from Medicare and Medicaid under its unique Waiver cannot be duplicated today because both CMS and state Medicaid programs will refuse to increase their payment levels to close the substantial gap that now exists between public and private hospital prices. However, states should still pursue Medicare Waivers in the future, when a federal administration more favorable to government rate setting is elected to office, because states implementing all-payer hospital rate setting systems can still impose consistent financial incentives across all-payers even with the existing public and private payer price disparities. The key for states moving forward will be to work with these status-quo circumstances and implement their rate control authority, along with the use of a Volume Adjustment (i.e., a VAS) to control hospitals incentives to over-

produce services. Such a system can still be extremely effective in controlling hospital price and spending growth across all payers with the possibility of gradually addressing these existing public/private payer payment differences over time by gradually reducing private sector payment levels relative to Medicare and Medicaid payment.

Regardless, given the federal aversion to rate setting in general and likely opposition to the approval Medicare Waivers in the near future, we suggest that states interested in pursuing rate setting strategies implement models designed to control private insurer price and spending growth initially. As we will discuss, these states may make use of RBP Caps benchmarked at a multiple of comparable Medicare prices, to establish a more equitable and economically rational set of regulated hospital base rates (i.e., a single regulated payment for each hospital service).

D. The HSCRC's Response to Hospital Volume Growth under FFS Payment

Once the Commission established its base (i.e., first year or initial) rates, it had the legal authority to control the annual rate update applied those initial payment levels to cover normal input cost inflation experienced by hospitals. In the early years of the Commission, the HSCRC approved annual hospital rate updates at levels that were lower than historical rates of hospital price growth to improve the affordability the hospital system. However, during these initial years the Commission had difficulty controlling the growth in overall hospital spending, because hospitals responded to this system of regulated and constrained unit rates by greatly increasing the volumes of services they provided.

For example, while the HSCRC might constrain the annual growth in HSCRC-approved unit rates to, say 5.0%, it found that spending on hospital care per capita increased at 7.0% to 10% per year because hospitals either increased the intensity of their care (i.e., providing more treatments or units of service per care episode) or they simply admitted more patients and increased the numbers of diagnostic tests, therapies or other services provided. Despite the best efforts of the HSCRC, hospitals' response to restrained price updates by increasing hospital volumes drove up Maryland hospital spending per capita.⁴³

1. Why FFS Payment Arrangements Induce Hospitals to Over-Produce Care

In investigating the unfortunate side-effect of FFS payment to induce the over-provision of hospital services, the HSCRC tried to gain insight into the cost structure of hospitals and why FFS payment rewarded them for increasing volumes and penalized them for reducing volumes. In

the mid-1970s the Commission performed surveys and analyses and determined that large and medium-sized hospitals had a cost structure that was approximately 40% fixed (i.e., buildings, equipment, and staffing/standby costs) and approximately 60% variable (i.e., costs that varied with volume including increased staffing, supplies, drugs and movable equipment, etc.). Given these proportions of fixed and variable costs, hospitals have long realized that they could generate additional profit margins by increasing the volume of services they provided, whether these services were needed or not. This is because when paid under an “itemized” FFS payment systems hospitals receive full payment for any new service above baseline (i.e., previous year’s) volume. This meant that every new case, diagnostic test, ED Visit, etc. contributed 100 cents on the dollar to a hospital’s cash flow when the variable, or incremental marginal cost to produce the new services was only 60 cents on the dollar.

Different service categories have different variable costs proportions. Certain service centers are such as drugs and supplies are highly variable with volume, whereas other centers such as the ICU may have higher fixed cost and lower variable cost percentages. However, on average hospitals stand to generate significant surplus revenues because their incremental payments under FFS greatly exceed the incremental cost they incur to produce these new services.

This was the dynamic that completely undermined the authority of the HSCRC to control overall hospital spending growth. In more common terms, when the HSCRC constrained the Maryland hospitals’ annual rate update, the hospitals gamed the system by “making it up on volume.”^{iv} These overall dynamics are also responsible for the disdain of most healthcare policy makers for FFS payment structures and desire to implement so-called Value-Based Payment models that purportedly reward “value over volume.”⁴⁴ Unfortunately, these aspirations, of rewarding value and not volume have not been realized under the voluntary and ineffective Value-Based Payment (VBP) models developed by the CMMI and private insurers.^{45,46,47}

2. FFS Payment also Discourages Patient Care Management and the Reduction of Unnecessary Volumes

While FFS provides strong financial incentives for hospitals to increase volumes unnecessarily, FFS also strongly discourages hospitals from reducing unnecessary volumes. This is because when a hospital loses volumes, it loses that 100% incremental payment for each eliminated service. Facing a reduction in volume, a hospital can of course eliminate some or all variable costs

^{iv} Other health services researchers have also observed the dynamics and incentives of FFS systems including Harold Miller a noted healthcare quality and payment expert. See Harold Miller, *Regional Insights: How Hospitals Are Driving Up the Cost of Health Care*, PITTSBURGH POST-GAZETTE, Oct. 5, 2013, <https://www.post-gazette.com/business/biz-opinion/2013/10/06/regional-insights-how-hospitals-are-driving-up-the-cost-of-health-care/stories/201310060112>.

associated with the lost services, but its fixed costs remain and the hospital will incur a reduced profitability because of the elimination of the service means elimination of funds to pay for the hospital's fixed costs.

Thus, hospitals lose money overall when volumes decline because they lose 100 cents on dollar for each eliminated service, while they still must fund any remaining (and now unfunded) fixed costs. This dynamic is particularly troubling for hospitals experiencing a declining patient population. Many facilities in rural or underserved areas that are experiencing unfavorable declines in their patient populations and Patient Service Area (PSA) demographics struggle financially because of this dynamic, as patient volumes decline. This dynamic also hinders the efforts of other entities, such as managed care entities or ACOs, that face separate incentives to reduce unnecessary care because hospitals strongly resist the efforts of such entities to reduce volumes.

These overall dynamics of FFS payment and the specifics of hospital cost structures, are in large part why hospital-led Accountable Care Organizations (ACOs) have not been as successful as physician-led ACOs.^{48, 49} A hospital-led ACO may generate small amounts of shared savings associated with utilization reductions, however, these shared savings are insufficient to offset the losses they incur due to their remaining fixed costs, which are unfunded when volumes decline.

E. HSCRC Introduction of a Volume Adjustment System (VAS) to Control Volume

In response to these circumstances, and the noted weaknesses of itemized FFS payment systems, the HSCRC introduced an adjustment referred to as the Volume Adjustment System (VAS) as an overlay adjustment that modified the revenues Maryland hospitals could generate or “keep” after adjusting for annual changes in hospital volumes. When volumes increased, the VAS reduced a hospital's future rates by the excess of marginal revenues received over marginal costs incurred due to increased hospital volumes. The mechanics of this adjustment were handled by the HSCRC during the course of each year, adjusting unit prices down so that a hospital's marginal revenues earned from new volumes, roughly equaled their marginal costs of production.

Conversely, when a hospital's volumes declined, the HSCRC added money to the hospital's rates equal to the Commission's estimate of the hospitals' percentage of fixed costs associated with the lost volumes. This adjustment to hospital rates was also handled by the HSCRC during the course of a year as volumes changed. In addition to supporting smaller, rural hospitals and hospitals operating in lower income and underserved areas, that were vulnerable to uncon-

trolled volume decreases, this adjustment removed hospital resistance to efforts by managed care companies and ACOs to reduce unnecessary and low-value hospital care.

Overall, the Commission's VAS (a payment innovation also later adopted by other state-rate setting states) was an extremely effective "overlay" mechanism to the HSCRC's core rate setting methodology. The VAS effectively neutralized FFS incentives to inappropriately "churn" volumes, while at the same time it supported hospitals, particularly small and rural hospitals, by funding hospital fixed costs, when volumes declined.⁵⁰

As noted, this approach, use of an itemized unit rate FFS payment system plus a VAS, was the Commission's core rate-setting methodology from 1976 to 1992. The VAS proved to be very effective allowing the HSCRC in meeting its primary policy directive: to reduce hospital price and overall payment growth per case and per capita, while at the same time supporting the financial stability and predictability of Maryland hospitals. Prospective rate setting provided strong incentives for hospitals to economize on their per service operating costs, while the use of the VAS counteracted the incentives of FFS payment to unnecessarily increase hospital services. This system of prospectively regulated and fixed unit rates with a VAS adjustment, along with the approval of annual rate updates below the rates of growth of hospital prices nationally, allowed Maryland to dramatically outperform the U.S. on both per case and per capita basis from 1976 to 1992.⁵¹

Unfortunately, in response to complaints by hospitals in what was perhaps an example of regulatory capture (a situation where a regulated industry is able to exert too much influence over its regulators), the HSCRC greatly diluted the volume restrictions of the VAS in the early 1990s⁵² and eliminated the VAS entirely in 2001.⁵³ These decisions proved to be highly detrimental to the cost containment capabilities of the HSCRC, because as should have been predicted, the elimination of the VAS, induced hospitals to greatly expand the volumes of care they provided.⁵⁴

In reaction to this explosion in hospital volumes, beginning in 2008 the HSCRC staff reimposed a diluted version of the VAS. In 2009, the HSCRC also convinced 10 small rural hospitals to participate in a demonstration project that set Fixed HGBs, a model that applied both a rigid revenue cap and floor, such these hospitals realized virtually no increase in revenue when volumes increased and also guaranteed hospitals their budgeted revenues even when volumes declined.

The experimental Total Patient Revenue (TPR) system of fixed budgets for 10 rural hospitals ran for five years with mixed results.^{55,56} In retrospect, it appears that hospital managers have

grown accustomed to the dynamics of FFS payment systems, which allows for the generation of surplus revenues and profits when hospitals engage in expansionary tactics to grow patient volumes. This expansionary tendency of non-profit hospital managers has been reinforced by decades of operating under in a reimbursement environment dominated by FFS payment systems. Non-profit managers' expansionary mentality may also be a function of the fact that these managers are not pressured, as they are in the for-profit hospital sector, to provide consistent and increasing returns the equity investments of their for-profit owners. Lacking this type of fiscal oversight and pressure, non-profit hospitals engage in so-called "Empire Building," re-deploying excess revenues on activities that promote their power and influence in their service areas and a continuous cycle of expansionary strategies and growth of hospital volumes.^{57,58}

Despite these disappointing results, the fixed budget TPR structure was eventually used as the prototype for a broader payment demonstration project adopted by Maryland for all hospitals in the state. Beginning in 2014, Maryland entered into its All-Payer Model and agreement with the Centers for Medicare & Medicaid Services (CMS) and Centers for Medicare and Medicaid Innovation (CMMI). This agreement allowed the State to transition to a system of Fixed Budgets for all 48 acute care hospitals. In later sections we will discuss the pros and cons of the HSCRC's fixed HGBs compared to a system of more "flexible" HGBs which can be implemented in an all-payer basis with the use of a VAS.

F. Elimination of Maryland's All-Payer Waiver under the AHEAD Program

1. A New Agreement with CMS/CMMI and Plans to Cost-Shift to Private Insurers

Under Maryland's original Medicare and Medicaid Waiver agreement, established in 1977, the Medicare program agreed to lock in what was at the time Medicare payment levels in Maryland that were approximately 30% higher than payments to hospitals in other states. These enhanced federal payments were kept in place under the terms of Maryland's original Waiver agreement as long as Maryland hospital Medicare payments did not grow faster than US Medicare hospital payments nationally, on a cumulative basis from 1980 to a current period.

However, with the change in the federal administration in 2025, and the TCOC Model set to expire in December 2026, Maryland and its Medicare Waiver agreement came under increased scrutiny, with the Trump Administration calling for the premature termination of four CMMI alternative payment models, including the Maryland TCOC Model, by December 31, 2025.⁵⁹ Based on analyses of published evaluation reports and financial forecasting, CMS estimat-

ed savings of nearly \$750 million by ending the four selected models early.⁶⁰ As a result of the termination of Maryland's TCOC Model, Maryland signed an agreement with the federal government to continue hospital rate setting, in the context of the CMMI's Achieving Healthcare Efficiency through Accountable Design (AHEAD) Model. Maryland is scheduled to be the AHEAD Model's first participating state which begins in 2028 and is scheduled to run through December 31, 2035.⁶¹

Per this agreement and starting in the calendar year 2026, Maryland must increase Medicare hospital and nonhospital Medicare savings relative to a base year of 2023 by approximately \$435 million annually. In addition, starting in 2028 the state will lose its rate setting authority over Medicare hospital payment levels, an authority which has been in place for nearly fifty years.⁶²

Reduction of Medicare's enhanced payments to Maryland hospitals, (payments authorized by the state's original Waiver) may have profound implications for privately insured and self-funded ERISA plans operating in the state. To shield Maryland hospitals from the full weight of CMS hospital rate reductions the HSCRC announced it planned to increase hospital rates paid by private insurers by \$87 million annually beginning in 2028. The HSCRC estimates that the increase in the hospital rates paid by private insurers will increase private health insurance premiums by approximately 2.55% by 2032, with the largest increases starting with 0.6% in 2028. These private insurer premium increases also include hospital rate increases that are designed to subsidize Medicare Advantage plans operating in the state, because these plans have been losing money due to Maryland's elevated Medicare FFS hospital payments.

The state is currently experiencing a budget deficit, which is projected to grow substantially in coming years due in large part to cuts in federal support for Medicaid. Thus, in an effort to reduce the state budget gap Maryland legislators will likely require the HSCRC to lower Medicaid hospital payments, which have been kept much higher than Medicaid payments in other states per the terms of Maryland's Medicare Waiver agreement. This move would force the HSCRC to increase the hospital rates paid by private insurer and self-funded ERISA plans even more. Similar rate increases to private insurer and ERISA accounts in New Jersey and New York in the mid- to late-1990s prompted a legal challenge from a group of self-funded plans in both states. Although these challenges were upheld at a circuit court level, they were eventually overturned by the Supreme Court. These challenges eventually led to both states' decisions to terminate their state hospital rate setting systems in the 1990s.⁶³

2. Potential Future Cost-Shifts to Private Payers and Increases in Insurer Premiums

The announced reductions in Medicare payments to Maryland hospitals under the new AHEAD Model, while severe, are not large enough to eliminate the entire amount of the enhanced payments that Maryland has enjoyed from Medicare since the approval of the Medicare Waiver in 1977. Thus, it is unclear if the projected magnitudes of Medicare hospital payment reductions beginning in 2028 will end there. Maryland's enhanced Medicare hospital payments under its Medicare Waiver were estimated by RTI in its evaluation of the Maryland Model to be 33 to 41% for inpatient services and 55 to 62% for outpatient services.⁶⁴ Based on these RTI estimates, the value of Maryland's Medicare Waiver to the state could be as high as \$2.2 to \$2.5 billion per year on a base of an estimated \$8 billion in total Medicare hospital payments as of 2014.^v This enhanced Medicare payment persisted from 2014 on during the two stages of the new Maryland Demonstration with CMS, the Maryland All-Payer Model and the Total Cost of Care Model. If CMS decreases Medicare payments to levels paid under federal IPPS and OPPS methodologies, the state could face Medicare payment reductions ranging from 28% to 31% (i.e., \$2.2 to \$2.5 billion eliminated enhanced Medicare payments divided by approximate Medicare hospital payments of \$8 billion annually).

Elimination of the full value the enhanced payments from Medicare will require a commensurate increase in the rates paid by private sector insurers, to make Maryland hospitals "whole" for this governmental payment reduction. Thus, private insurer and self-funded ERISA plan hospital payments could rise as much as 31 to 36% (i.e., the \$2.2 to \$2.5 billion reduction in Medicare hospital payments as a proportion of estimated total private sector hospital payments of about \$7 billion per year, per 2014 Maryland Medicare and overall hospital revenues). If Maryland Medicare hospital payments are reduced to equal national IPPS and OPPS payment levels, the "cost-shift" to private insurers and self-funded plans could result in 9 to 11% increases in private sector insurance premiums over time.

The differences in these estimates of the potential impact on private insurers in Maryland and the impacts summarized by the Maryland Department of Health in January 2026 are not explained. However, private insurer healthcare premiums in Maryland, which were already projected to go up due to premium increases required to cover cuts in tax credits for ACA market-

^v In the above example, per the results of the RTI analysis Maryland hospitals would have been paid \$5.5 to \$5.8 billion per year under the national IPPS and OPPS. However, per the terms of the state's original Medicare Waiver, Maryland hospitals were roughly paid \$8 billion per year for Medicare inpatient and outpatient services, representing "enhanced" (i.e., in excess of amounts that would have been paid to Maryland hospitals under IPPS and OPPS) Medicare payments) of between \$2.2 and \$2.5 billion per year on a base of approximately \$20 billion in total Maryland hospital revenue from all payers.

place, are likely to increase even more in coming years. And, should Maryland Medicaid pass legislation to allow the Medical Assistance program to cut the rates it pays hospitals to offset growing budget deficits, private insurer rates will also increase to offset these Medicaid payment reductions.

In the meantime, the HSCRC will maintain its rate setting authority over hospital rates charged to non-Medicare patients and will transition to CMS's hospital quality reimbursement methodologies. Otherwise, the HSCRC will continue other aspects of its hospital rate setting system, such as its system of funding Maryland hospital uncompensated care. Uncompensated care funding is also vulnerable to modification or outright elimination, however, because with the elimination of the HSCRC's rate setting authority over Medicare hospital payments, the state can no longer spread these costs across payments made by the Medicare program. If Maryland were to spread these costs across a smaller regulated rate base, including just Medicaid and private sector hospital payments, the assessments required to fund this burden will increase proportionate to the loss of Medicare in the Maryland's regulated rate structure. This scenario represents yet another huge pressure point for the Maryland rate system.

Under the new agreement between the HSCRC and Medicare, the Commission's Quality Pay-for-Performance Quality Incentive programs will also be eliminated, instead transitioning the state to the federal CMS Value-Based Payment program, the Hospital Readmission Reduction Program and the Hospital Acquired Condition Program, as of 2028. A later section of this report describes the HSCRC's current quality incentive programs and compares them to similar programs implemented and operated by CMS for acute care hospitals outside of Maryland. These events represent significant changes to the Maryland hospital rate setting system and although intended to preserve aspects of the state's rate setting program by retaining HSCRC authority over setting rates paid by Medicaid and private insurers, may well lead to the dissolution of Maryland's entire hospital rate regulatory system.

II. Evaluation of Fixed Hospital Global Budgets in Maryland and Internationally

A. Overview

The previous discussion of the early experiences of the Maryland rate setting system was intended to demonstrate that the early rate setting methodologies adopted by the HSCRC in the period 1976-1992 created the Commission's most effective cost constraint system, while achieving the Commission's other key policy goals. The combination of rate setting authority to control the price growth of hospital services, along with the VAS overlay adjustment which

addressed the key weaknesses in FFS payment created a very effective price and spending control system. As we have argued, this system effectively created a system of “flexible” HGBs which we believe had significant advantages over the Commission’s fixed HGB model.

Unfortunately, as noted, Maryland abandoned the VAS in 1992 and 2000, which led to an explosion in hospital volume growth in the state. We believe that the Commission’s eventual implementation of largely fixed HGBs created disproportionately strong incentives for hospitals to stint on and attempt to shift care to non-hospital providers. As we discuss below, these issues were also experienced in other countries with the implementation of fixed budgets in the late 1990s and early 2000s in Europe and other developed countries.

B. Problems with the Implementation of Fixed HGBs in Other Countries

Despite the hope of Maryland officials that hospitals under Fixed budgets would actively manage patient care and invest in efforts to improve population health without stinting on or shifting care, there was significant evidence that hospitals in Canada, France, the United Kingdom, Ireland, Finland, Germany, and the Netherlands responded to the incentives of their own fixed budget payment structures for hospital care by restricting care, instead of investing in population-health initiatives to keep patients healthy. This evidence should have raised concerns in Maryland as to potential unintended consequences of Fixed HGBs.

1. OCED Country Experience with Fixed Hospital Budgets

Prior to 2000, Canadian hospitals had been historically funded by way of a global budget.⁶⁵ While rigid hospital budgets, which did not vary up or down with fluctuations in patient volumes, did reduce the growth of overall hospital spending, there is significant evidence that these budgets also contributed to increased wait times for elective and emergent care in the country. This result prompted some provinces to move away from fixed budgets to a payment system referred to as “activity-based funding” (ABF), another term for FFS payment, but using Diagnostic Related Groups (DRGs) for inpatient payments.⁶⁶ France also operated a fixed hospital global budget system (the “dotation globale de financement” or DGF) from 1984 until the early 2000s. Again, while France’s hospital global budgets were associated with slower growth in hospital spending, the country eventually also largely replaced their global budgets (which also included payments for hospital-based physicians) with a similar activity-based funding system using DRGs for inpatient payments, because fixed budgets contributed significantly to the country’s extremely long wait times for elective care. A similar dynamic and set of experiences contributed to Germany’s move away from fixed hospital budgets to ABF in 2003-2004.⁶⁷

The Netherlands provides another clear example of progressive dissatisfaction with a system of fixed budgets for hospitals. From 2000 to 2006 the country implemented a major change in the financing of hospital care, which switched from fixed budgets to ABF. As a result of this payment policy shift waiting times for needed hospital care are no longer a significant policy issue, as they were in the period prior to 2000.⁶⁸

Researchers in other developed countries found that paying hospitals fixed budgets for all care delivered during a year disconnected hospital payment and earned revenues from the volume and quality of care delivered. This disconnection of funding from patient treatment made hospitals complacent about treating patients, reducing their patient throughput and treatment activity levels and increasing wait times for care.⁶⁹ Evaluations of this payment model also found that fixed budgets caused hospitals to engage in risk selection where lower-cost patients were prioritized for treatment. In general, since global budgets do not provide hospitals with additional funding for the treatment of new patients, there is a lack of incentives for hospitals to provide a higher volume of care, treatment of superior quality, or operate in a “patient-focused manner.”⁷⁰ Researchers also found that fixed budgets in OECD countries contributed to a lack of transparency regarding the treatment of patients relative the payment hospitals received. Budgets were based on the prior year’s budget adjusted incrementally, rather than on any measure of actual work performed in treating individual patients.⁷¹

The evidence from other developed countries is clear. Most have moved away from using global budget systems because of concerns about hospitals stinting on care resulting in long waiting times for hospital services and a general lack of responsiveness and accountability for the care that hospitals provided. In response most nations have modified or replaced global budgets with “activity-based” payment systems that incentivize increased volumes of care.

2. OCED Return to FFS Payment and Incorporation of a Volume Adjustment

The story of hospital payment in OECD countries does not end here, however. Following the reversion back to ABF (a form of FFS payment using DRGs) in the early 2000s, OCED countries making this shift saw more rapid increases in hospital volumes (as intended), but these increases raised concern about unaffordable increases in spending on hospital care. In an attempt to limit this more rapid growth in hospital spending, a number of OECD countries have adopted a payment mechanism similar to the VAS, that limits payments, above certain pre-defined volume levels. This mechanism, known as “tapering payment,” recognizes that hospitals with large volumes can achieve economies of scale and reduced average costs per case. Under a Tapering Payment approach, above a pre-defined level of hospital volume, the hospital is expected to have covered all its fixed costs and consequently should be paid only for its variable

costs.⁷² This type of adjustment is very similar to the incentives that hospitals face under a VAS approach. The more the world changes, the more it stays the same!

Per the evidence presented in this report, it appears that Maryland, too, is experiencing many of the same negative side-effects of adopting an excessively rigid payment model with unreasonably strong incentives to restrict hospital care. The following sections document increases in waiting times for hospital ER services, the shifting of care to non-hospital providers (which results in double payment from payers), and other negative impacts of Maryland's Fixed HGBs.

C. Weaknesses of the Maryland Fixed Hospital Budget Model

Maryland's hospital All-Payer and TCOC model demonstrations were heralded as being among the CMMI's most successful payment demonstrations. Despite the lack of success of most of the CMMI's experimental and Value-Based Payment models (only 6 of the 18 CMMI payment models analyzed by Avalere Health generated savings) the Maryland All-Payer Model saved CMS approximately \$975 million, and the Maryland TCOC Model contributed an additional \$689 million in savings over the period 2014 - 2024.⁷³

Although these savings seem impressive, they amount to less than 2.0% average annual savings for the Medicare program over the two program periods 2014-2019 and 2020-2023. And as noted, these savings results occurred while the Medicare program was paying approximately 30% higher fees in Maryland than the program paid hospitals on average nationally. It could be argued that the generation of savings under these models was perhaps facilitated by the existing large "overpayments" provided by CMS to Maryland during this time. And certainly, after these savings for Medicare were generated the federal government continued to pay significantly more in Maryland for hospital and non-hospital care than in any other state. Despite the savings amounts generated by these two Maryland models, we believe that the HSCRC's use of nearly 100% Fixed HGBs had several negative side effects.

1. Fixed Budgets Use of Disproportionately Strong Financial Incentives to Reduce Volumes

While Fixed HGBs correct the flaws of the FFS Payment incentives that induce hospitals to unnecessarily increase hospital services, this Fixed payment model does so in an extreme way, creating disproportionately strong incentives to reduce service use any way possible.

The Maryland hospital HGBs, which were first implemented for 10 rural hospitals starting in 2009 and ultimately for all Maryland hospitals from 2014 to the present, set both a rigid cap

and floor on all revenues the hospital generated during a year. Once the HGB was established, a hospital could generate virtually no additional revenue, even if it experienced large volume increases. Similarly, if patient volumes declined for any reason (i.e., due to better care management, reductions in hospital volumes due to stinting on care or shifting of care to non-hospital providers) the hospital's total annual revenues did not decline. Similar to the objectives associated with the earlier TPR rural hospitals, it was hoped that the implementation of rigid caps and floors on hospital revenues would encourage hospital administrators to pursue care management activities and additional investments in increased primary/preventive care and other efforts to improve the overall health of the populations they served. However, as was the case with the TPR Hospital Experiment, Maryland hospital investments in population health initiatives were at best mixed.⁷⁴

Although the HSCRC included small adjustments up and down to Maryland hospital HGBs, associated with changes in patient demographics in a hospital's service area, once the HGB Fixed cap was set for the year, a hospital received virtually no additional increase or decrease of revenue tied to volume change. As we note in the following section, the inherent weaknesses of rigid HGBs for Maryland hospitals were factors that officials and researchers in other developed countries had recognized previously during the wide-spread use of fixed hospital budgets in other countries.

2. Concerns Regarding Maryland's Persistently High ER Wait Times

Although there is an absence of studies on elective care wait times in Maryland following the adoption of their Fixed HGBs, there is evidence that hospitals in the state have reduced staffing in their Emergency Rooms (ER), perhaps in an effort to cut operating costs, which may have led to a reduction in ER throughput.⁷⁵ By 2017, Maryland had ER wait times that were the second highest in the nation with a median wait-time for a hospital bed that was in excess of 6 hours on CMS Hospital Compare measure ED-1b (time from ED arrival to admission) and remaining at this level in recent years.^{76, 77} Maryland also had much higher wait times for the other two ED wait time measures ED-2b (Decision to Admit until Admission for Admitted Patients) and OP-18b (Arrival to Discharge from ED). Maryland's extremely long ER wait times actually increased from 2019 to 2024, prompting significant concern in the Maryland legislature and the HSCRC to assemble a special Commission to investigate the issue.^{78, 79} Additionally, a recent Commonwealth Fund comparative report on the use of hospital global budgets in other countries substantiated concerns, articulated in the literature on this issue, that the use of global budgets in many developed countries had contributed to increased waiting lists for care.⁸⁰

As discussed, ER wait times in Maryland were among the highest in the U.S. just prior to the start of the Maryland 2014 Fixed HGB demonstration and thus can't fully be attributed to the

incentives hospitals faced under the Fixed budget model. But as documented by recent Maryland data, these long ER wait times have persisted and may have increased after the implementation of HGBs.⁸¹ In response, and as discussed in our section on Maryland's Quality Incentive programs, the HSCRC has added an ED wait-time measure to its Pay-for-Performance quality incentive program (a program which differentially rewards or penalizes hospitals financially for comparatively positive or poor performance on quality metrics).⁸²

Maryland also performs relatively poorly on patient experience of care as measured by patient satisfaction surveys conducted by CMS, although the RTI evaluation of the Maryland All-Payer Model in 2019 did not find evidence of further deterioration of patients' evaluation of hospital care in the state. Yet, a more recent study did find evidence that states with Global Budget Models (which included the Pennsylvania rural hospital global budget model implemented by the CMMI), did experience differential decreases in other survey categories "overall hospital rating" and "recommending the hospital to others."⁸³

3. Evidence of Maryland Hospital Shifting of Care to Non-hospital Providers

Given the extremely strong incentives that hospitals face to reduce all hospital utilization under their Fixed HGBs, concern has been expressed that Maryland hospitals have resorted to increased shifting of outpatient hospital services to non-hospital providers. Because Maryland's Fixed budgets are not reduced when the amount of care a hospital provides is reduced, hospitals are incentivized to reduce hospital utilization by any means, including managing unnecessary hospital care, potentially stinting on care (as discussed in the previous section) and shifting care to other hospitals or non-hospital providers in the area.

In the Maryland's All-Payer HGB Demonstration model which began in 2014, the CMMI started to require the state to reduce Medicare's total (both hospital and nonhospital) spending growth in the state relative to historical trends. However, a 2017 Health Affairs article evaluating the progress of the model noted that Maryland's growth in non-hospital Medicare spending exceeded national rates of growth by 0.7% in 2015. This trend accelerated in 2016 when non-hospital Medicare spending in Maryland jumped by 4.2% while compared to only 1.9% nationally. Maryland ranks in the top five states nationally in the number of free-standing, non-hospital Ambulatory Surgery Centers (ASCs) in the U.S., and these centers fall outside of the state's system of HGBs.⁸⁴ These and other types of ambulatory care (such as urgent care centers, diagnostic testing centers and other sites of ambulatory care) are reimbursed on a FFS basis and thus incentivized to increase the volume of services they provide. Thus, it should not be surprising that Maryland hospitals faced strong incentives to shift care to these and other non-hospital facilities. The Health Affairs article evaluating the early phases of the Global Bud-

get Demonstration concluded that in response to the “capitation of hospital spending, there has been a proliferation of alternative non-hospital sites across the states, including ambulatory surgery and urgent care centers, and in an increase in skilled nursing facilities.”⁸⁵

Despite evidence from the cited Health Affairs article that Medicare non-hospital expenditures were growing faster than non-hospital Medicare spending nationally,⁸⁶ the original CMS evaluation of the Maryland All-Payer model (performed in 2019 by RTI) did not highlight the systematic shifting of care from hospital to non-hospital providers during these initial years of the All-Payer Model. However, a qualitative study of Maryland healthcare leaders published in JAMA in 2022 found that many involved in the Model believed that spending on acute hospital care was being reduced by not only improved efficiency of patient care, but also by shifting of some hospital-based services to ambulatory entities not regulated by the HSCRC.⁸⁷

And more notably, the subsequent Mathematica evaluations of the Maryland Demonstration for CMS did identify a significant and growing problem with the shifting of hospital services to non-hospital providers, which Mathematica said posed a risk to Maryland’s TCOC Model. Mathematica’s 2024 Report covering the years 2019-2021 found that non-hospital spending increased by 3.1%, while hospital spending declined by 6.2% saving Medicare money overall. However, the trend in growth in non-hospital spending continued in 2022 which more than offset Medicare hospital savings in that year raising concerns that this trend could continue undermine the overall savings performance of the TCOC model.^{88, 89}

Overall, it appears that the weight of the evidence, including peer-reviewed studies, spending trend data, qualitative healthcare leader interviews, and the HSCRC’s own policy responses, supports the conclusion that the Maryland HGB model has been associated with a shift of care to non-hospital, unregulated settings since 2014. The shift appears in most prominent in surgical procedures moving to the state’s many ambulatory surgery centers, growth in urgent care use, increases in skilled nursing facility utilization, and outpatient chemotherapy.⁹⁰ Although it is not likely that these shifts resulted in more rapid overall healthcare spending growth in the state, such shifts are counterproductive because, as noted, they result in payers paying for care twice – once in the global rate for the hospital and again in fee-for-service charges for outpatient services once the service shifts out of the hospital’s HGB to a non-hospital provider.

In our estimation, the excessively strong financial incentives that hospitals face under Fixed HGBs represents a potential weakness both the Maryland All-Payer and TCOC models. The reported side effects of both models raise the question whether similar reductions in the growth of hospital volumes could have been achieved by our recommended use of a VAS mechanism, which can be adjusted to provide similar, albeit less severe, incentives for hospitals to reduce

care to the patients they serve. As noted, the HSCRC experienced success in controlling both per case and per capital hospital spending in the period 1976 to 1992 when the VAS in its most potent form were in place in the HSCRC's rate-setting system. We will thoroughly describe the workings of a VAS and its advantages over Fixed HGBs in a later section.

4. Other Weaknesses of Maryland's Fixed Hospital Global Budgets

a) Incompatibility with ACOs

It also appears that Maryland's Fixed Budgets are less compatible with the goals of Accountable Care Organizations (ACOs).^{vi} While the use of Global Budgets theoretically is more aligned with the volume reducing and cost control incentives faced by ACOs (more so than standard FFS payment systems), the use of Fixed HGBs during a year means that ACOs can realized little or no savings from their Primary Care focused strategies to reduce hospital use because under Fixed HGBs, hospitals retain all of the savings associated with reduced admissions or other utilization reductions that occur from any source of better care management. In contrast, flexible HGBs, using a VAS, would allow for payers and ACO entities to participate in cost savings associated with the reduction of hospital variable costs that might occur with the elimination of unnecessary hospital utilization.

b) Complaints that Rigid HGBs Stifle Care Innovations from Academic Medical Centers

Additionally, during the term of the All-Payer and TCOC Models, there were many complaints from the state's three academic medical centers (Johns Hopkins Health System, The University of Maryland Medical System and Life-Bridge Health) that they were also severely constrained under Fixed Global Budgets and unable to keep up with the adoption of new technology and new drugs. Johns Hopkins and University of Maryland repeatedly petitioned the HSCRC for large "ad hoc" rate adjustments to their Global Budgets to help fund new technologies and new and effective pharmaceuticals. Special (i.e., outside of the normal annual rate updates applied to hospitals annually) rate increases to both institutions were granted but seen as unfair by other hospitals because only the powerful AMCs received these types of adjustments.⁹¹ In contrast, the previous rate setting model from 1976 to 1992, and the use of a VAS to moderate

hospital volume growth instead of a rigid budget, would have provided appropriate revenue flexibility for AMCs. Under the VAS, hospitals receive increases to their revenues associated

^{vi} ACOs are a Medicare program in which doctors, hospitals and other medical professionals work together to manage care and costs.

with the variable cost proportion of any incremental hospital utilization (including the development of new pharmaceuticals). The VAS then provided sufficient funding for hospitals to invest in new drugs and care innovations on their own without special rate increases, while otherwise discouraging increases in unnecessary volumes of care.

c) Potential Shifts of Care to Non-Hospital Providers Resulting in Large HGB Surpluses

The Maryland system ensured each hospital's compliance with its HGB by requiring hospitals adjust their unit prices in response to annual volume changes. Each hospital's HGB was determined by the product of its service-specific unit rates and its utilization by hospital service category. When a hospital's volumes dropped for any reason, (i.e., better care management, declining patient populations in a hospital's PSA, shifting of hospital care to other hospitals or non-hospital providers or overt stinting on care), the HSCRC would allow that hospital to raise its unit rates so that it could generate its approved overall HGB revenue given its new level of volume.

During the TCOC Model (2019-2024), several suburban hospitals experienced extremely large volume drops and corresponding increases in their approved unit rates which generated large surplus revenues earned under their HGBs. The HSCRC suspected that these volume drops were not primarily the result of effective hospital care management efforts. Rather it appeared they were due to large shifts of care to non-hospital providers. Indeed, hospital leaders themselves acknowledged this tendency in a qualitative article released in 2022. Many executives surveyed observed that volumes were reduced not only by reductions in admissions and re-admission, but also by shifting hospital services to outpatient settings not regulated by the HSCRC, as recounted by one executive:

"When you look at our success under the All-Payer Model, I know that some of that is quality improvement. In particular, our readmissions reductions are very real, and we put things in place that we needed. At the same time...there were things that hospitals were able to do pretty quickly to drive a significant amount of utilization into other settings."

Other individuals surveyed also observed that the surplus revenue under the global budget was often not committed to population health improvement but rather distributed by hospitals according to their own priorities.⁹²

The large overall reduction in these suburban hospitals' volumes generated significant unit rate increases, large budget surpluses and additional profits for these hospitals.⁹³ The large volume

drops and associated increases in these hospitals unit rates and surplus revenues caused the HSCRC to permanently lower or “rebase” these hospitals’ approved global budgets by more than \$70 million.⁹⁴ While these adjustments were probably warranted, the HSCRC lacked the data on non-hospital volumes and revenues to precisely identify and quantify the magnitudes of such shifts and consistently rebase HGBs when care shifted out of the hospital to non-hospital providers.^{vii} Accordingly, other than this one instance, the HSCRC has not been able to accurately quantify the shifting of care from regulated hospital to unregulated non-hospital settings and thus has not reduced (i.e., rebased) Fixed HGBs in the state.

d) Reduced Focus on Hospital Price Levels, Inpatient Length of Stay & Micro-Efficiency

Additionally, operating under rigid budgets, it appears that Maryland hospitals became complacent about controlling hospital spending per inpatient case and lowering inpatient lengths of stay, two hallmark achievements of the previous DRG-based HSCRC payment system.⁹⁵ While global budgets were designed to reduce unnecessary hospital admissions and overall volume, they simultaneously weakened the financial incentives that had previously pushed hospitals to manage the internal efficiency of each inpatient admission and a focus on the control of hospital operating cost per case and length of stay (LOS). Maryland previously had one of the lowest inpatient LOS metrics of any state prior to the beginning of the All-Payer Model in 2014.⁹⁶

However, between 2018 and 2024 Maryland inpatient LOS increased statewide such that HSCRC staff became worried about “significant post-pandemic growth in inpatient Length of Stay. Between 2018 and 2024, inpatient LOS at most hospitals increased by more than 10%, which some experiencing a LOS increase more than 20%. Given Maryland’s early use of DRGs (Maryland was the first state to experiment with DRG payment starting in 1976), the HSCRC had always prided itself on how DRG payment had created strong incentives for hospitals to reduce LOS. However, with the advent of fixed HGBs, hospitals in the state lost their focus on improving the efficiency of each admitted case and instead engaged in a wide range of activities to reduce hospital service volumes, including reductions in preventable admissions and readmissions. Maryland hospitals also engaged in activities, including staffing reductions in their Emergency Rooms and other activities that reduced hospital utilization that were not

vii As noted previously, while most non-hospital care is less expensive than hospital care, such shifts of care under the HSCRC’s HGB model resulted in double payment by payers: once through global budget payments to hospitals whose historical budgets included these services when the budgets were first established and a second time when the care shifted out of the hospital. Rebasing HGBs could correct for this anomaly, however, the absence of a comprehensive and accurate All Payer Claims Database in the state, meant the HSCRC had to make its budget reductions based on tenuous estimates of the magnitude of these shifts.

indicative of improved hospital efficiency.⁹⁷ Discussions with hospital representatives confirmed this trend, with some indicating that the incentives of the fixed HGBs redirected hospital efforts away from managing inpatient efficiency toward any activity that reduced hospital volumes.⁹⁸

Higher inpatient LOS means that individual patients stay longer than necessary, are exposed to harmful infections and other hospital acquired conditions and results in increased hospital bills for these individual patients. In addition to contributing to higher wait times for care, the use of Fixed HGBs has caused hospitals to lose focus on these micro-level efficiencies while pivoting attention to the control of overall hospital utilization and keeping patients out of the hospital altogether.

In response to these issues related to longer LOS, the HSCRC recently devised a supplementary set of financial incentives to incrementally penalize hospitals with high LOS and reward hospitals with lower LOS. This supplementary program was structured similarly to many of the HSCRC's Quality Pay-for-Performance incentive programs, which as we will discuss, are complex and not well-understood by hospital managers.⁹⁹ We believe this policy approach, of providing incremental incentives to lower LOS, will be ineffective because the incentives of this program will be overwhelmed by the extremely strong overall incentives of Maryland's HGBs to focus on the reduction of overall hospital volume by any means possible. The supplemental program is an example of an attempt to correct a clear flaw in Maryland's HGB model which only serves to add further complexity to the overall HSCRC rate setting system.

e) Fixed Budgets Create Excessive Financial Risk for Small Hospitals

Although the use of Fixed budgets did help stabilize the finances of most Maryland hospitals, this was particularly the case during the COVID-19 PHE when most hospitals in the state experienced large reductions in their admissions and overall volumes. The use of rigid HGBs also resulted in an increased level of financial risk faced by smaller facilities, which often experience uncontrolled changes in the morbidity of their PSA patient populations. The imposition of a hard cap on revenues can create a circumstance where a hospital must care for an unanticipated influx of very sick patients, but without the flexibility to have its revenues adjusted to provide the hospital with sufficient resources to treat new cases. A similar circumstance occurred in the late 1980s when Medicare subjected both large and small hospitals to its fixed per case DRG payment system. Both Fixed Budgets and DRGs place hospitals under increased financial risk to control service use and operating costs. Large fluctuations in the patient risk profile (i.e., fluctuating patient morbidity from year to year) that small hospitals face under either system can be destabilizing and cause the hospital to go out of business, as was the case in the years following the implantation of DRGs for small rural hospitals.

The smallest hospitals in Maryland also experienced fluctuations in demand for hospital care but were unable, under their Fixed revenue structures to be adequately paid for the care they delivered. These circumstances may have contributed to the two smallest hospitals in the state experiencing severe financial difficulties under HGBs and being repurposed to limited-service facilities providing primarily emergent and urgent care.¹⁰⁰ Again, in contrast to the Fixed HGBs used for all hospitals, a system of Flexible HGBs using a VAS mechanism, can be adjusted (by changing the associated variable cost percentage used in that model) to moderate the financial risk small hospital face and avoid unanticipated insolences of smaller hospitals.

f) Disappointing Results in the Implementation of Population Health Initiatives

As noted, a goal of Maryland's original HGB demonstration for 10 rural hospitals beginning in 2009, was to encourage these hospitals, which served largely "captive" patient populations in their relatively isolated PSAs, to use surpluses generated under their budgets to invest in primary care and initiatives to improve population health of their local patient populations. While the state's HGB model has demonstrated that Maryland hospitals did reduce ER visits and ER return visits relative to other states,¹⁰¹ and more rapid reductions in preventable hospitalizations for conditions like diabetes, asthma, and heart failure, the evidence of concerted efforts to improve population health is not positive across all settings.¹⁰² One evaluation of rural hospitals reported that no statistically significant changes in inpatient admissions or readmissions occurred after three years of the Rural Hospital Fixed Budget model (2009-2013),¹⁰³ and the broader CMS sponsored study of the Maryland All-Payer Model over its first three years did not find that the program reduced readmissions or demonstrably improved coordination between hospitals and primary care providers.¹⁰⁴

Despite the emphasis on hospital investment in programs to improve population-health programs, there is only mixed evidence is that Maryland hospitals have consistently used their budget surpluses to reinvest in population health projects, as originally intended by the HSCRC. Successful population-health initiatives are difficult to establish, and hospital personnel generally do not possess the expertise to implement them. In our experience, acute care hospital executives generally have little experience with focused care management activities or ways to improve population health. Accordingly, they may resort to care reduction methods that are more easily implemented, such as cutting needed staff in key areas, such as the Emergency Department, shifting care to other hospitals or local non-hospital providers or stinting on care in other ways. As noted, Maryland's extremely high ER wait times, which preceded the All-Payer Model have remained quite high and may have increased during the duration of the All-Payer and the TCOC Models.¹⁰⁵

The evidence suggests a mixed overall conclusion: while Maryland's global hospital budgets did experience some success at containing Medicare spending and reducing avoidable hospitalizations, they failed to function as effective population health tools on their own. Some researchers evaluating the All-Payer and TCOC Models believed that Fixed hospital budgets are too blunt a policy instrument to incentivize hospitals to selectively reduce low-value care because Maryland's budget approach failed to engage physicians and community providers (these providers were not included in the HGB incentive structures) and created structural disincentives for hospitals to invest in community health.¹⁰⁶

D. Comparison of Fixed HGBs to a “Flexible” HGB using a VAS

As noted, Maryland's earlier volume-adjusted rate-setting system (1976–92) created what we refer to as a Flexible HGB for each hospital. Under this system, patient volumes could flow more freely from facility to facility with associated variable revenues, “following the patients,” which is more consistent with market competition principles. In short, the VAS approach, which will be discussed in more detail later in this document, accomplished similar utilization reducing results as Fixed budgets, but through the use of more moderate incentives for hospitals to reduce the provision of unnecessary hospital care. This more flexible approach to hospital financing also can support market competition because patients remain free to choose hospitals instead of being assigned to hospitals with fixed budgets, which was the approach that OECD countries once used and ultimately have abandoned. Table 2 below illustrates the financial incentives related to hospital volumes of three different FFS payment systems:

Case A represents standard FFS payment, in which hospital revenues are treated as 100% variable with volume; Case C represents the opposite extreme (i.e., incentives hospitals face under a Fixed global budget in which hospital revenues are effectively 0% variable with volume change); and Case B, the HSCRC's “middle ground” approach utilizing a VAS where volumes were treated as 60% variable with volume change.

Table 2: Summary of Financial Incentives Under Three Approaches to Rate Setting

Case A: Fee-for-Service (FFS) Payment: Hospitals Revenues treated as 100% Variable with Volume Change	Case B: Middle Ground using a VAS: Hospital Revenues reflect actual hospital Variable and Fixed Cost percentages of 60% and 40% respectively	Case C: Fixed Global Budgets treat Revenues as 0% Variable and 100% fixed with Volume Change
Hospital paid 100 cents on the Dollar for incremental (marginal revenue) volume increases when hospital marginal costs for each new services are closer to 60 cents on the dollar.	Hospitals are paid for the variable costs associated with volume increases (as noted, Maryland assumed variable costs were 60% of total costs) but hospitals retain revenue to cover fixed costs (estimated to be 40% of total costs) when volumes decline.	Under Fixed budgets hospital receives no additional revenue when volumes increase and sustain no loss of revenue when volumes decrease.
FFS payment results in significant excess marginal revenue earned (over marginal costs) when volumes increase.	The VAS removes the excess of marginal revenue (100 cents on the dollar) over marginal costs (60 cents on the dollar) when volumes increase effectively neutralizing the perverse incentives of FFS.	Creates extremely strong incentives to reduce hospital volumes – through care management but may also cause stinting on care or shifting of care to non-hospital providers.
Hospitals add to their profits when volumes increase and lose money when volumes decline.	The VAS also restores a hospital's fixed costs (assumed to be 40% of total costs) when volumes decline.	Hospitals were found to stint on care under Fixed HGBs in Europe and in Maryland particularly in the Emergency Room, leading to long wait times.
'The financial incentives of FFS payment induce hospitals to provide large amounts of unnecessary and low-value care and resist efforts of Managed Care entities and ACOs to reduce hospital volumes.	The VAS is a middle ground approach with financial incentives that are "mid-way" between FFS and Fixed HGBs.	Maryland hospitals also shifted care from their regulated HGB to unregulated non-hospital providers resulting in "double" payment by payers (once under the established Fixed HGB and again when care shifted to other providers).

E. Advantages of Flexible Hospital Global Budgets Using a VAS

This more moderate Flexible Budget approach to paying hospitals, which makes use of a VAS, offers the same (although less severe) incentives that hospitals face under Fixed HGBs. It has the following advantages over either FFS payment or the use of a Fixed HGBs:

1. Flexibility in Adjusting the Incentives to Control Volumes

The primary advantage of the use of a VAS to adjust hospital payments under FFS payment models, is that can be structured to reduce or completely neutralize incentives hospitals face under FFS that incentivizes them to over-produce volumes. The VAS system can be adjusted to either increase or decrease the incentives that discourage new hospital volumes by adjusting the Variable Cost Factor (VCF) being applied. As shown in Table 2 above, Fixed budgets pay hospitals based on the use of VCF of effectively 0% (i.e., a hospital receives little or no additional revenue for volume increases). In contrast, a standard FFS payment systems pay hospitals with a VCF of 100% (i.e., hospitals receive dollar for dollar increases in revenue when volumes increase). Flexible HGBs using a VAS represents a more moderate approach to incentivizing hospitals to reduce volumes. While the VAS does not contain as powerful a set of incentives for volume reductions as a 100% Fixed HGB Model (i.e., Case C), this more moderate approach was used in Maryland from 1976-1992 to effectively discourage the provision of unnecessary or low-value hospital care. The use of a VAS also gives states more flexibility to adapt their payment systems to the circumstances they face over time. For instance, if hospital volumes continue to grow with the use of 60% VCF, a state can reduce this factor to say 50% to provide stronger incentives to discourage the growth of unnecessary hospital services. Additionally, a VAS can be used in both an all-payer rate setting system, including Medicare and Medicaid revenues, or in a rate setting system designed to cap the hospital rates paid by private insurers.

2. Flexibility in Adjusting the Fixed Cost Percentage to Support Small and Rural Hospitals

The key secondary advantage of a VAS the way it was structured in Maryland, is that increases hospital rates during a year to pay for a hospital's estimated fixed costs when volumes decline. This adjustment to cover fixed costs can also be adjusted over time or for different sized hospitals. As noted, small and more isolated rural hospitals generally have much higher proportions of fixed costs and thus the VCF for these hospitals could be set at 10% or 20%, say, instead of the 60% variable cost adjustment factor used by the medium to large hospitals in Maryland HSCRC from 1976-1992. In either case, the VAS and the VCFs used can be modified to address the particular circumstances and different sized hospitals operating in each state.

3. Revenues Follow the Patient and Hospitals Retain Incentives for Micro-Efficiency

As discussed, rigid HGB also truncate the relationship between payment and the specific treatment of each patient. Paying a hospital a total amount of revenue each year, regardless of the number patients treated, disrupts the incentives for a hospital to treat each patiently as efficiently and effectively as it can and instead shifts the focus of hospitals toward reducing all volumes of care, any way it can. In contrast, the use of a Volume Adjustment System that pays hospitals on the basis of their variable costs for new incremental volumes allocates money directly to each provider for all services rendered in patient treatment, allowing revenues to more freely “following each patient.” This type of system is more consistent with the principles of market competition.

Additionally, the use of a VAS also allows for any payer-induced shifts of care, say from high cost/lower quality to low cost/higher quality providers, by directing revenues to these more effective and efficient providers as patients move from one facility to another. Under a VAS an ACO or managed care entity that successfully moves care from a high cost to a low-cost hospital would realize savings associated with the variable cost proportion used in a VAS. In contrast, the use of Fixed HGBs means that payers or ACOs, that might stand to benefit from redirecting patients to lower cost and higher quality providers, have little financial incentive to do so. If an insurer or ACO successfully shifts patients to lower-cost, higher quality hospitals, the Fixed Budget will lock revenues into the original hospital negating any “cost-savings” that a payer or managed care entity might experience as result of the shift of this care.

4. Flexible HGBs do not Disproportionately Incentivize Hospitals to Shift Patients

The HSCRC could attempt to reduce or “rebase” Fixed hospital budgets when shifts to outpatient settings occur, to account and adjust for this double-payment phenomenon. And in fact, in 2018 and 2019 the HSCRC did rebase the budgets of several suburban hospitals in the state for the generation of budget surpluses by these hospitals for shifts of care to non-hospital providers. However, the HSCRC was hampered by the absence of reliable and accurate non-hospital claims data, and these rebasing adjustments were not applied on an on-going basis.

5. Flexible HGBs Present Lower Financial Risk for Smaller Hospitals

Flexible HGBs also greatly reduce the financial risk faced by small hospitals. If their volumes increase, they can recover the variable cost associated with treating additional patients. In

Maryland during the early years of the All-Payer Model, Fixed Budgets were associated with increased fiscal instability of some Maryland hospitals. Average operating margins initially decreased by 0.2% in 2016 for all hospitals with profitability changes ranging from -6.5% TO + 16.8%. A similar phenomenon occurred in Taiwan with the introduction of Fixed Hospital Budgets.¹⁰⁷

6. Use of a VAS Incentives to Reduce Unnecessary Hospital Care and Cost

Flexible Global Budgets using a VAS still contain strong (although not as strong as with Fixed Budgets) incentives for hospitals to manage hospital care and reduce the use of unnecessary and low-value services. As we have discussed, the incentives to reduce hospital volumes under the VAS can be ratcheted up or down by a rate setting agency by changing the magnitude of the VCF used in the adjustment. The Flexible Budget model also still rewards hospitals for reducing their operating costs and improving efficiency as a means of increasing hospital profits. This incentive too, can be ratcheted up or down by changing the proportion of fixed and variable costs recognized and paid for under the VAS (i.e., lowering the VCF and raising the Fixed Cost Factor (FCF) applied in a VAS).

7. Compatibility with Alternative Risk Arrangements Such as ACOs

The flexible HGB approach also is compatible with alternative payment approaches, such as ACOs or other managed care strategies. These ACO or payer entities can share in the savings generated by reductions in unnecessary hospital care, because unlike a Fixed HGB where the hospital retains all savings associated with reduced volume, under a Flexible HGB hospitals and payers share in the savings associated with better care management.

F. Conclusions on the Use of Fixed Hospital Global Budgets

Maryland hospitals operating under rigid HGBs clearly have strong incentives to bring hospital utilization down, and these incentives did result in hospital volume reductions during the All-Payer and TCOC Models. A recent Health Affairs study using national commercial claims data found major utilization changes in Maryland after the implementation of Fixed Budgets. After adjusting for population aging and other demographic changes, hospital utilization in Maryland decreased 11 percentage points more than in other states, primarily driven by outpatient utilization trends, which were 19 percentage points higher in Maryland than elsewhere. However, the article also cautioned that there are risks in such utilization reductions, and global budget designs must consider payment levels that are fair for both payers and providers while embedding mechanisms that maintain quality and discourage stinting on patient care.¹⁰⁸

Despite this success in reducing overall hospital utilization, we believe that Fixed HGBs create excessively strong incentives to reduce all hospital service volumes by any means possible. Lacking experience in care management and population health initiatives to improve the health of service areas patients, there is a risk that hospital executives will pursue care reduction strategies that are easiest to implement; not necessarily efforts that target low-value hospital care and the health improvement of PSA patient populations. Indeed, one study examining whether the utilization reductions in Maryland reflected targeted elimination of wasteful care did not find evidence that Maryland hospitals met their revenue targets by reducing systematic overuse of hospital services. The authors concluded that Fixed HGBs may be too blunt an instrument to selectively reduce low-value care.¹⁰⁹

Separately, many studies on Global Budgets in other OECD countries observed increased wait times for care, both inside the hospital, in ER settings, and outside the hospital in the form of longer wait times for elective referrals, indicating that some reductions in hospital use may have resulted from stinting on care.¹¹⁰ In Maryland, Fixed Budgets are associated with both increased wait times and shifts of care to non-hospital providers, many of which are owned by the hospitals but not regulated as part of a hospital's HGB. The long ER wait times and declining patient satisfaction scores recorded in Maryland are consistent with capacity constraints tied to the rigid financial incentives of Maryland's rigid HGBs.¹¹¹

With regard to the shifting of care to other providers, evidence is substantial that Maryland hospitals shifted regulated services to off-campus clinics, physician offices, ambulatory surgery centers, and skilled nursing facilities outside Maryland's regulated hospital budgets.¹¹² One study, authored by the former president of the Maryland Hospital Association, observed that during the TCOC model, Medicare non-hospital spending, which was outside HGBs and not subject to HSCRC regulation, increased faster than Medicare spending.¹¹³ This observation is indicative of wide-spread shifting of hospital care outside of regulated HGBs. As noted, hospital leaders acknowledged this strategy themselves, indicating that a care shifting strategy represented a relatively easy way for hospitals to generate revenue surpluses under their rigid HGBs.¹¹⁴

Overall, the evidence supports the proposition that Maryland's HGBs did induce hospitals to reduce unnecessary care but leaves open whether these reductions were primarily due to effective care management and implementation of population health measures, or primarily due to restrictions on the availability of hospital staff and services, outright stinting on care and/or the shifting of care outside of the hospital's regulated budget. A structural challenge is that Maryland's HSCRC regulatory authority has always been limited to hospitals, and the HSCRC's regulatory or data collection abilities to constrain or track spending in non-hospital settings (other

than for Medicare services) is limited. These regulatory and data limitations cripple the ability the Commission to detect and precisely measure the shifting of hospital care to the broader system of fee-for-service non-hospital providers.

In addition to these issues associated with the use of Fixed HGBs, we are concerned by CMS and the CMMI's recent mandate that Maryland dismantle its all-payer Medicare Waiver and move to an unspecified hybrid system of a fixed budget for Medicare, with hospital payment levels determined by CMS, along with unspecified payment arrangements for private payers and Medicaid. That change will undermine the consistent and collectively strong incentives of Maryland's all-payer system and instead create distortions through the application of inconsistent hospital payment incentives.

As a result of these developments, and the Trump administration's general disdain for government regulatory programs, we fear that states will be unable to negotiate Waivers from Medicare payment methods sufficient for them to establish an all-payer payment system similar to Maryland's. This likely means that the development of all-payer HGBs will have to wait until the U.S. elects an administration that will be more supportive of such regulatory strategies.

In the meantime, states can move forward with the development of rate regulatory approaches to control the price and spending growth for private insurer and self-funded plans in their state. Part 2 of this report discusses a potential "RoadMap" of incremental rate setting approaches making use of Reference Based Pricing (RBP) models benchmarked at multiples of Medicare hospital prices. This approach, which is now being used Oregon and may be implemented soon in Washington, Vermont and Indiana, gives states a relatively easy way to get their rate setting systems off the ground, allowing them to contain hospital price and spending growth. Our recommended incremental approach also can give states valuable experience in the regulation of hospital payments while allowing them to monitor the impacts of a price regulation on hospital finances and quality of care.

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