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Continuing Development of an All Payer Health Care System in Maryland

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ABSTRACT
The state of Maryland, in collaboration with the Centers for Medicare and Medicaid, developed the first all-payer system model in the U.S. in 1971, and later in response to financial pressures, modernized this program to improve overall per capita expenditure, quality of care, and the outcome of Marylanders' health.

We note positive change in moving its healthcare delivery model from volume-driven care to value-driven coordinated care: Maryland hospitals have changed their mindsets to achieve cost reduction, health improvement, and quality of care improvement for the state of Maryland.

Keywords
health care reform, all payer system

1 INTRODUCTION

In 2014, Maryland and Center for Medicare and Medicaid (CMS) jointly announced the modernization of the state's 40 year old all-payer system into a new system focusing on overall per capita expenditure, quality of care, and outcomes of Marylanders' health. Reinhardt (2011) defines an all-payer system as one in which all payers pay the same price for the same service. Although versions of all payer systems had been attempted in Maryland, Massachusetts, New Jersey, and New York, by 2012 Maryland was the only state continuing to operate such a system (Murray, 2012).

Maryland's Original All Payer System

Maryland's all-payer hospital reimbursement model shifted financial incentives to reward results instead of volume, with the goal of achieving healthier communities while simultaneously slowing spending growth. CMS waived its right to set Maryland hospital Medicare rates for five years in return for Maryland's commitment to keep hospital inpatient costs below the national average. The agreement covered Medicare hospital inpatient care and costs per visit only (PCC, 2014) for all payers: governmental, commercial, and self-pay (HDHMH, 2013).

Because Maryland's system applied only to hospital rate setting, it is technically a "modified" all payer system, a detail virtually always ignored and Maryland's system is commonly referred to as an "all payer" system, a convention used throughout this paper. The prices were determined by a government regulated agency, the Health Services Cost Review Commission (HSCRC), which established rates for each unit of service for each hospital (MHA, 2015a). The rate is set differently for each hospital, depending on criteria such as number of patients admitted with health insurance; e.g., in 2015, the price of a vaginal delivery in Adventist Health Care Shady Grove Medical Center in Maryland was set to $5,466 (MHCC, 2015a), while the price for the same service delivered at Johns Hopkins Hospital was $13, 137 (MHCC, 2015b).

Maryland's all payer system was developed by the Maryland legislature to allow State government to regulate and set prices of acute care hospital services across the state (Murray, 2009). Maryland and the United States had experienced increasing costs of hospital cares after the creation of Medicare and Medicaid: in the U.S., hospital care accounted for 5.1% of the Gross Domestic Product (GDP) and $108 billion (measured in 2002 dollars) of health care spending in 1960, and these figures rose to 15 % of GDP and $1.6 trillion in 2002 (Goldman and McGlynn, 2005); during this period, Maryland's hospitals providing services for the uninsured were facing insolvency (Murray, 2009). In 1977, HSCRC successfully negotiated with CMS to participate in a modified all payer system which would cover only hospitals (CMS, 2015).

In order to allow Maryland to develop its initial all payer system, CMS required the cumulative growth payment of Maryland's Medicare spending per discharge after 1981 to be less than the U.S average (Colmers, 2014). Consequently, Maryland's goals in the development of its original all payer system were to constrain hospital's cost inflation, ensure hospitals' financial stability by providing predictable payment system, to preventing cost shifting, increase access to health care for Maryland's citizens, and

increase the equity and fairness of hospital financing (Murray, 2009). Unfortunately, modernization of Maryland's original all payer system became necessary when many Maryland hospitals faced insolvency and its Medicare waver was in jeopardy.

Modernized All Payer System

According to HSCRC (2014), effective January 1, 2014, Maryland and CMS reached an agreement to modify its existing all payer model for hospital services payment. This revision was necessary because the hospital admission rate in Maryland had increased substantially, causing increases in overall hospital spending (Anderson and Herring, 2015). MHA (2015b) stated that with the modernized all payer system, Maryland would focus on reducing costs, improving the health of the population of Maryland, and improving quality of care, the Institute for Healthcare Improvement's Triple Aim (IHI, 2016).

In the modernized all payer model, HSCRC would still set prices for inpatient hospital services, but Maryland hospitals would be required to adopt a Global Budget Revenue (GBR) reimbursement by 2017 (PCC, 2014). According to HSCRC (2013), the GBR system was a revenue constraint as well as a quality improvement method. Under the GBR system, each hospital would receive an approved regulated revenue each year and be required to operate within the budget. The volume of care would not affect the revenue determination, which discouraged hospitals from increasing admissions in order to increase revenue.

Along with GBR, Maryland agreed to improving quality of care by reducing potentially preventable conditions; e.g., the 30 day hospital re-admission rate was required to be below the national average and the hospital-acquired infection rate was to be reduced by 30% by 2018 (HSCRC, 2014a), in addition, Maryland was to save $330 million in Medicare spending by the end of fiscal year 2018 (CMS, 2014). Consequently, Maryland set a cap limit of 3.58% on annual total hospital cost growth in the first 3 years by 2017. Maryland and CMS agreed that if Maryland did not accomplish the targeted goals by fiscal year 2018, it would resume its prior all-payer system (CMS, 2014).

2 RESULTS

Original Version All Payer System Results

Achievements of Original All Payer System

Major accomplishments of Maryland's original all payer model were: elimination of cost-shifting, lowered costs for all payers, limitation of the growth of hospital per admission cost, provision of stable and predictable income for hospitals, promotion of financial stability for efficient and effective hospitals and removal of the inequality in the burden of uncompensated care (Colmers and Sharfstein, 2013; MDHMH, 2013). Because Maryland eliminated cost shifting, hospital bills in Maryland were much lower than any other states; e.g., the average cost of hospital charges for a joint replacement for a Medicare patient in 2013 varied from $88,238 in California to $21,230 in Maryland (Cauchi and Valverde, 2013). Also, Maryland's hospitals' markups of price over cost became the lowest in the nation: in 1980 the national average markup of hospital charges in the US was less than 25% and Maryland was slightly lower than national average; by 2009 national average of markup of hospital charges have increased to over 200% while Maryland's markups remained essentially unchanged from 1980 (Murray, 2014).

Between 1976 to 2009, Maryland's health care cost growth was the lowest in the U.S. (Foreman, 2014). In 1976 the amount spent on patient care in Maryland hospitals was 25% higher than the national average; by 2009 it was 4% below the national average (MHA, 2013). Maryland achieved an estimated savings of over $40 billion between 1976 and 2007 (Pohl, 2012).

Limitations of Original All Payer System

There were, however, "storm clouds on the horizon." Limitations of the original version of Maryland's all payer system included the continuing underlying incentives of fee-for-services per admission per case for hospitals, outdated measurement to evaluate efficiency of care and a lack of incentives to improve population health and coordination of care (Colmers, 2015; Colmers and Sharfstein, 2013; National Health Policy Forum, 2014).

The hospital admission rate in Maryland tripled, from 0.8% between 1990 and 2000 to 2.4% between 2001 and 2008 (Kalman et al., 2014). Largely due to this increase in hospital admission rate, from 2013-2014 the waiver test (which measured relative difference between national average and Maryland's Medicare inpatient spending) decreased more than half, and the prediction was that within a few years Maryland's Medicare inpatient spending and national average would be the same or higher (Colmers and Sharfstein, 2013; PCC, 2014).

By 2013, the financial status of Maryland hospitals had declined due to HSCRC's tight rate settings of services; in 2013 Maryland hospitals averaged only a 0.8% aggregated operating margin, very close to the break-even point (MHA, 2013). More alarming, the percentage of Maryland hospitals reporting losses was 42%, with 25 out of 60 hospitals in Maryland having negative operating margins.

In the original all payer system, Maryland and CMS did not set a quality measure for Medicare waiver testing; this resulted in declining quality of care as reflected by a high hospital re-admission rate. Subsequently, Maryland implemented new benchmarks for the quality of care in the all-payer system (Kastor and Adashi, 2011); e.g., a pay per performance program was introduced and it successfully reduced the hospital acquired conditions by 15% over a span of two years (Calikoglu, Murray and Feeney, 2012).

Modernized All Payer System: Early Results

The per capita annual revenue growth of Maryland hospitals rose slightly from 1.5% in 2014 to 1.8% in 2015 (HSCRC, 2015). Also, Maryland's goal to move 80% of hospitals to GBR was exceeded: all 46 hospitals in Maryland changed to

GBR the first year (HSCRC, 2014). Further, hospitals' operation margins improved from 2.9% to 4.8% between 2014 and 2015. In addition, the growth of Medicare spending per beneficiary was 1.5% below national growth projection in 2014 (HSCRC, 2015).

Quality improvements have proved more challenging. One goal was for hospitals to reduce their all-payer adjusted readmission rate by 6.76% between calendar year 2013 and calendar 2014, but only 15 of 46 Maryland hospitals met this goal. As a result, the overall all payer risk adjusted readmission rate decreased only slightly between 2013 and 2014. Because achieving this readmission rate decrease has proved difficult, the amount of revenue at risk for hospital performance was quadrupled from 0.5% in 2016 to 2.0% in 2017 and hospitals that met this target received a one-time reward of up to 0.5% of their permanent inpatient revenue (HSCRC, 2015).

3 DISCUSSION

The purpose of the study was to examine the original and modernized Maryland all payer systems, and determine the efficiency and sustainability of the modernized all payer system. The literature review revealed achievements and limitations of original all payer system and noted why Maryland had to modernize its all payer system.

Accomplishments of the original all payer system were substantial: elimination of cost shifting, lowering of health care cost, reduction of markups, provision of equal access for all Marylanders regardless of health insurance while yielding Maryland hospitals relief from the burden of uncompensated care. Limitations of the original all payer system were also found: lack of strong measures to constrain overall cost of health care and no incentives for measurement of quality of care. Eventually the original all payer model became unable to achieve the goals of improving patient care, quality of care and cost of care.

The modernized all payer system was developed to overcome weakness of the prior all payer system: Maryland added strategies to achieve the improvement of population health, provide quality care and better patient experiences and to better control cost of health care. We note the potential efficiency and sustainability of the new modernized all-payer version with GBR, which has limited hospital per capita growth and encouraged and rewarded hospitals to be responsible in improving health status of the population. The modernized all payer system has been moving its health care delivery model from volume-driven care to value-driven coordinated care. Maryland hospitals have changed their business model and become more accountable to provision of quality care while achieving cost containment.

Miller (2009) argued that better health care systems should move away from volume-driven care to value-driven care and should develop better payment systems including benefits of both fee for service and capitation payment. He also emphasized that changing payment processes was not enough, but providers needed to change their mindsets, organizational structure, and business model to provide better care. Maryland's hospitals and health care provides have been working on changing organizational structure, business model, and mind sets in order to achieve Triple Aim; thus the new model has shown potential efficiency. As for sustainability, only time will tell.

The original Maryland all payer system, while successful, ultimately was not sustainable. The modernized all payer system appears to exhibit more efficiency and potential financial feasibility than the state's original all payer model. Other states can try to implement an all payer system in order to provide health care on a more equitable basis to their citizens. If the efficiency and effectiveness of the modernized Maryland all payer model can be demonstrated, more widespread implementation of this (or a similar) model may be appropriate, although the feasibility of this is unclear. Interestingly, individuals most familiar with Maryland's modified all payer program appear to be unconcerned with its generalizability (Berenson, 2015), while others (e.g., Coyle, 2015) are more positive regarding their state's adoption of at least part of the modified Maryland model. However, the modernized model does require hospitals and business people to change their mindset to be responsible in providing health care all citizens, resolving social issues such as poverty and unequal access to health care to certain population, and achieving the triple aim.

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