Consumer Preference Driven Market Share Measurement

*"The Money Follows the People"*

A Combined Response on Measuring Market Share

Kaiser Permanente and Holy Cross Hospital

October 27, 2014

## Introduction/Summary

 This paper is in response to a request from the HSCRC for "white papers" on a variety of topics related to the implementation of the new Maryland All Payer system. It is focused on developing a resource allocation methodology consistent with the overall terms of the waiver performance requirements.

 The goal of this proposal is to define a system that guarantees compliance with the waiver performance requirements while simplifying regulation, providing flexibility and encouraging the innovation we will need to meet the very stringent tests of the new all payer system.

 The paper is built on the experiences of a large hospital (Holy Cross) and borrows heavily from the approach that is utilized by Kaiser Permanente in allocating resources among their hospitals in their 3.4 million member Northern California Region. It, therefore, has been "road tested" and found to be highly reliable.

 The paper focuses on both the goals and the challenges of waiver implementation and then takes the reader through its approach to managing resource allocation and the specific implementation steps and data support issues central to converting this approach to day–to- day action.

## Context

For nearly four decades, Maryland’s unique all payer hospital payment system provided a unique model for innovative hospital payment methodology. It has produced lower cost per EIPA increases and improved access for Marylanders. However, the system also lagged in a number of utilization measures - making our cost per capita less favorable to national performance.

## Key Provisions of the New All Payer Demonstration

The chief features of the new demonstration model are as follows:

* ***Revenue Limits*** - The model provides an upper limit for annual hospital revenue growth for all payers. Hospital regulated inpatient and outpatient revenue for Maryland residents is limited to historical levels incremented by no more than the long-term growth trend in gross state product. For the first three years of the demonstration model, the per capita growth rate limit is calculated at 3.58 percent annually. With expected population growth of 0.7 percent annually, hospital revenue is effectively limited to growth of 4.28 percent annually under this model.
* ***Medicare Savings*** - The required cumulative Medicare savings under the demonstration model come to $330 million. The State will reduce its Medicare spending on a per beneficiary basis, matching the national growth rate in the first year of the demonstration model and growing slower than the nation by 0.5 percentage points annually for the remaining years of the demonstration model.
* ***Readmission Reductions*** - The State must reduce its 30-day Medicare readmissions rate to the national average by the end of the five-year demonstration model.
* ***Hospital Acquired Condition Reductions*** - The State will reduce potentially preventable complications as measured under the Maryland Hospital Acquired Condition (MHAC) program by 30 percent by the end of the five-year demonstration model.

## Challenges under the All-Payer Demonstration Model

The new system sets a ceiling on growth in spending for regulated hospital services that is equivalent to the long term per capita economic growth of the State. Such a revenue ceiling target has not been previously achieved over any substantial period and is on its face very aggressive. While Maryland’s gross per capita state product grew at an annual average rate of 3.58 percent over the ten-year analysis period, hospital gross patient revenue per capita grew at 6.8 percent over the same timeframe. In the US over the past 50 years, health spending has grown three times as fast as the overall economy. While hospital revenue growth has been lower in recent years in response to activities to save the historic all-payer waiver, the long-term trends suggest that substantial changes will have to occur in the industry and in the overall delivery system to maintain financial health while delivering quality care to Maryland residents.

While there are multiple goals to achieve under the hospital demonstration model, limiting spending to the annual revenue growth ceiling is central to the model’s success, and the utilization levels and growth rates observed in the past must be addressed if we are to improve patient outcomes, patient experience and efficiency of care delivery. Goals for readmission reductions and MHACs may be viewed as specific targets in service of this larger goal. The focus of this paper is creation of the methodology for allowing the resources to follow patient and population need. The approach that this paper advocates is to change hospital incentives to align with utilization improvement goals while rewarding appropriate service delivery. To manage total hospital service revenue differently and to meet the objective of changing the trajectory of the cost curve for these services to fit within the target, hospitals need to become successful in areas of care management, service delivery and care coordination that have not in the past been their primary focus. Now the focus must shift from the incremental service-driven perspective to alternative approaches that will likely include spending on interventions that are outside of regulated services. The key to changing the system is creating and maintaining incentives for hospital management to coordinate with patients, medical staff and other providers to better manage the patient’s health.

## An Approach to Meeting These Challenges

This paper discusses an approach to allocate funds to the hospitals under the demonstration model and methods for distributing that amount to individual institutions in a manner that increases the likelihood of meeting the goals of the demonstration model and achieving the three part aim of healthcare reform. Its basic approach is summarized below, followed by two recommendations for implementing it.

The approach allows system-wide revenue growth flow to hospitals to maximize their ability to prepare for the challenge of new patient care management and preserves a state financial cushion for unanticipated events funds during the first three years of implementation.[[1]](#footnote-1)

For individual hospital distribution of available funds, the "People Share" approach that we propose allocates resources based on expressed Maryland resident care choices so that *revenue follows the patient* and rewards favorable patient outcomes rather than rewarding the volume of services delivered. Market share has traditionally been calculated based on the total quantity of services delivered and therefore utilizing traditional market share alone will incent delivery of more services. This has led some to want to oppose the recognition of full market share movement – or to enter a maze of definitions about what growth should be recognized. The adoption of the People Share approach will provide strong incentives for individual hospitals to achieve all aspects of the three part aim of healthcare reform (Enhance the individual patient experience, produce better population outcomes and do so at lower cost), while making administration of the system easier and allowing HSCRC staff efforts to be focused on necessary "hospital specific" adjustments in fewer instances.

##### Recommendation 1: Revenue Growth in the First Three Years

To meet the demonstration model goals, major changes will be required in both approach and deployment of resources within a hospital’s operations. Given historical trends noted earlier, simply achieving the per capita target in the first three years will require substantial changes in the delivery system to achieve the demonstration model goals in a sustainable manner. Hospital support for the necessary changes will be higher if the HSCRC follows the recommendation of the “Guiding Principles” adopted by the Advisory Council to the Maryland HSCRC:

**Recommendation 2.**

**Meet budget targets while making important investments in**

**infrastructure and providing flexibility for private sector innovation**

* 1. **The Advisory Council urges the HSCRC to strike a balance between near-term cost control, which is paramount, and making the required investments in physical and human infrastructure necessary for success. If we do not meet the near-term targets, there will be no long-term program. But if we fail to make the needed infrastructure investments, we will not have the toolkit of reforms necessary to achieve lasting success.**
	2. **Given the challenging targets in this initiative, goals should be set in the aggregate as close to the targets as practicable based on the degree of comfort that individual institutional targets will be met.**
	3. **There should be incentives for hospitals to meet and exceed the challenging targets of the new model; hospitals should be able to retain and reinvest a high percentage of their savings.**
	4. **A portion of the savings that hospitals achieve could be reinvested into “common good” investments. But given the tightness of the revenue caps under the new model, a new and secure funding source for this type of infrastructure is also essential.**

**Source: *Guiding Principles for Implementation of Population-Based and Patient Centered Payment Systems: A Report from the Advisory Council to the Maryland Health Services Cost Review Commission, January 31, 2014, p. 5***

 It is critical that the benefits of good performance against the waiver targets accrue to hospitals. The targets already reflect a performance level we have never come close to attaining over any period of time and they will take massive investment by, and reinvention of, hospitals if they are to be attained.

At the same time, the HSCRC needs a cushion or reserve to ensure compliance with the terms of the demonstration model. That reserve needs to be maintained at a specified but reasonable level so that funds are available for unforeseen events. Its size should reflect the risk of the system missing its growth targets, but that amount should be small (say 0.25-0.5) percentage points of the annual expenditure level) given the fact that over 90 percent of industry regulated revenue is subject to global budgets.[[2]](#footnote-2) That cushion would be reviewed each year as described below.

An HSCRC commitment to distribute funds in accord with this principle would mitigate the need to develop additional line item funding requests for specific hospital needs and allow a more reasoned approach to many of the discussions about implementation, while reinforcing the closed-end nature of the funding. Under this approach, any excess spending will need to be funded from the cushion established in the first year, which will need to be rebuilt by reducing the following year’s available resources or budgeted for in advance in establishing subsequent years’ revenue growth rates.

 One of the great strengths of the "people share" methodology described is that its basic "per capita" mechanism offers high reliability in meeting the spending target, while providing significant flexibility for hospitals and less onerous and costly administrative responsibilities for regulators.

##### Recommendation 2: Revenue Follows the Patient

The regulatory system should create incentives that will automatically reward individual institution behavior that is aligned with state goals (lower cost, higher quality, better patient experience). While not eliminating the need for adjustments in some specific cases, it should make these instances fewer and more manageable. The financial incentives of the hospital would drive reduced readmissions, better coordination across the spectrum of care delivery, and reduced utilization of hospital resources in ways that make economic sense from the specific circumstances of each hospital.

To control system revenue in the early years of this model, the HSCRC has implemented global budgets for the State’s hospitals. Global budgets stabilize revenue from both provider and payer perspectives, and this methodology dramatically shifts incentives away from higher volumes under fee-for-service reimbursements schemes. However, methods for updating budgets in the future will affect hospital incentives for delivering care. If budgets are static without regard to shifts of patients between facilities, for example, hospitals will have little financial incentive to maintain a broad spectrum of services, top quality of care, or to pursue innovations if that involves more costs.

An important financial incentive for hospitals to achieve all three objectives of the three part aim under the demonstration model is facilitated by allowing market share to remain a significant determinant in the distribution of resources, but to refine how it is calculated so that unnecessary volume does not generate additional revenue. The traditional measure of market share, however, is primarily driven by volumes of service delivered. Recognition of this issue has led to discussions of how to promote “good volume” vs “bad volume, which has focused attention on Potentially Avoidable Utilization which is a complex and controversial measure. If market share measurement is not refined, then global budgets have the potential to encourage cuts in hours or locations or even the availability of high cost services, making it difficult for patients to access needed care. For this reason a refined market share measurement that incents improvement in quality and patient experience while not rewarding the provision of unnecessary services needs to be developed. This approach provides deference to Patient Choices as the ultimate arbiter of value – considering the patient experience, quality of outcomes and cost efficiency. The proportion of people using hospital services rather than the amount of service provided becomes the measure of market share – and ultimately the revenue regulation mechanism.

## Meeting Demonstration Model Goals Through the Use of “People Share”

Why People Share?

To address the principle that “the money should follow the people” while at the same time ensuring that simply adding volume does necessarily increase revenue under the new system, we should count user market share ("People Share"). This would be accomplished by determining an individual user's preference for a hospital over a year, based on that individual’s actual use of services. By introducing this “People Share” method to set the global budgets phase instead of the traditional market share measurement, the HSCRC can establish a dynamic, sustainable model that equitably allocates the available resources according to patient preferences and provides the best chance of meeting the three part aim of the demonstration model. This approach provides strong incentives for high quality and good patient experiences to attract patients as well as efficiency so the care provided does not outstrip the still-fixed resources and commitment to population health for long range sustainability.

 Because the demonstration model target is defined in terms of per capita expenditures, adopting a measure of market share that counts each person only once (People Share) to calculate market share makes it possible to link those individual patient choices to the per person revenue in a transparent way. By calculating revenue allocation to each hospital on this per capita basis, the system can be set up to routinely comply with the aggregate demonstration model limit across institutions. This approach would free the system from unintended variation of service cost related to volume or price, ensure demonstration model compliance without the need for excessive reserves or cushions and simplify administration. In addition to allowing a clear mathematical “line of sight” to the demonstration model target, using “People Share” within the “per hospital” distribution methodology will ensure that the non-financial goals of the demonstration model and the welfare of the population remain top of mind in hospital manager’s decisions. The patient’s right to choose which hospital or other provider to use for needed services will be directly tied to revenue – an essential element to achieving the objectives of the demonstration model.

How People Share Works

As conceptualized, People Share would be measured by looking at the total use of hospital services by each hospital patient in Maryland and determining where the individual received the **plurality** of their hospital services. That hospital would get credit for having been chosen by that individual. The aggregation of the choices of people primarily using a specific hospital versus the number of residents (within an age/zip cohort) who chose to use any Maryland hospital this year would be that hospital's “People Share.” That is, the hospital’s allocated share of patients as a percentage of the total number of individuals receiving hospital care would determine its People Share.

The determination of plurality of service would be based on CMAEDs. Using case weighted case mix adjusted equivalent discharges (CMAEDs) to determine where the plurality of services were received would automatically correct for pricing variances among hospitals that would be present if assignment is made on the basis of charges. Because utilization is standardized for inpatient services based on diagnosis related groups for inpatient services, hospitals do not receive credit for relatively high use of services within an inpatient stay. This approach aligns hospital incentives most closely with the State target (which is per capita-based) while making it unwise to provide a greater volume of services than might be necessary to any one individual in order to increase revenue.[[3]](#footnote-3)

The same methodology can be used for both market share adjustment of global budgets (in the near term) and for establishing the revenue targets for each hospital in future years on a risk-adjusted basis. Having measured the people share as a percent of the users in each zip/age/sex (and possibly disease status) cohort, applying that percentage to the entire population (users and non-users) in that cohort and multiplying it by the per capita target figure for that cohort in the following year would provide a routine way of calculating the revenue target for any individual hospital.

## Implementation/Data Requirements

* 1. Because People Share tracks individual hospital use, HSCRC databases alone cannot be used to construct a People Share measure. To perform this calculation, the HSCRC would use the CRISP methodology for indexing individuals with a common identifier and then aggregating hospital use for each person.
	2. The historical 2013 and 2014 CRISP indexed abstract data can be used to evaluate the impact of People Share. The HSCRC can use the CRISP refined hospital data to compare traditional market share computations throughout the state with the refined approach suggested – calculating “people share” versus traditional market share to evaluate whether it rewards appropriate volume. A valuable step in this process would be to look at whether the high performing hospitals in terms of utilization measures are rewarded more appropriately through People Share or traditional market share calculations. To test this approach, a statewide “people share” base year of 2013 and 2014 should be constructed and each individual hospital’s “people share” computed for use in evaluating how it would compare to traditional market share in computing 2015 potential revenue movement.

The same calculation could be used additionally to compute a theoretically assigned revenue target for 2015 for each institution if people share were used along with the historical utilization of population cells, allowable 2015 rate update and population adjustment to determine each hospital’s targeted revenue if it were rolled forward from that hospitals 2014 base. This would require calculation of the actual per capita service revenue from 2014 in each age/sex/zip cohort as the base from which to establish the expected per capita expenditure per person for 2015.

* 1. The computed “available” revenue per capita within cohort should be aggregated for each hospital and that “allowed allocation” compared with the existing allocation to see if the formula above would result in logical movement of the available revenue among hospitals.
	2. After doing this gross test, adjustments may still need to be made. Adjustments for graduate medical education and approved capital projects would need to be considered. Other possible adjustments may need to be made for “excluded services” to be separately accounted for within the base as well as the rate year. These adjustments might include the possibility of carving out “traveler revenues” for patients who are using hospitals “out of area” whether by geographic accident (twisted ankle or heart attack at the shore) or by plan (actively choosing a particular distant hospital to provide a specialty service -organ transplant or CABG).
	3. Refinements such as those above may be merited but should be guided by data demonstrating the need for additional adjustments after a base model has been established rather than by speculation about what services or patients should be treated differently in order to produce a logical distribution of revenue.

## Conclusion

Summing people’s individual choices of hospital to provide their services rather than using the accumulated share of dollars spent or services provided at a hospital retains the full importance of each individual patient choice (incenting superior patient experience and perceived quality) while eliminating or minimizing the advantage of providing a greater volume of services to any individual patient. In a system that allocates revenue by measuring each patient only once, the provision of additional services is much less likely to add revenue, but it will certainly add cost. This will set hospital incentives more in line with the objectives of the demonstration model – contain cost while improving quality and patient experience without the necessity of pre-deciding what level of “potentially” avoidable revenue is easiest or most appropriate for elimination through regulation. Such incentive could be expected to promote greater cooperation among institutions (and with the HSCRC) to change the utilization patterns that previously would have shown up as increased market share. The flexibility of the incentive may well result in various institutions investing in different approaches to reduce unnecessary services. This should allow creativity that will be needed in order to achieve the aggressive revenue limits, and do so while automatically maintaining absolute compliance with the overall statewide target.

The data exists to test this approach for accuracy and equity in the manner described above. We believe that needs to happen. If that test produces our expected results (and preliminary statewide data analysis shows that "splitting" is not in fact prevalent and allocating users by hospital is likely easier than might be expected) we believe this approach would merit serious consideration for its ability to ensure compliance with Federal requirements, its outstanding alignment of incentives with the triple aim, and its simplicity. We stand ready to work with the HSCRC on the testing and further discussion.

1. Poss. Footnote: Over time in order to make people share most effective, consideration should be given to a new methodology for allocating education and long-term (capital) funds [↑](#footnote-ref-1)
2. The compliance corridor under the GBR arrangements establishes a compliance threshold of 0.5 percentage points, so the Commission could argue that the system’s exposure is 0.5 percentage points. This argument would presume that hospitals would generally attempt to hit the upper limit of the compliance corridor. [↑](#footnote-ref-2)
3. The above approach does not take into account the variance in efficiency that might exist within one institution’s inpatient and outpatient services. This issue may require special consideration to refine the people share calculation [↑](#footnote-ref-3)