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DEPARTMENT OF HEALTH AND MENTAL HYGIENE



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**HEALTH SERVICES COST REVIEW COMMISSION**

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**498th MEETING OF THE HEALTH SERVICES COST REVIEW COMMISSION  
June 5, 2013**

**EXECUTIVE SESSION**

**12:15 p.m.**

1. Waiver Update
2. Personnel Matters

**PUBLIC SESSION OF THE  
HEALTH SERVICES COST REVIEW COMMISSION**

**1:00 p.m.**

1. Review of the Minutes from the Executive Session and Public Meeting Minutes from May 1, 2013
2. Executive Director's Report
3. Docket Status – Cases Closed  
  
2204N – St. Agnes Hospital  
2205N – MedStar Harbor Hospital  
2206A – Johns Hopkins Health System  
2207A – Johns Hopkins Health System
4. Docket Status – Cases Open  
  
2208R – Southern Maryland Hospital Center  
2209A – University of Maryland Medical Center  
2210A – Johns Hopkins Health System  
2211A – Johns Hopkins Health System
5. Final Recommendations for FY 2014 Update Factor
6. Final Recommendation on Modifications to the Outlier Trim Methodology
7. Final Recommendation on FY 2014 Nurse Support Program II Competitive Institutional Grants

- 8. Report on Changes to Quality Based Reimbursement (QBR) Program for FY 2015**
- 9. Hearing and Meeting Schedule**

H.S.C.R.C's CURRENT LEGAL DOCKET STATUS (OPEN)

AS OF MAY28, 2013

A: PENDING LEGAL ACTION : NONE  
 B: AWAITING FURTHER COMMISSION ACTION: NONE  
 C: CURRENT CASES:

Docket Number	Hospital Name	Date Docketed	Decision Required by:	Rate Order Must be Issued by:	Purpose	Analyst's Initials	File Status
2208R	Southern Maryland Hospital Center	5/6/2013	6/5/2013	10/3/2013	PEDS	CK	OPEN
2209A	University of Maryland Medical Center	5/17/2013	N/A	N/A	ARM	DNP	OPEN
2210A	Johns Hopkins Health System	5/28/2013	N/A	N/A	ARM	DNP	OPEN
2211A	Johns Hopkins Health System	5/28/2013	N/A	N/A	ARM	DNP	OPEN

NONE

PROCEEDINGS REQUIRING COMMISSION ACTION - NOT ON OPEN DOCKET

**IN RE: THE APPLICATION FOR  
ALTERNATIVE METHOD OF RATE  
DETERMINATION**

**UNIVERSITY OF MARYLAND  
MEDICAL CENTER  
BALTIMORE, MARYLAND**

**\* BEFORE THE MARYLAND HEALTH  
\* SERVICES COST REVIEW**

**\* COMMISSION**

**\* DOCKET: 2013**

**\* FOLIO: 2019**

**\* PROCEEDING: 2209A**

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**Staff Recommendation**

**June 5, 2013**

## **I. INTRODUCTION**

University of Maryland Medical Center (the Hospital) filed an application with the HSCRC on May 28, 2013 for an alternative method of rate determination, pursuant to COMAR 10.37.10.06. The Hospital requests approval from the HSCRC to continue to participate in a global rate arrangement for liver and blood and bone marrow transplants for a period of one year with Cigna Health Corporation beginning July 1, 2013.

## **II. OVERVIEW OF APPLICATION**

The contract will be held and administered by University Physicians, Inc. ("UPI"), which is a subsidiary of the University of Maryland Medical System. UPI will manage all financial transactions related to the global price contract including payments to the Hospital and bear all risk relating to services associated with the contract.

## **III. FEE DEVELOPMENT**

The hospital portion of the global rates was developed by calculating historical charges for patients receiving the procedures for which global rates are to be paid. The remainder of the global rate is comprised of physician service costs. Additional per diem payments were calculated for cases that exceed a specific length of stay outlier threshold.

## **IV. IDENTIFICATION AND ASSESSMENT OF RISK**

The Hospital will submit bills to UPI for all contracted and covered services. UPI is responsible for billing the payer, collecting payments, disbursing payments to the Hospital at its full HSCRC approved rates, and reimbursing the physicians. The Hospital contends that the arrangement between UPI and the Hospital holds the Hospital harmless from any shortfalls in payment from the global price contract.

## **V. STAFF EVALUATION**

The staff found that the Hospital's experience under this arrangement for the previous year was favorable.

## **VI. STAFF RECOMMENDATION**

The staff recommends that the Commission approve the Hospital's application for an alternative method of rate determination for liver and blood and bone marrow transplant services, for a one year period commencing July 1, 2013. The Hospital will need to file a renewal application to be considered for continued participation.

Consistent with its policy paper regarding applications for alternative methods of rate determination, the staff recommends that this approval be contingent upon the execution of the standard Memorandum of Understanding ("MOU") with the Hospital for the approved contract. This document would formalize the understanding between the Commission and the Hospital, and would include provisions for such things as payments of HSCRC-approved rates, treatment of losses that may be attributed to the contract, quarterly and annual reporting, confidentiality of data submitted, penalties for noncompliance, project termination and/or alteration, on-going monitoring, and other issues specific to the proposed contract. The MOU will also stipulate that operating losses under the contract cannot be used to justify future requests for rate increases.

**IN RE: THE APPLICATION FOR  
ALTERNATIVE METHOD OF RATE  
DETERMINATION  
JOHNS HOPKINS HEALTH  
SYSTEM  
BALTIMORE, MARYLAND**

**\* BEFORE THE MARYLAND HEALTH  
\* SERVICES COST REVIEW  
\* COMMISSION  
\* DOCKET: 2013  
\* FOLIO: 2021  
\* PROCEEDING: 2211A**

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**Staff Recommendation**

**June 5, 2013**

## **I. INTRODUCTION**

Johns Hopkins Health System (the "System") filed an application with the HSCRC on May 28, 2013 on behalf of Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center (the Hospitals) for an alternative method of rate determination, pursuant to COMAR 10.37.10.06. The System requests approval from the HSCRC to continue to participate in a global rate arrangement for solid organ and bone marrow transplant services with MultiPlan, Inc. for a period of one year beginning July 1, 2013.

## **II. OVERVIEW OF APPLICATION**

The contract will continue to be held and administered by Johns Hopkins HealthCare, LLC ("JHHC"), which is a subsidiary of the System. JHHC will continue to manage all financial transactions related to the global price contract including payments to the Hospitals and bear all risk relating to regulated services associated with the contract.

## **III. FEE DEVELOPMENT**

The hospital portion of the global rates was developed by calculating mean historical charges for patients receiving solid organ and bone marrow transplant services at the Hospitals. The remainder of the global rate is comprised of physician service costs. Additional per diem payments were calculated for cases that exceed a specific length of stay outlier threshold.

## **IV. IDENTIFICATION AND ASSESSMENT OF RISK**

The Hospitals will continue to submit bills to JHHC for all contracted and covered services. JHHC will continue to be responsible for billing the payer, collecting payments, disbursing payments to the Hospitals at their full HSCRC approved rates, and reimbursing the physicians. The System contends that the arrangement among JHHC, the Hospitals, and the physicians holds the Hospitals harmless from any shortfalls in payment from the global price contract. JHHC maintains it has been active in similar types of fixed fee contracts for several years, and that JHHC is adequately capitalized to bear the risk of potential losses.

## **V. STAFF EVALUATION**

Although there has been no activity under this arrangement, staff continues to believe that



the Hospitals can achieve a favorable experience under this arrangement.

## **VI. STAFF RECOMMENDATION**

The staff recommends that the Commission approve the Hospitals' application for an alternative method of rate determination for solid organ and bone marrow transplant services, for a one year period commencing July 1, 2013. The Hospitals will need to file a renewal application for review to be considered for continued participation. Consistent with its policy paper regarding applications for alternative methods of rate determination, the staff recommends that this approval be contingent upon the execution of the standard Memorandum of Understanding ("MOU") with the Hospitals for the approved contract. This document would formalize the understanding between the Commission and the Hospitals, and would include provisions for such things as payments of HSCRC-approved rates, treatment of losses that may be attributed to the contract, quarterly and annual reporting, confidentiality of data submitted, penalties for noncompliance, project termination and/or alteration, on-going monitoring, and other issues specific to the proposed contract. The MOU will also stipulate that operating losses under the contract cannot be used to justify future requests for rate increases.

# Update Factor Recommendation for FY2014

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June 5, 2013

## DISCUSSION

### 1. Introduction

Maryland's all payer system was established with specific goals in mind – to provide access to care by funding uncompensated care for hospitals, to provide sufficient revenue for efficient and effective hospitals, and to provide that funding with equity across payers. The lynchpin of this system has been the State's Medicare waiver, exempting Maryland from national Medicare payment methodologies and allowing the HSCRC to set rates for all payers – governmental, commercial, and self-pay.

The system is under pressure from a number of factors. Health care reform has altered the concept of efficiency in healthcare. There has been an increasing recognition that true efficiency is not achieved at the level of the hospital discharge but more at the level of providing population-based health. When the existing waiver was developed, the concern was the length of stay within a hospital discharge and the utilization of resources within that stay. The focus of care has now shifted from a single discharge to an episode of care across multiple settings or even to the care of a population through prevention of illness and management of disease as the emphasis for efficient care delivery.

In that vein, the HSCRC has begun to adopt methodologies to encourage improved provision of services across settings by reducing preventable readmissions, and by providing capped revenue for hospital services to encourage the provision of care at lower levels of acuity. These initial steps were designed to reduce cost and improve patient care – to positively impact the health of Maryland citizens being served by the State's hospitals. These are the HSCRC's first steps in achieving health care reform's three part aim in Maryland.

These steps, however, are out of sync with the existing waiver with its focus on the average Medicare payment per case in Maryland versus the nation. While measures to reduce short stays, to reduce readmissions, or to cap revenue for hospital-based services in rural facilities provide incentives to remove cases from inpatient care, the out-migrating cases tend to be the least expensive cases. These policies have increased the payment per case for the remaining cases, including Medicare cases. The consequence has been to erode Maryland's waiver position.

Concurrent with these factors, the State has submitted an application to CMS for an alternative model design in Maryland. That application would commit the State, over the next five years, to limiting inpatient and outpatient hospital costs for all payers to a trend based on the State's long-term Gross State Product (GSP). There would be a separate guarantee of inpatient and outpatient hospital per beneficiary cost growth below a Medicare benchmark. In order to organize around the goal of constraining per capita cost growth, Maryland will accelerate a broad range of delivery reform efforts.

The system is now at a crossroads with a system that is built to the existing waiver test and the potential to move to an alternative model design predicated on reducing per capita costs. In line with the timing of the model design proposal, at its May 1, 2013 public meeting, the Commission indicated that it expects to take final action at the June 2013 Commission meeting on a simplified FY2014 update factor that takes into consideration, among other things, factor cost inflation, sequestration, financial

condition, and waiver cushion. This recommendation incorporates the desire for a simplified update factor to bridge the potential gap between the existing waiver incentives and one based on per capita costs.

## 2. Status of the Waiver

The current waiver test compares the cumulative growth rate in Medicare expenditures per inpatient discharge for Maryland versus the U.S. The State passes the waiver test as long as Maryland's cumulative growth in the Medicare payments per case does not exceed the cumulative growth of payments per case nationally. The base year for this test is 1981, when Maryland's payment per case was \$2,971.65, and the nation's was \$2,293.09.

### Waiver Status

Each quarter, the Centers for Medicare & Medicaid Services (CMS) provides to the HSCRC a letter comparing Maryland's cumulative rate of growth to the national rate of growth. In the most recent letter from CMS reflecting data as of March 2012, Maryland's cumulative growth stood at 368.6 percent while the nation stood at 375.3 percent; Maryland stood at \$13,927 per Medicare discharge, while the nation stood at \$10,904 per Medicare discharge. If the nation's growth were to remain unchanged going forward, Maryland payments per discharge could rise by 1.47 percent before we failed this test. (We refer to this last measure as "the relative waiver test.")

We attribute the recent decline in the waiver cushion as indicated in the CMS letter to the reduction in one-day stays, the increase in assessments, and funding for the Admission-Readmission Revenue (ARR) and Total Patient Revenue (TPR) programs. Under the one-day stay policy, the HSCRC excluded these short stays from the Charge per Case (CPC) methodology, thereby, incentivizing hospitals to move these stays from inpatient care. As a consequence, the remaining cases are now more expensive on average. We continue to observe this trend as one-day cases continue to convert to observation status.

### Waiver Cushion Forecast

The waiver letters from CMS typically lag current events by 15 to 18 months. HSCRC staff bridge the time lag between the waiver letter and today by developing and reviewing a number of reports. *Monitoring Maryland Performance*, an HSCRC monthly report, for year ending March 2013 shows that the Charge per Case declined by 0.17 percent. Data showing current one-day stay trends and data on the impacts of TPR and ARR also indicate an improved waiver cushion over the initial waiver forecast for YE June 2013 and 2014.

During the update factor discussions last year, the Commission forecasted a waiver cushion of 0.62 percent for YE June 2012 and 1.14 percent for YE June 2013 based on available data at that time. When HSCRC staff updated the model to include data through YE March 2013 (including the latest CMS waiver letter with data YE March 2012), the forecasted waiver cushion increased to 1.82 percent for YE June 2012, and 4.44 percent for YE June 2013. The two primary reasons for the variance in the waiver cushion for YE June 2013 are underestimation of the US Payment per Admission (PPA) and overestimation of the MD Payment per Admission (PPA).

Table 1 illustrates the magnitude of the variance in the US and Maryland PPA between what was estimated as of June 2012 to the actual experience as of May 2013. In the March 2012 CMS actuarial forecast, CMS estimated US growth to be 2.54 percent. When the CMS actuary updated the forecast in March 2013, the US growth increased to 3.03 percent (Row 2, Column G). This difference accounts for 0.49 percent of the variance in FY 2012 (Row 2, Column H).

**Table 1: FY 2014 Update Variance Detail**

		Modeled as of June 2012	Modeled as of March 2013	Difference	Reconciliation	Modeled as of June 2012	Modeled as of March 2013	Difference
	A	B	C	D	E	F	G	H
1	YE J12 Waiver Cushion	0.62%	1.82%	<b>1.20%</b>	MD Growth	6.66%	5.70%	0.96%
2					US Growth	2.54%	3.03%	-0.49%
3	YE J13 Waiver Cushion	1.14%	4.44%	<b>3.30%</b>	MD Growth	1.50%	-0.91%	2.41%
4					US Growth	2.02%	1.65%	0.38%

Total Difference	<b>3.25%</b>
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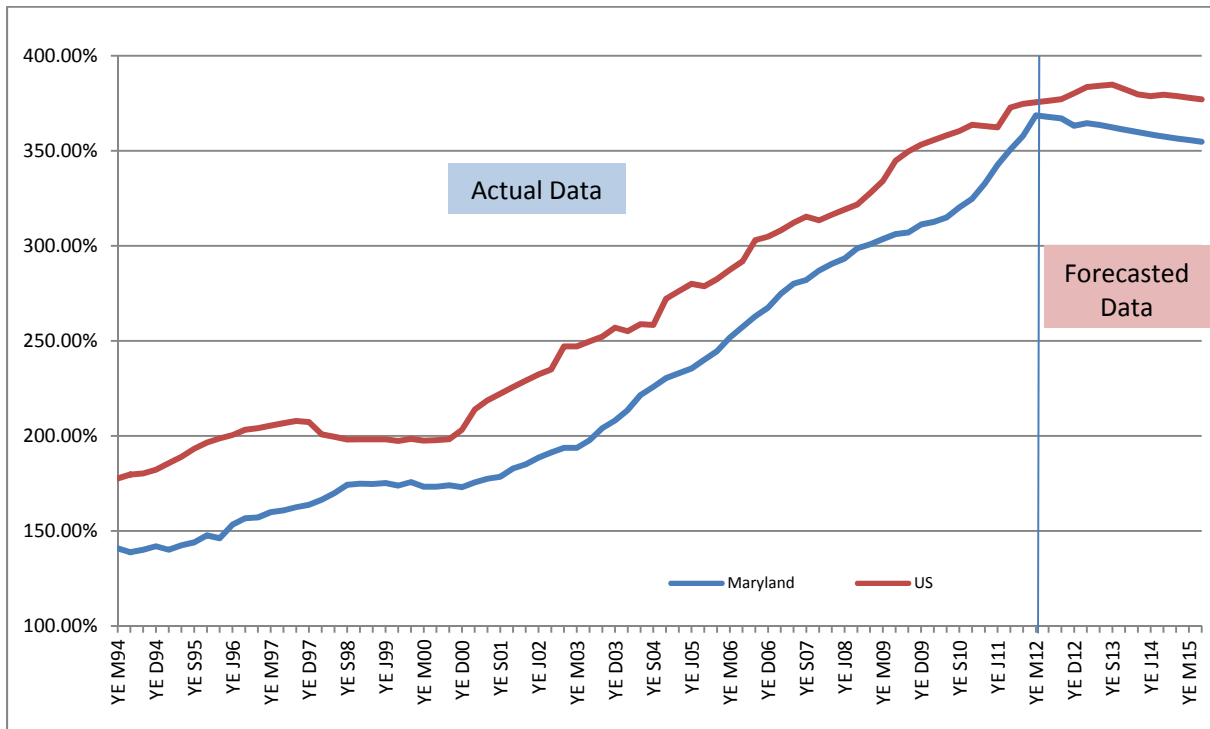
Several factors contributed to the overestimate of the FY 2013 Maryland growth. Case mix data for YE March 2012 showed the Medicare Charge per Case growing at 7.66 percent. If the trend had continued, the waiver cushion for YE June 2012 would have been 0.62 percent (Column B). At its March 2012 meeting, the Commission approved emergency action to preserve the waiver by shifting revenue from routine inpatient centers to ancillary centers that cross inpatient and outpatient centers, effective January 1, 2012. Staff modeled the impact of this shift on the waiver to be about 1.00 percent, which would have reduced the Medicare CPC growth for YE June 2012 to 6.66 percent (Row 1, Column F). However, based on current HSCRC Case Mix data, actual CPC growth for YE June 2012 was 5.70 percent, a difference of 0.96 percent (Row 1, Column H). The overestimate of MD Medicare CPC from FY 2012 carried over into FY 2013.

The staff model for FY 2013 growth included an estimate of 3.8 percent growth due to one day stay, ARR and TPR policies and with the additional impact of continued cost realignment and other adjustments. Based on these adjustments, the model projected the Medicare CPC would increase by 1.50 percent (Row 3, Column F). However, based on actual HSCRC case mix data, the CPC growth for YE June 2013 was -0.91 percent, a difference of 2.41 percent (Row 3, Column H).

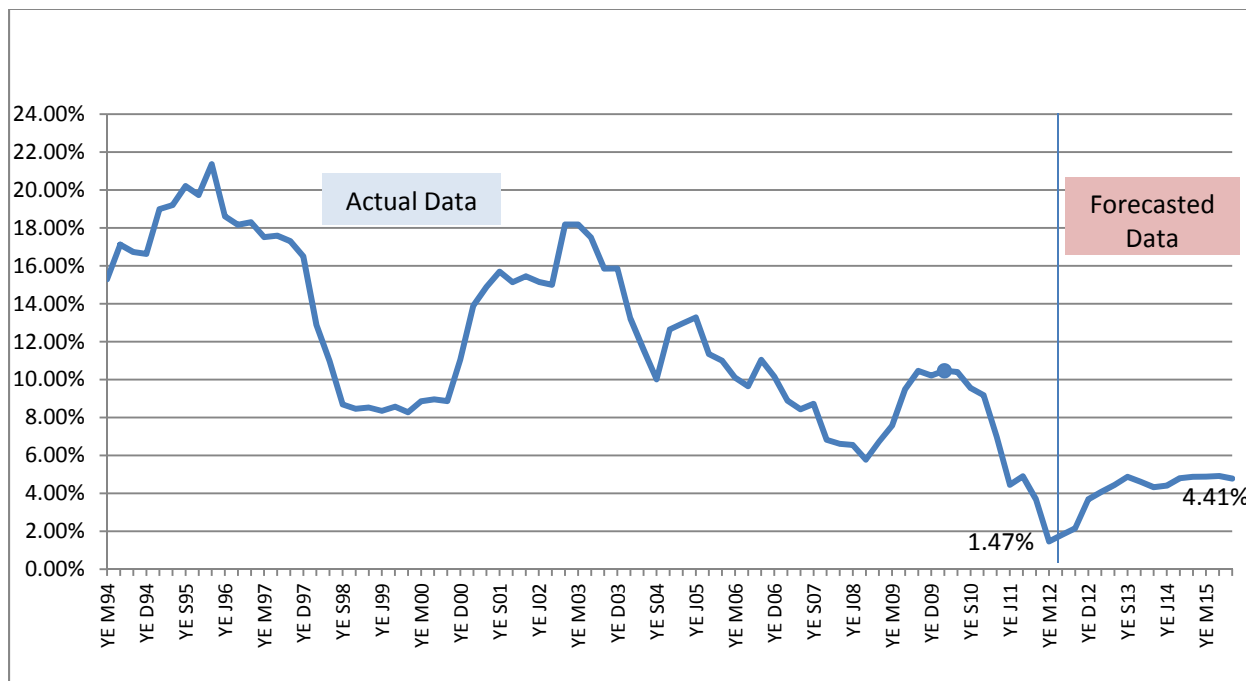
In addition, the YE March 2012 CMS waiver letter identified another forecasting issue. As discussed previously, HSCRC staff bridge the time lag between the waiver letter and today using a number of data sources. In past years, when CMS reported the actual Maryland Medicare payment per admission growth in the CMS waiver letter, we found that HSCRC's forecasted bridge estimate was nearly identical to the actual growth CMS reported. In other words, HSCRC's case mix data well predicted the actual Maryland PPA growth rate reported in the CMS waiver letter.

However, in the most recent CMS waiver letter from March 2012, CMS reported Maryland growth in Medicaid PPA about 1 percent higher than HSCRC forecasted last year using case mix data. Staff believes one contributor could be the result of increased denials in Maryland during that period, potentially due the impact of federal Recovery Audit Contractors (RAC). Based on these factors Figures 1 and 2 below show the current waiver forecast and the relative waiver forecast through YE 2015, assuming 0 percent update for FY 2014 & FY 2015 and -0.31 percent governor on one day stay cases (ODS) for FY 2014.

**Figure 1: US vs. MD Medicare Payment Per Admission Growth.**



**Figure 2: Relative Waiver Test**



Based on most current trends reflecting the impact of one-day stays, the ARR and TPR effect, and the charge per case trends, HSCRC staff expects the waiver cushion to stabilize. Assuming a 0 percent update factor for FY 2014-2015 and -0.31 percent governor on ODS for FY 2014, staff projects the waiver cushion to be:

- YE June 2013 – 4.44%
- YE June 2014 – 4.41%
- YE June 2015 – 4.91%

These levels are far below the Commission’s current 7 percent “tripwire” policy below which the Commission commits to corrective action. It is also clear from recent history that unexpected changes can occur to impact the forecast. Such changes have shown to impact the forecast in both directions. The forecast could be positively impacted through potential adjustments to the national waiver data or the implementation of the CMS proposed rule.

HSCRC staff and consultants, working on behalf of the MHA, have worked with CMS actuaries to understand how the national data are calculated. Last year, these discussions resulted in recognizing zero dollar claims where Medicare is the secondary payer (MSP) in the national data that were artificially reducing the payment per case nationally compared to Maryland. Staff has been working with consultants to identify other anomalies such as Indirect Medical Education shadow payments under Medicare Advantage (estimated to increase the cushion by 2.5 percent), and potentially additional zero dollar MSP claims (estimated to increase the cushion by 2 percent). Despite multiple communications and sustained efforts by HSCRC staff, previous experience indicates that it takes time for CMS actuaries to recognize, confirm, and include any such changes in a CMS waiver letter. Given the fact that the

waiver is well below the tripwire level, HSCRC staff, in our forecast, does not assume that any such changes will take effect during the forecast periods.

In addition, the recently released IPPS rule, if adopted, would increase Medicare payments by 0.7 percent, increasing the waiver margin by 0.56 percent. One major difference between the previous forecast received from the CMS actuary and the proposed rule is the inclusion of DSH reductions in 2014 using estimates of reduction in the number of uninsured instead of implementing this change in 2015. Another significant change is the reduction in the offset for documentation and coding; initially projected to be -2.0 percent, but in the preliminary rule, it is projected to be -0.8 percent. Recent history indicates, as shown in Table 2, that the proposed IPPS rule rarely is adopted as proposed and the result can be either positive or negative.

**Table 2: Historical Full IPPS Updates – Proposed and Final**

	Proposed	Final	% Difference
FFY 2009	3.00%	3.60%	0.60%
FFY 2010 (q1-2)	2.10%	2.10%	0.00%
FFY 2010 (q3-4)		1.85%	-0.25%
FFY 2011	2.40%	2.35%	-0.05%
FFY 2012	1.50%	1.90%	0.40%
FFY 2013	2.10%	1.80%	-0.30%

As indicated in this Section, there are many factors that resulted in a variation in the YE June 2012 waiver margin forecast – one-day length of stay impact, increased assessments, underestimating national payment per admission, and overestimating Maryland’s payment per admission. Further, when the waiver margin was at a much higher level, the forecast did not involve the same level of scrutiny and detail currently being undertaken by staff. Staff is hopeful that this year’s exercise will reduce the level of forecasting error in the future.

### **3. Financial Condition of Hospitals**

In deciding how to proceed in this challenging environment, preserving the waiver is the primary goal. However, as staff is forecasting some waiver cushion this year, in this year's update, we are also reflecting upon hospitals' financial conditions, as well as the affordability of care to the patients in Maryland hospitals.



**Table 3: Summary of Hospital Profits and Losses,  
2008 through March 2013 (in thousands)**

	Operating Profit Regulated	Operating Profit Unregulated	Operating Profit Total	Net Non Operating Profit	Excess Profits
9 Months Ending Mar. 2013*	\$385,373.0	(\$314,906.5)	\$70,466.5	\$264,200.3	\$334,666.8
	4.05%	-38.95%	0.68%		3.63%
9 Months Ending Mar. 2012*	\$590,602.2	(\$317,882.4)	\$272,719.8	(\$5,088.0)	\$267,631.8
	6.31%	-37.83%	2.67%		2.61%
YE August 2012 Only	\$727,353.7	(\$430,308.3)	\$297,045.4	(\$85,976.3)	\$211,069.1
	6.41%	-37.83%	2.38%		1.70%
YE Dec. 2011	\$897,429.5	(\$433,073.3)	\$464,356.2	\$385,462.0	\$849,818.2
	7.44%	-38.40%	3.52%		6.26%
YE Dec. 2010	\$714,950.0	(\$386,837.5)	\$328,112.5	\$153,034.1	\$481,146.6
	6.22%	-34.99%	2.60%		3.77%
YE Dec. 2009	\$665,582.5	(\$346,274.3)	\$319,308.2	(\$240,541.2)	\$78,767.0
	5.90%	-3351.00%	2.59%		0.65%
YE Dec. 2008	\$561,641.2	(\$290,839.4)	\$270,801.8	(\$113,347.0)	\$157,454.8
	5.25%	-30.13%	2.32%		1.36%

\*After Reclassification of Expenses from Reg. to Unregulated

Table 3 shows both operating and excess (total) margins between CY2008 and the nine months ending March 2013. Between 2008 and March 2012, despite continued losses on unregulated activities, operating margins ranged from 2.32 percent to 3.52 percent. However, during the nine months ending March 2013, the operating margins have declined to 0.68 percent compared to the nine months YE March 2012. Excess margins have increased from 2.61 percent to 3.63 percent, representing improved investment portfolios.

The recent decline in operating margins can be attributable to two major factors:

- Lower than usual revenue growth due to an historically low FY 2013 update factor of 0.3 percent, and lower than usual volume growth; and
- Growth in expenses greater than expected for FY 2013.

For FY 2013, the Commission, based on the expectation that the waiver cushion was at 0.62 percent, adopted an update factor of -1.00 on inpatient and +2.59 percent on outpatient for a combined update factor of +0.3 percent. For the nine-month period YTD March 2013 compared to the same period in 2012, gross patient revenue increased by 1.71 percent. At the same time, total operating expenses have increased by 3.30 percent percent on combined regulated and unregulated business. Global Insights currently estimates inflation to be 2.1 percent for the entirety of FY 2013. Additionally, based on an

estimated volume increase of approximately 1 percent, it can reasonably be expected that expenses might include an additional 0.5 percent (assuming costs are 50 percent variable).

Commission data cover the period through March of 2013, but beginning in April of 2013, Maryland hospitals will incur reimbursement reductions as a result of the Medicare Sequester cuts. For payments made under Medicare Parts A and B, the sequester results in percentage reductions to individual payments to providers for services (e.g., hospital and physician services). Reductions are to be made at a uniform rate and are not to exceed 2 percent. The potential impact on Maryland hospitals is approximately \$7-8 million per month.

#### **4. Waiver Modernization**

The conflict between the Commission's efforts to meet the objectives of health care reform and the antiquated waiver test highlights the need for waiver modernization. Healthcare in the United States is facing critical challenges in access to care, cost, and outcomes. To address these challenges, Maryland submitted an initial proposal to CMS in March 2013 to build on the strengths of our health care system and modernize our unique approach to all-payer hospital rate-setting.

The State proposal would, over the next 5 years, focus on limiting inpatient and outpatient hospital costs for all payers to a standard based on the State's long-term Gross State Product (GSP) on a per capita basis. There would be a separate guarantee of inpatient and outpatient hospital per beneficiary cost growth below a Medicare benchmark.

At this point, the State awaits further discussions with CMS. Timelines for continued discussion and the eventual effective date remain uncertain. Therefore, the Commission must take these discussions into consideration when determining the update factor for FY 2014, since there is a potential that a new per-capita based test could become effective during the course of the Fiscal Year.

#### **5. Update Factor Discussions and Proposals**

Since April 19, 2013, Commission staff has met 7 times with representatives of hospitals and payer groups, both together and separately. The parties discussed their expectations for a simplified update factor, providing an update based on a stub period, how and when rate adjustments can be made, the waiver forecast, and the financial condition of hospitals. After several meetings, the various parties presented their proposals for a FY 2014 update factor. The hospital and payers representatives altered their proposals during the course of the discussions. Table 4 below summarizes the proposals.

As requested by the Commission at its May meeting, staff took into account the status of the current waiver margin, the financial condition of hospitals, the projected increases in expenses due to inflation, and ways to simplify the implementation of the update factor.

Due to the uncertainty of whether new per-capita waiver metrics will apply in FY 2014, and in the interest of producing rate orders as quickly as possible, HSCRC staff proposes that the update factor be applied to all existing unit rates and charge targets for a stub period beginning on July 1, 2013 and ending on December 31, 2013. Staff expects this period will provide time to better understand the status and potential timing of a new model design. In addition, staff is proposing that the settlement of

all one-time adjustments in rates and other adjustments and assessments that would traditionally be effective July 1, 2013 be deferred to January 1, 2014. Those adjustments, however, should be made in a manner that would achieve the same impact during the course of the Fiscal Year 2014.

All parties used the Market Basket as provided in the first quarter book for CY 2013. The market basket for this period is 2.31 percent. Each party then applied a policy taking into account various factors. A key element for staff was the impact that the proposed update factor would have on the waiver margin. Table 4 projects how each update factor would impact the waiver margin by YE December 2013 and YE June 2014. The margin is displayed showing the waiver impact without the 0.7 percent impact of the IPPS proposed rule.

The waiver modeling for all parties' proposals assume that there is no reduction for the one day stay case mix growth adjustment of -0.31 percent as approved by the Commission in March 2012. The March 2012 recommendation provided that the Commission consider including one-day stay cases at the case specific weight in the calculation of case mix for the purposes of calculating the case mix governor for FY 12. Commission staff deferred this adjustment for FY 2013; staff now recommends against inclusion as the waiver cushion forecast has improved.

We display update factor proposals in Table 4. The notes in the table describe the calculations of the policy adjustments:

- HSCRC staff applied a productivity adjustment of Market Basket minus labor costs, which represented 58.8 percent of all Market Basket costs (and adjusted for a factor that represents capital costs). Staff then applied a financial condition adjustment of 0.72 percent to recognize the decline in operating margins.
- The Maryland Hospital Association (MHA) applied a -0.40 percent productivity adjustment to 50 percent of costs which are considered to be labor costs. A -0.40 percent productivity adjustment was also used by CMS for Medicare purposes, but CMS applied it to all costs, not just to estimated labor costs. MHA also included a factor that represents half of the expected waiver impact on hospitals.
- The CareFirst and United proposal applied a 0.96 percent productivity factor as a means to attempt to move costs in Maryland closer to 6 percent below the nation, and to constrain update factors as proposed when ARR and one day length of stay policies were initiated. CareFirst/United also notes that their proposal is conditional upon the Commission's agreeing to recognize the full effect of the UCC, ARR, and Volume adjustments in FY 2014. Therefore, if these policy adjustments are delayed until January 1, 2014, the full effect or double the value will be recovered over the 6 month period January 1, 2014 through June 30, 2014.

HSCRC staff proposal is expected to result in a waiver cushion by June 2014 of 2.57 percent, while MHA would leave a cushion of 1.85 percent, and CareFirst/United, 2.85 percent.<sup>1</sup>

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<sup>1</sup> The YE June 2014 waiver cushion projections assume the following: 1.30 percent adjustment for ODS, ARR, and TPR methodologies, -2 percent adjustment for the impact of sequester.

**Table 4: Update Factor Proposals and Waiver Cushion Analysis**

**Based on Global Insights First Quarter Book for Calendar Year 2013**

	<b>HSCRC Staff Overall</b>	<b>MHA Overall</b>	<b>CareFirst/United Overall</b>
<b>Market Basket (Global Insights)</b>	2.31%	2.31%	2.31%
Policy Adjustment	-0.66%	-0.20%	-0.96%
Sequester Adjustment		0.32%	
<b>Base Update</b>	<b>1.65%</b>	<b>2.43%</b>	<b>1.35%</b>
Case Mix Allowance	0.00%	0.00%	0.00%
<b>Max. Base Update Plus Case Mix Change</b>	<b>1.65%</b>	<b>2.43%</b>	<b>1.35%</b>
<i>YE Dec 13 Cushion w/o Prelim rule</i>	<i>3.55%</i>	<i>3.18%</i>	<i>3.69%</i>
<b>YE Jun 14 Cushion w/o Prelim rule</b>	<b>2.57%</b>	<b>1.85%</b>	<b>2.85%</b>
<i>YE Dec 13 Cushion w/Prelim rule</i>	<i>3.73%</i>	<i>3.36%</i>	<i>3.87%</i>
<b>YE Jun 14 Cushion w/Prelim rule</b>	<b>3.11%</b>	<b>2.39%</b>	<b>3.39%</b>

Notes:

HSCRC - Does not apply the One Day Stay case mix growth adjustment of -0.31% in FY14 per March 2012 Recommendation

HSCRC - Policy Adjustment is MB minus labor costs plus financial condition adjustment (2.31%-1.38%) +.72%

HSCRC - Governs state-wide case mix change to 0.0%

MHA - Does not apply the One Day Stay case mix growth adjustment of -0.31% per March 2012 Recommendation

MHA - Policy Adjustment is CMS Productivity of -0.40% applied to labor costs only (determined to be 50% of all costs)

MHA - Includes no increase for case mix change

CareFirst/United - Policy Adjustment of 0.96% to move costs toward 6% below nation, constrain updates under ARR and ODS policies

CareFirst/United - Governs state-wide case mix change to 0.0%

CareFirst/United - conditional upon recognizing the full effect of the UCC, ARR, and Volume adjustments in FY 2014

CareFirst/United - Does not apply the One Day Stay case mix growth adjustment of -0.31% in FY14 per March 2012 Recommendation

## RECOMMENDATIONS for FY2014 Rates

Based on the preceding discussion, the staff proposes:

***Recommendation 1: Apply an update factor of 1.65 percent to both inpatient and outpatient rates of all hospitals for which the Commission sets rates for a stub period of July 1, 2013 through December 31, 2013; and revisit the update factor for the period January 1, 2014 through June 30, 2014 taking into consideration, among other things, the status of the model design application and related implications (such as aggregate spending), factor cost, the waiver cushion, and financial condition.***

The staff believes that an update factor of 1.65 percent is sufficient to generate a minimal waiver cushion (of 3.55 percent by January 2013 and 2.57 percent by July 2014), and to provide some financial relief to hospitals as the model design is being considered by CMS. This recommendation assumes that case mix will be governed on a statewide basis at 0 percent.

Prior to January 2014, staff will revisit the update factor given the environment at the time. In doing so, staff will take into consideration, among other things, factor cost, waiver status (under the existing or an alternative waiver model), and financial condition.

All parties have noted the considerable uncertainty regarding:

- The potential for an alternative waiver model;
- Waiver projections;
- Potential adjustments to the waiver calculations related to national payments;
- The potential impact of the final Inpatient Prospective Payment System (IPPS) rule which if adopted could improve the current waiver forecast by 0.7 percent (expected to be final in August 2013); and
- The financial condition of hospitals.

Staff will work with the industries to better understand these issues prior to making any recommendations regarding an update factor and any necessary policy changes beginning January 2014.

***Recommendation 2: Apply all adjustments and assessments for FY 2014 on January 1, 2014 in a manner that would have the full annual impact for the Fiscal Year.***

This would allow the update factor to be applied to all unit rates and charge targets in an expedited manner. Staff will calculate the settlement of all one-time adjustments and new assessments, such as MHIP and the Health Care coverage fund, as well as annual policy updates such as the volume adjustment and UCC provision effective July 1, 2013 to be incorporated into all unit rates and charge targets on January 1, 2014. Also, the approved outlier methodology will apply to the settlement of charge targets for FY 2014 at July 1, 2014.

***Recommendation 3: Apply Shared Savings on January 1, 2014 in a manner that would achieve the full savings from the program in FY 2014.***

On May 1, 2013, the Commission adopted a recommendation to implement a shared savings approach based on hospital performance in reducing readmissions. The program is designed to achieve a shared savings of 0.3 percent in FY 2014. Specifically, the recommendation states: "For FY 2014, HSCRC staff recommends providing for 0.3 percent shared savings." Recommendation 3 clarifies that the shared savings shall be applied as 0.6 percent (or on a dollar amount basis) beginning on January 1, 2014, so that the desired savings during the course of the Fiscal Year will be achieved.

***Recommendation 4: Permanently Eliminate the One Day Stay Case Mix Adjustment***

As a CPC exclusion since 2010, Commission policy excluded one-day stay cases when calculating case mix growth to determine whether case mix should be governed. In March 2012, the Commission approved a recommendation to include one-day stay cases at the case specific weight in the calculation of case mix growth. HSCRC staff calculated the impact of one day stay case mix growth at -0.31 percent above the already governed case mix growth in FY2012. In establishing the FY 2013 rates, the Commission deferred the impact of this adjustment. As waiver cushion forecasts have improved, staff now recommends eliminating this adjustment. The waiver cushion analysis under all update factor proposals already excludes the -0.31 adjustment.

***Recommendation 5: Continue reallocation of the inpatient revenue for FY2014***

At the March 2012 Commission meeting, the Commission adopted emergency measures to open some waiver room by accelerating the realignment of some inpatient room and board charges to the outpatient setting in anticipation of updated cost reports that would reflect the shift of cases to outpatient observation. The staff estimated that this action would open up 3 percent of waiver room in total. The staff recommends that the Commission continue the inpatient reallocation to outpatient centers approved by the Commission for FY 2012 and FY 2013 into FY 2014 for purposes of rate realignment.

***Recommendation 6: No ROC Scaling for FY2014***

Staff and industry stakeholders have discusses revisiting the Reasonableness of Charges (ROC) methodology and other indicators of hospital efficiency. The staff recommends that there be no ROC scaling in FY2014 as the methodology is reevaluated for FY2015.

# **Final Recommendation on Modifications to the Outlier Methodology**

Health Services Cost Review Commission  
4160 Patterson Avenue Baltimore, MD 21215  
(410) 764-2605

June 5, 2013

This is the final staff recommendation to be presented for Commission action on June 5, 2013.

## Introduction

Outlier cases significantly deviate from the average resource utilization among a group of similar inpatient cases. The HSCRC employs a methodology to account for outlier cases when establishing statewide case weights and in setting each hospital's charge per case/charge per episode (CPC/CPE) target.

This final recommendation proposes that the Commission make modest modifications to the current outlier methodology by:

1. Adding a low trim threshold to accommodate the re-introduction of one day stays to the CPC/CPE methodology;
2. Utilizing case mix data with a proportional adjustment to financial data to support the application of outlier methodology in rate setting activities.

These modifications do not alter the fundamental structure of the hospital-specific outlier trim methodology. In addition, these modifications do not apply to the psychiatric trim methodology.

## Background

While for many years HSCRC policies have accounted for extreme charge cases, today's policies originate from Commission methodology established in the early 2000's when the Commission moved to an All Payer Refined Diagnosis Related Group (APR-DRG) system. Commission policies in 2005 and 2006 moved outlier trims from a statewide to a hospital-specific calculation and implemented limits to the outlier threshold. Most recently, in conjunction with the Commission's removal of one day stays from the CPC, the Commission also removed low trims from the outlier methodology.

It is important to note that for payment purposes, outliers are treated as all other cases: Maryland hospitals charge the payer/patient the full charges based on Relative Value Units (RVUs) and unit rates for reimbursement. This is different from Medicare outlier policies that provide for add-on payments to a base DRG.

As with all HSCRC methodologies, the outlier trim methodology does not exist in a vacuum. Setting CPC/CPE, the Reasonableness of Charges (ROC), Maryland Hospital Acquired Conditions (MHAC) and Quality Based Reimbursement (QBR) scaling, readmission shared savings, and Uncompensated Care (UCC) policy predicted values are all interconnected with the outlier trim methodology.

## Past Commission Actions

The Commission moved from statewide to hospital-specific trims in 2005. Commission action most recently modified the outlier trim methodology in 2010 with the elimination of low trims.

## Current Trim Structure

Under the current methodology, the HSCRC calculates high trim outlier cases on a hospital-specific basis. See Appendix A. The current HSCRC policy does not account for low resource use cases (low trim cases).

For high trims, cases that are designated as an outlier have a calculated amount trimmed according to the units of service utilized once the total charges cross the trim threshold. Hospitals provide internally



audited units for services incurred after the trim threshold. This data collection presents a challenge to both the hospitals and HSCRC because:

1. Many hospitals are unable to determine exactly which units were utilized after the trim point.
2. The auditing and reporting process for the hospitals is lengthy, which in turn delays processes at HSCRC that depend on the hospitals' submitted trimmed units.
3. HSCRC has no way to audit or track the accuracy of the data submitted.

## Proposed Modifications

1. To accommodate the re-introduction of one day stays into the CPC/CPE methodology, HSCRC staff proposes trimming cases with low resource use. On a hospital-specific basis by APR-DRG SOI, HSCRC staff proposes reverting to the pre-2005 low trim level by trimming cases with charges below an average weight multiplier of 0.1726. For cases identified as low trim cases, HSCRC staff will remove both the cases and charges. As displayed in Table 1, HSCRC staff modeling of CY 2011 data finds 2,695 low trim cases accounting for 8.4 million dollar. Table 2 identifies trimmed cases by DRGs.

**Recommendation 1:** Staff recommends trimming cases and revenue associated with low resource use cases.

2. HSCRC staff recommends calculating the revenue, cases, and units to support rate setting from the case mix data with a proportional adjustment to the financial data. This will expedite the rate setting process by eliminating the need for hospitals to quantify and submit trim units to the HSCRC.

**Recommendation 2:** Staff recommends utilizing case mix data with a proportional adjustment to financial data to support the application of outlier methodology in rate setting activities.

**Table 1: Proposed Trim Number of Cases and Total Charges by Hospital for Calendar Year 2011**

Hospid	Hospital Name	Low Trim Outlier		High Trim Outlier		Hospital Total	
		Number of Cases	Charges	Number of Cases	Charges	Number of Cases	Charges
210001	Meritus Medical Center	75	161,898	112	1,937,722	17,860	187,855,232
210002	Univ. of Maryland	317	1,482,587	441	28,572,011	29,330	729,958,344
210003	Prince Georges Hospital	53	150,824	115	2,798,250	14,106	187,454,991
210004	Holy Cross Hospital	172	413,552	251	6,023,631	36,677	330,138,148
210005	Frederick Memorial Hospital	58	137,530	152	2,260,726	21,169	206,486,955
210006	Harford Memorial Hospital	14	46,227	69	1,336,522	5,626	56,563,558
210007	St. Josephs Hospital	29	81,901	153	2,384,841	18,420	223,542,023
210008	Mercy Medical Center, Inc.	49	133,401	124	2,185,000	19,752	231,177,506
210009	Johns Hopkins Hospital	298	1,494,787	1,065	50,502,980	45,323	1,062,294,121
210010	Dorchester General	10	27,533	27	540,672	3,170	31,662,302
210011	St. Agnes Hospital	45	134,635	133	3,696,737	21,113	258,773,712
210012	Sinai Hospital	134	351,755	161	5,362,578	28,581	422,256,792
210013	Bon Secours Hospital	10	33,536	38	593,099	7,015	88,743,460
210015	Franklin Square Hospital	61	222,126	135	3,231,552	24,870	284,876,007
210016	Washington Adventist	87	222,714	130	2,849,333	16,252	201,225,267
210017	Garrett County Memorial	8	20,210	14	44,666	2,564	21,049,487
210018	Montgomery General	26	71,673	56	1,152,095	9,917	94,684,929
210019	Peninsula Regional	48	138,275	135	2,718,327	22,281	269,169,649
210022	Suburban Hospital	33	125,131	110	1,930,963	14,040	180,881,058
210023	Anne Arundel General	128	254,472	213	3,032,724	31,946	300,537,194
210024	Union Memorial Hospital	79	173,812	101	2,606,201	15,551	257,525,276
210027	Sacred Heart Hospital	36	90,833	124	2,129,281	15,704	183,107,006
210028	St. Marys Hospital	8	23,120	47	419,068	9,055	65,706,088
210029	Johns Hopkins Bayview	104	293,960	210	5,114,198	21,574	286,994,176
210030	Chester River	2	1,874	22	305,840	2,993	32,090,227
210032	Union Hospital of Cecil	47	104,783	59	1,043,865	7,241	71,704,330
210033	Carroll County	33	106,654	60	637,787	14,145	154,235,370
210034	Harbor Hospital Center	51	129,763	82	1,572,361	11,924	138,322,794
210035	Civista Medical Center	12	33,029	31	296,060	8,056	72,713,642
210037	Memorial Hospital at Easton	21	53,850	57	1,005,740	9,780	101,402,145
210038	Maryland General Hospital	25	85,896	43	980,632	9,969	130,456,794
210039	Calvert Memorial Hospital	30	51,881	30	496,385	8,550	68,904,413
210040	Northwest Hospital Center	35	111,285	70	994,195	13,247	145,287,349
210043	Baltimore Washington	103	211,343	150	2,566,199	19,343	233,678,411
210044	GBMC	31	140,490	174	2,956,377	23,197	234,875,034
210045	McCready Foundation	3	10,952	5	907,375	472	6,726,221
210048	Howard County	51	107,582	128	2,157,783	19,269	169,160,309
210049	Upper Chesapeake	27	67,188	81	1,127,022	15,052	151,993,384
210051	Doctors Hospital	28	87,534	97	1,847,369	12,519	140,028,434
210054	Southern Maryland Hospital	95	171,475	128	1,652,890	18,492	175,950,580
210055	Laurel Regional Hospital	30	75,719	31	444,617	6,533	61,868,076
210056	Good Samaritan Hospital	68	251,842	60	1,128,082	15,216	207,023,071
210057	Shady Grove Adventist	55	116,648	183	2,748,258	26,128	238,454,372
210058	Kernan Hospital	53	133,302	34	697,399	2,830	52,125,744
210060	Fort Washington	2	2,951	11	29,569	2,275	21,086,502
210061	Atlantic General	11	43,195	15	131,884	3,420	39,386,552
	Statewide Total	2,695	8,385,728	5,667	159,150,864	702,547	8,810,137,035

**Table 2: Proposed Trim Number of Cases and Total Charges by APR DRG for Calendar Year 2011**

APR DRG Code	APR DRG Description	Low Trim Outlier		High Trim Outlier		APR DRG Total	
		Number of Cases	Charges	Number of Cases	Charges	Number of Cases	Charges
3	BONE MARROW TRANSPLANT	0	0	0	0	3	212,107
4	TRACHEOSTOMY W MV 96+ HRS W EXTENSIVE PROCEDURE OR ECMO	10	312,775	94	19,368,849	789	176,663,990
5	TRACHEOSTOMY W MV 96+ HOURS W/O EXTENSIVE PROCEDURE	1	10,581	40	5,224,453	761	96,586,815
20	CRANIOTOMY FOR TRAUMA	0	0	0	0	244	9,247,257
21	CRANIOTOMY EXCEPT FOR TRAUMA	9	71,197	9	494,419	2,089	86,390,357
22	VENTRICULAR SHUNT PROCEDURES	18	149,525	7	383,817	594	19,326,663
23	SPINAL PROCEDURES	12	53,957	12	511,588	781	22,746,134
24	EXTRACRANIAL VASCULAR PROCEDURES	3	10,829	20	500,114	2,107	37,532,638
26	OTHER NERVOUS SYSTEM & RELATED PROCEDURES	2	5,985	10	227,529	836	15,977,549
40	SPINAL DISORDERS & INJURIES	7	12,969	1	8,928	146	2,435,319
41	NERVOUS SYSTEM MALIGNANCY	7	17,925	10	296,846	821	10,871,736
42	DEGENERATIVE NERVOUS SYSTEM DISORDERS EXC MULT SCLEROSIS	10	31,768	29	685,427	1,649	21,339,894
43	MULTIPLE SCLEROSIS & OTHER DEMYELINATING DISEASES	3	6,466	22	259,147	812	9,774,146
44	INTRACRANIAL HEMORRHAGE	36	118,053	14	532,975	1,442	24,187,641
45	CVA & PRECEREBRAL OCCLUSION W INFARCT	29	62,966	55	742,584	8,836	109,764,715
46	NONSPECIFIC CVA & PRECEREBRAL OCCLUSION W/O INFARCT	1	2,166	2	18,889	437	4,119,905
47	TRANSIENT ISCHEMIA	0	0	10	75,071	4,189	28,037,073
48	PERIPHERAL, CRANIAL & AUTONOMIC NERVE DISORDERS	4	7,762	25	251,884	2,576	21,464,424
49	BACTERIAL & TUBERCULOUS INFECTIONS OF NERVOUS SYSTEM	17	61,084	2	149,081	274	7,496,077
50	NON-BACTERIAL INFECTIONS OF NERVOUS SYSTEM EXC VIRAL MENI	11	42,948	2	23,883	332	6,313,474
51	VIRAL MENINGITIS	0	0	1	12,990	648	5,686,107
52	NONTRAUMATIC STUPOR & COMA	11	18,300	29	736,921	2,175	25,869,630
53	SEIZURE	19	38,327	48	862,696	5,746	54,341,034
54	MIGRAINE & OTHER HEADACHES	0	0	13	60,938	2,119	13,795,580
55	HEAD TRAUMA W COMA >1 HR OR HEMORRHAGE	9	27,472	5	100,288	1,086	12,867,382
56	BRAIN CONTUSION/LACERATION & COMPLICATED SKULL FX, COMA <	1	9,387	2	35,457	321	4,172,599
57	CONCUSSION, CLOSED SKULL FX NOS, UNCOMPLICATED INTRACRANIA	0	0	5	30,511	654	4,565,974
58	OTHER DISORDERS OF NERVOUS SYSTEM	4	6,558	30	891,445	3,163	29,123,848
70	ORBITAL PROCEDURES	1	4,248	0	0	123	1,589,506
73	EYE PROCEDURES EXCEPT ORBIT	0	0	1	282,128	100	1,699,503
80	ACUTE MAJOR EYE INFECTIONS	1	3,380	2	24,727	182	1,414,046

**Table 2: Proposed Trim Number of Cases and Total Charges by APR DRG for Calendar Year 2011**

APR DRG Code	APR DRG Description	Low Trim Outlier		High Trim Outlier		APR DRG Total	
		Number of Cases	Charges	Number of Cases	Charges	Number of Cases	Charges
82	EYE DISORDERS EXCEPT MAJOR INFECTIONS	4	12,319	5	103,130	582	4,581,715
89	MAJOR CRANIAL/FACIAL BONE PROCEDURES	7	65,042	1	58,178	326	14,188,035
90	MAJOR LARYNX & TRACHEA PROCEDURES	6	40,663	1	799	103	4,505,891
91	OTHER MAJOR HEAD & NECK PROCEDURES	0	0	1	8,434	180	5,133,090
92	FACIAL BONE PROCEDURES EXCEPT MAJOR CRANIAL/FACIAL BONE P	3	7,306	0	0	372	7,527,201
93	SINUS & MASTOID PROCEDURES	0	0	2	88,497	91	1,648,858
95	CLEFT LIP & PALATE REPAIR	0	0	2	31,532	134	1,180,908
97	TONSIL & ADENOID PROCEDURES	0	0	4	20,634	567	3,877,986
98	OTHER EAR, NOSE, MOUTH & THROAT PROCEDURES	4	19,016	5	44,319	635	8,637,415
110	EAR, NOSE, MOUTH, THROAT, CRANIAL/FACIAL MALIGNANCIES	5	13,289	1	76,061	218	4,148,057
111	VERTIGO & OTHER LABYRINTH DISORDERS	0	0	2	6,635	1,830	10,655,251
113	INFECTIONS OF UPPER RESPIRATORY TRACT	3	5,952	10	50,663	1,769	10,476,363
114	DENTAL & ORAL DISEASES & INJURIES	2	3,613	2	23,399	593	4,629,765
115	OTHER EAR, NOSE, MOUTH, THROAT & CRANIAL/FACIAL DIAGNOSES	5	8,828	3	254,703	1,174	9,738,666
120	MAJOR RESPIRATORY & CHEST PROCEDURES	2	7,261	7	281,865	1,343	44,581,621
121	OTHER RESPIRATORY & CHEST PROCEDURES	7	47,946	8	238,060	1,609	41,235,884
130	RESPIRATORY SYSTEM DIAGNOSIS W VENTILATOR SUPPORT 96+ HOU	3	34,674	20	1,369,592	1,557	85,142,556
131	CYSTIC FIBROSIS - PULMONARY DISEASE	8	36,143	3	78,126	320	6,690,157
132	BPD & OTH CHRONIC RESPIRATORY DISEASES ARISING IN PERINAT	2	5,754	0	0	140	1,999,831
133	PULMONARY EDEMA & RESPIRATORY FAILURE	54	107,747	69	1,280,107	5,234	83,827,324
134	PULMONARY EMBOLISM	4	8,697	20	292,932	3,775	45,828,673
135	MAJOR CHEST & RESPIRATORY TRAUMA	2	2,340	2	16,049	810	7,270,281
136	RESPIRATORY MALIGNANCY	42	84,253	23	321,736	1,990	29,707,768
137	MAJOR RESPIRATORY INFECTIONS & INFLAMMATIONS	36	81,594	47	990,663	4,167	65,214,747
138	BRONCHIOLITIS & RSV PNEUMONIA	3	9,408	14	87,705	1,762	11,458,354
139	OTHER PNEUMONIA	21	30,502	109	1,575,774	15,581	143,290,193
140	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	11	16,391	108	1,016,234	15,613	142,948,865
141	ASTHMA	2	4,320	27	169,148	5,232	33,512,937
142	INTERSTITIAL & ALVEOLAR LUNG DISEASES	3	9,477	8	177,326	790	9,888,314
143	OTHER RESPIRATORY DIAGNOSES EXCEPT SIGNS, SYMPTOMS & MINO	15	36,510	23	329,126	2,351	26,526,810
144	RESPIRATORY SIGNS, SYMPTOMS & MINOR DIAGNOSES	1	778	17	121,447	3,031	19,944,328
160	MAJOR CARDIOTHORACIC REPAIR OF HEART ANOMALY	0	0	1	51,651	61	3,751,772
161	CARDIAC DEFIBRILLATOR & HEART ASSIST IMPLANT	9	53,431	13	770,673	1,116	74,522,682

**Table 2: Proposed Trim Number of Cases and Total Charges by APR DRG for Calendar Year 2011**

APR DRG Code	APR DRG Description	Low Trim Outlier		High Trim Outlier		APR DRG Total	
		Number of Cases	Charges	Number of Cases	Charges	Number of Cases	Charges
162	CARDIAC VALVE PROCEDURES W CARDIAC CATHETERIZATION	0	0	3	201,422	366	26,793,921
163	CARDIAC VALVE PROCEDURES W/O CARDIAC CATHETERIZATION	1	18,721	10	626,146	1,089	64,811,364
165	CORONARY BYPASS W CARD CATH OR PERCUTANEOUS CARDIAC PR	1	6,579	9	367,822	1,247	64,538,047
166	CORONARY BYPASS W/O CARD CATH OR PERCUTANEOUS CARDIAC	0	0	7	437,376	1,096	49,240,624
167	OTHER CARDIOTHORACIC PROCEDURES	1	17,396	3	185,770	234	12,476,466
169	MAJOR THORACIC & ABDOMINAL VASCULAR PROCEDURES	4	25,997	10	476,342	602	27,143,967
170	PERMANENT CARDIAC PACEMAKER IMPLANT W AMI, HEART FAILURE	0	0	0	0	148	5,314,222
171	PERM CARDIAC PACEMAKER IMPLANT W/O AMI, HEART FAILURE OR	1	3,144	1	25,459	1,654	41,259,348
173	OTHER VASCULAR PROCEDURES	9	58,925	43	2,331,018	4,343	132,940,382
174	PERCUTANEOUS CARDIOVASCULAR PROCEDURES W AMI	2	8,157	12	457,140	3,752	86,818,797
175	PERCUTANEOUS CARDIOVASCULAR PROCEDURES W/O AMI	4	13,019	14	342,324	4,220	85,241,412
176	CARDIAC PACEMAKER & DEFIBRILLATOR DEVICE REPLACEMENT	1	6,041	0	0	144	4,400,628
177	CARDIAC PACEMAKER & DEFIBRILLATOR REVISION EXCEPT DEVICE	0	0	3	68,571	268	7,647,926
180	OTHER CIRCULATORY SYSTEM PROCEDURES	2	10,945	8	277,336	477	12,570,390
190	ACUTE MYOCARDIAL INFARCTION	11	26,873	46	689,695	4,921	51,781,873
191	CARDIAC CATHETERIZATION W CIRC DISORD EXC ISCHEMIC HEART	3	12,115	9	742,339	2,544	43,143,809
192	CARDIAC CATHETERIZATION FOR ISCHEMIC HEART DISEASE	0	0	6	81,111	2,650	23,027,536
193	ACUTE & SUBACUTE ENDOCARDITIS	1	1,769	1	12,361	143	2,558,566
194	HEART FAILURE	36	89,286	158	2,774,048	17,908	191,803,224
196	CARDIAC ARREST	2	5,358	2	59,405	210	3,076,912
197	PERIPHERAL & OTHER VASCULAR DISORDERS	9	14,194	48	597,126	4,926	49,825,004
198	ANGINA PECTORIS & CORONARY ATHEROSCLEROSIS	0	0	27	245,380	6,594	35,636,282
199	HYPERTENSION	1	480	8	75,054	2,542	15,303,781
200	CARDIAC STRUCTURAL & VALVULAR DISORDERS	1	1,847	3	31,854	331	3,282,842
201	CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS	6	6,253	79	753,368	10,344	73,368,939
203	CHEST PAIN	2	556	18	74,971	6,530	33,170,522
204	SYNCOPE & COLLAPSE	4	2,123	30	181,477	6,308	40,719,393
205	CARDIOMYOPATHY	2	3,769	0	0	127	1,070,201
206	MALFUNCTION,REACTION,COMPLICATION OF CARDIAC/VASC DEVICE	18	59,123	18	544,795	846	11,092,082
207	OTHER CIRCULATORY SYSTEM DIAGNOSES	3	7,194	20	146,343	1,912	16,596,950
220	MAJOR STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES	10	67,250	16	1,625,839	1,204	46,978,568
221	MAJOR SMALL & LARGE BOWEL PROCEDURES	3	29,886	51	5,223,850	6,238	194,538,476
222	OTHER STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES	2	15,057	2	43,548	353	6,216,355

**Table 2: Proposed Trim Number of Cases and Total Charges by APR DRG for Calendar Year 2011**

APR DRG Code	APR DRG Description	Low Trim Outlier		High Trim Outlier		APR DRG Total	
		Number of Cases	Charges	Number of Cases	Charges	Number of Cases	Charges
223	OTHER SMALL & LARGE BOWEL PROCEDURES	5	17,962	4	384,884	916	20,730,170
224	PERITONEAL ADHESIOLYSIS	0	0	4	82,729	670	14,527,641
225	APPENDECTOMY	1	1,562	8	103,463	4,556	42,691,064
226	ANAL PROCEDURES	0	0	4	142,171	666	6,210,139
227	HERNIA PROCEDURES EXCEPT INGUINAL, FEMORAL & UMBILICAL	1	12,066	10	344,336	1,657	31,259,743
228	INGUINAL, FEMORAL & UMBILICAL HERNIA PROCEDURES	0	0	1	15,711	728	8,512,726
229	OTHER DIGESTIVE SYSTEM & ABDOMINAL PROCEDURES	1	6,131	3	141,134	583	13,764,091
240	DIGESTIVE MALIGNANCY	23	43,979	20	409,964	1,268	18,430,364
241	PEPTIC ULCER & GASTRITIS	5	11,343	32	429,157	5,432	52,286,900
242	MAJOR ESOPHAGEAL DISORDERS	0	0	4	72,334	591	6,691,132
243	OTHER ESOPHAGEAL DISORDERS	0	0	19	135,927	2,519	18,532,648
244	DIVERTICULITIS & DIVERTICULOSIS	5	13,162	35	257,798	4,718	37,803,581
245	INFLAMMATORY BOWEL DISEASE	0	0	4	34,599	1,740	15,876,605
246	GASTROINTESTINAL VASCULAR INSUFFICIENCY	2	5,476	4	33,383	785	8,066,332
247	INTESTINAL OBSTRUCTION	3	7,590	45	468,470	4,506	35,892,614
248	MAJOR GASTROINTESTINAL & PERITONEAL INFECTIONS	5	16,759	26	634,076	2,975	34,279,266
249	NON-BACTERIAL GASTROENTERITIS, NAUSEA & VOMITING	3	5,150	39	275,070	5,529	34,570,834
251	ABDOMINAL PAIN	2	2,343	18	72,630	2,701	16,944,005
252	MALFUNCTION, REACTION & COMPLICATION OF GI DEVICE OR PROC	11	25,632	10	266,062	1,584	18,916,818
253	OTHER & UNSPECIFIED GASTROINTESTINAL HEMORRHAGE	13	32,590	44	678,099	3,876	38,395,383
254	OTHER DIGESTIVE SYSTEM DIAGNOSES	15	33,663	62	1,225,762	6,131	50,406,778
260	MAJOR PANCREAS, LIVER & SHUNT PROCEDURES	21	193,449	13	1,230,803	1,020	41,914,232
261	MAJOR BILIARY TRACT PROCEDURES	5	25,059	2	171,841	132	4,797,437
262	CHOLECYSTECTOMY EXCEPT LAPAROSCOPIC	1	7,094	3	212,994	716	15,196,581
263	LAPAROSCOPIC CHOLECYSTECTOMY	0	0	5	189,343	4,650	58,198,731
264	OTHER HEPATOBILIARY, PANCREAS & ABDOMINAL PROCEDURES	1	8,733	1	155,537	203	6,760,063
279	HEPATIC COMA & OTHER MAJOR ACUTE LIVER DISORDERS	26	86,720	28	558,063	1,726	26,950,019
280	ALCOHOLIC LIVER DISEASE	6	18,938	7	97,165	1,115	14,217,877
281	MALIGNANCY OF HEPATOBILIARY SYSTEM & PANCREAS	22	43,772	9	160,652	1,379	18,772,983
282	DISORDERS OF PANCREAS EXCEPT MALIGNANCY	16	46,016	57	797,033	5,260	49,242,316
283	OTHER DISORDERS OF THE LIVER	16	40,754	13	280,838	1,287	14,261,783
284	DISORDERS OF GALLBLADDER & BILIARY TRACT	5	8,254	14	157,456	2,427	23,913,702
301	HIP JOINT REPLACEMENT	1	2,611	5	319,337	7,664	183,429,933

**Table 2: Proposed Trim Number of Cases and Total Charges by APR DRG for Calendar Year 2011**

APR DRG Code	APR DRG Description	Low Trim Outlier		High Trim Outlier		APR DRG Total	
		Number of Cases	Charges	Number of Cases	Charges	Number of Cases	Charges
302	KNEE JOINT REPLACEMENT	1	1,782	12	313,873	12,308	270,791,966
303	DORSAL & LUMBAR FUSION PROC FOR CURVATURE OF BACK	7	105,786	3	232,230	430	31,945,238
304	DORSAL & LUMBAR FUSION PROC EXCEPT FOR CURVATURE OF BACK	8	50,436	18	465,688	4,457	196,176,939
305	AMPUTATION OF LOWER LIMB EXCEPT TOES	1	4,486	8	324,856	767	19,524,086
308	HIP & FEMUR PROCRES FOR TRAUMA EXCEPT JOINT REPLACEMEN	0	0	1	67,530	3,068	60,605,678
309	HIP & FEMUR PROCEDURES FOR NON-TRAUMA EXCEPT JOINT REPLAC	3	10,676	3	79,783	699	16,539,256
310	INTERVERTEBRAL DISC EXCISION & DECOMPRESSION	0	0	20	333,727	2,930	39,709,585
312	SKIN GRAFT, EXCEPT HAND, FOR MUSCULOSKELETAL & CONNECTIVE	4	26,522	1	11,686	146	4,680,210
313	KNEE & LOWER LEG PROCEDURES EXCEPT FOOT	4	16,676	24	543,293	3,329	60,073,398
314	FOOT & TOE PROCEDURES	3	10,637	11	120,977	1,508	25,531,798
315	SHOULDER, UPPER ARM & FOREARM PROCEDURES	4	13,666	3	65,312	2,518	46,630,839
316	HAND & WRIST PROCEDURES	1	908	4	16,747	473	5,799,384
317	TENDON, MUSCLE & OTHER SOFT TISSUE PROCEDURES	0	0	4	47,982	854	13,591,022
320	OTHER MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE PROC	6	21,530	7	223,846	705	13,646,094
321	CERVICAL SPINAL FUSION & OTHER BACK/NECK PROC EXC DISC EX	2	9,428	4	101,619	3,617	96,446,726
340	FRACTURE OF FEMUR	1	2,221	4	40,520	442	3,468,065
341	FRACTURE OF PELVIS OR DISLOCATION OF HIP	2	1,587	2	6,924	645	4,850,704
342	FRACTURES & DISLOCATIONS EXCEPT FEMUR, PELVIS & BACK	0	0	10	91,456	1,496	11,187,714
343	MUSCULOSKELETAL MALIGNANCY & PATHOL FRACT D/T MUSCSKEL	13	27,388	3	51,975	674	10,406,256
344	OSTEOMYELITIS, SEPTIC ARTHRITIS & OTHER MUSCULOSKELETAL I	13	33,032	11	182,898	1,023	13,901,961
346	CONNECTIVE TISSUE DISORDERS	10	37,532	18	377,682	1,264	17,538,038
347	OTHER BACK & NECK DISORDERS, FRACTURES & INJURIES	9	10,136	23	220,158	4,006	33,092,406
349	MALFUNCTION, REACTION, COMPLIC OF ORTHOPEDIC DEVICE OR PR	5	8,535	7	68,505	735	7,619,549
351	OTHER MUSCULOSKELETAL SYS & CONNECTIVE TISSUE DIAGNOSE	8	8,271	37	623,608	4,391	35,066,075
361	SKIN GRAFT FOR SKIN & SUBCUTANEOUS TISSUE DIAGNOSES	1	4,671	3	46,217	680	12,947,268
362	MASTECTOMY PROCEDURES	1	3,367	3	14,087	1,349	22,379,020
363	BREAST PROCEDURES EXCEPT MASTECTOMY	0	0	1	773	427	7,704,491
364	OTHER SKIN, SUBCUTANEOUS TISSUE & RELATED PROCEDURES	2	5,302	7	193,761	1,127	15,844,739
380	SKIN ULCERS	2	5,783	16	504,504	1,353	14,644,814
381	MAJOR SKIN DISORDERS	1	2,127	4	85,758	306	2,869,716
382	MALIGNANT BREAST DISORDERS	5	8,429	7	111,292	182	2,361,317
383	CELLULITIS & OTHER BACTERIAL SKIN INFECTIONS	10	21,431	55	465,221	11,326	84,093,882
384	CONTUSION, OPEN WOUND & OTH TRAUMA TO SKIN & SUBCUTANEO	0	0	9	30,718	1,112	7,239,290

**Table 2: Proposed Trim Number of Cases and Total Charges by APR DRG for Calendar Year 2011**

APR DRG Code	APR DRG Description	Low Trim Outlier		High Trim Outlier		APR DRG Total	
		Number of Cases	Charges	Number of Cases	Charges	Number of Cases	Charges
385	OTHER SKIN, SUBCUTANEOUS TISSUE & BREAST DISORDERS	2	3,097	11	222,070	977	7,085,024
401	PITUITARY & ADRENAL PROCEDURES	1	3,766	1	8,844	315	8,789,472
403	PROCEDURES FOR OBESITY	0	0	0	0	1,844	32,824,913
404	THYROID, PARATHYROID & THYROGLOSSAL PROCEDURES	2	5,894	0	0	1,231	13,247,567
405	OTHER PROCEDURES FOR ENDOCRINE, NUTRITIONAL & METABOLIC D	0	0	3	59,910	154	4,189,517
420	DIABETES	2	2,397	47	1,018,901	6,115	47,641,468
421	MALNUTRITION, FAILURE TO THRIVE & OTHER NUTRITIONAL DISOR	14	31,134	15	659,843	1,119	13,554,890
422	HYPOVOLEMIA & RELATED ELECTROLYTE DISORDERS	2	2,039	20	227,306	2,642	18,326,022
423	INBORN ERRORS OF METABOLISM	3	7,415	5	45,039	257	3,421,616
424	OTHER ENDOCRINE DISORDERS	5	14,168	17	169,178	1,524	15,213,414
425	ELECTROLYTE DISORDERS EXCEPT HYPOVOLEMIA RELATED	5	9,560	40	513,036	3,975	34,033,556
440	KIDNEY TRANSPLANT	0	0	0	0	0	0
441	MAJOR BLADDER PROCEDURES	1	11,117	5	68,402	279	10,767,617
442	KIDNEY & URINARY TRACT PROCEDURES FOR MALIGNANCY	3	8,527	0	0	812	17,127,105
443	KIDNEY & URINARY TRACT PROCEDURES FOR NONMALIGNANCY	9	39,300	7	829,347	1,161	24,334,075
444	RENAL DIALYSIS ACCESS DEVICE PROCEDURE ONLY	0	0	5	286,234	450	10,501,076
445	OTHER BLADDER PROCEDURES	1	2,958	2	47,229	196	3,357,801
446	URETHRAL & TRANSURETHRAL PROCEDURES	0	0	11	149,603	1,235	12,923,728
447	OTHER KIDNEY, URINARY TRACT & RELATED PROCEDURES	2	7,114	10	380,745	672	17,296,321
460	RENAL FAILURE	47	116,006	143	3,728,422	10,293	114,711,602
461	KIDNEY & URINARY TRACT MALIGNANCY	9	17,724	6	152,946	259	3,515,344
462	NEPHRITIS & NEPHROSIS	1	2,595	1	5,681	201	2,477,533
463	KIDNEY & URINARY TRACT INFECTIONS	3	4,417	76	966,558	9,965	77,731,948
465	URINARY STONES & ACQUIRED UPPER URINARY TRACT OBSTRUCTION	0	0	3	8,512	1,531	8,920,264
466	MALFUNCTION, REACTION, COMPLIC OF GENITOURINARY DEVICE OR	37	107,897	50	2,706,418	2,744	42,132,889
468	OTHER KIDNEY & URINARY TRACT DIAGNOSES, SIGNS & SYMPTOMS	4	9,098	32	456,376	2,794	22,447,586
480	MAJOR MALE PELVIC PROCEDURES	0	0	1	6,170	1,667	19,531,575
481	PENIS PROCEDURES	1	2,848	0	0	246	3,846,693
482	TRANSURETHRAL PROSTATECTOMY	0	0	2	15,903	678	5,793,277
483	TESTES & SCROTAL PROCEDURES	0	0	1	24,795	100	1,345,818
484	OTHER MALE REPRODUCTIVE SYSTEM & RELATED PROCEDURES	1	3,488	0	0	153	2,299,725
500	MALIGNANCY, MALE REPRODUCTIVE SYSTEM	3	5,417	1	25,938	102	1,220,542
501	MALE REPRODUCTIVE SYSTEM DIAGNOSES EXCEPT MALIGNANCY	0	0	3	19,262	763	6,123,912



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APR DRG Code	APR DRG Description	Low Trim Outlier		High Trim Outlier		APR DRG Total	
		Number of Cases	Charges	Number of Cases	Charges	Number of Cases	Charges
510	PELVIC EVISCERATION, RADICAL HYSTERECTOMY & OTHER RADICAL	0	0	0	0	279	5,286,607
511	UTERINE & ADNEXA PROCEDURES FOR OVARIAN & ADNEXAL MALIGNA	0	0	0	0	251	7,068,616
512	UTERINE & ADNEXA PROC FOR NON-OVARIAN & NON-ADNEXAL	0	0	2	72,093	564	9,753,130
513	UTERINE & ADNEXA PROCEDURES FOR NON-MALIGNANCY EXCEPT LEI	2	1,407	3	32,077	4,093	44,050,951
514	FEMALE REPRODUCTIVE SYSTEM RECONSTRUCTIVE PROCEDURES	0	0	0	0	815	7,848,972
517	DILATION & CURETTAGE FOR NON-OBSTETRIC DIAGNOSES	0	0	1	10,593	112	1,053,089
518	OTHER FEMALE REPRODUCTIVE SYSTEM & RELATED PROCEDURES	1	3,981	1	2,267	340	4,158,198
519	UTERINE & ADNEXA PROCEDURES FOR LEIOMYOMA	0	0	3	64,592	3,271	33,845,356
530	FEMALE REPRODUCTIVE SYSTEM MALIGNANCY	9	22,366	6	333,743	324	3,931,736
531	FEMALE REPRODUCTIVE SYSTEM INFECTIONS	1	1,406	5	63,709	603	4,752,445
532	MENSTRUAL & OTHER FEMALE REPRODUCTIVE SYSTEM DISORDERS	1	34	5	9,542	863	5,417,085
540	CESAREAN DELIVERY	0	0	90	1,864,644	23,267	212,362,306
541	VAGINAL DELIVERY W STERILIZATION &/OR D&C	0	0	0	0	677	6,401,006
542	VAGINAL DELIVERY W COMPLICATING PROCEDURES EXC STERILIZAT	0	0	1	10,207	148	1,501,235
544	D&C, ASPIRATION CURETTAGE OR HYSTEROTOMY FOR OBSTETRIC DI	1	5,598	1	5,255	394	2,866,187
545	ECTOPIC PREGNANCY PROCEDURE	0	0	0	0	338	3,068,517
546	OTHER O.R. PROC FOR OBSTETRIC DIAGNOSES EXCEPT DELIVERY D	1	2,817	2	50,936	237	2,403,580
560	VAGINAL DELIVERY	2	2,167	72	961,577	43,169	280,266,577
561	POSTPARTUM & POST ABORTION DIAGNOSES W/O PROCEDURE	4	4,682	9	166,624	1,225	7,338,834
563	THREATENED ABORTION	21	31,405	35	530,953	1,001	7,737,671
564	ABORTION W/O D&C, ASPIRATION CURETTAGE OR HYSTEROTOMY	0	0	3	24,549	366	1,995,450
565	FALSE LABOR	0	0	0	0	90	272,657
566	OTHER ANTEPARTUM DIAGNOSES	49	51,496	82	1,036,619	3,947	23,875,140
580	NEONATE, TRANSFERRED <5 DAYS OLD, NOT BORN HERE	0	0	0	0	16	80,013
581	NEONATE, TRANSFERRED < 5 DAYS OLD, BORN HERE	2	1,706	4	5,435	566	1,844,550
583	NEONATE W ECMO	0	0	3	427,210	20	5,659,913
588	NEONATE BWT <1500G W MAJOR PROCEDURE	1	17,943	7	1,048,517	61	17,910,556
589	NEONATE BWT <500G OR GA <24 WEEKS	53	122,349	21	2,412,932	213	7,853,713
591	NEONATE BIRTHWT 500-749G W/O MAJOR PROCEDURE	11	138,868	11	637,609	102	17,410,456
593	NEONATE BIRTHWT 750-999G W/O MAJOR PROCEDURE	17	111,365	15	960,692	216	28,401,965
602	NEONATE BWT 1000-1249G W RESP DIST SYND/OTH MAJ RESP OR M	9	36,260	7	385,534	210	20,555,480
603	NEONATE BIRTHWT 1000-1249G W OR W/O OTHER SIGNIFICANT CON	5	9,423	0	0	42	2,079,245
607	NEONATE BWT 1250-1499G W RESP DIST SYND/OTH MAJ RESP OR M	4	4,481	4	334,430	231	15,642,635

**Table 2: Proposed Trim Number of Cases and Total Charges by APR DRG for Calendar Year 2011**

APR DRG Code	APR DRG Description	Low Trim Outlier		High Trim Outlier		APR DRG Total	
		Number of Cases	Charges	Number of Cases	Charges	Number of Cases	Charges
608	NEONATE BWT 1250-1499G W OR W/O OTHER SIGNIFICANT CONDITI	3	8,882	0	0	74	3,031,546
609	NEONATE BWT 1500-2499G W MAJOR PROCEDURE	1	23,019	3	659,165	35	4,970,959
611	NEONATE BIRTHWT 1500-1999G W MAJOR ANOMALY	8	24,961	1	77,973	150	6,289,440
612	NEONATE BWT 1500-1999G W RESP DIST SYND/OTH MAJ RESP COND	4	9,029	1	2,527	347	13,233,948
613	NEONATE BIRTHWT 1500-1999G W CONGENITAL/PERINATAL INFECTI	0	0	0	0	86	2,708,669
614	NEONATE BWT 1500-1999G W OR W/O OTHER SIGNIFICANT CONDITI	29	52,356	5	65,521	552	9,975,648
621	NEONATE BWT 2000-2499G W MAJOR ANOMALY	11	41,184	3	33,037	192	4,454,949
622	NEONATE BWT 2000-2499G W RESP DIST SYND/OTH MAJ RESP COND	6	18,492	3	44,832	359	8,600,476
623	NEONATE BWT 2000-2499G W CONGENITAL/PERINATAL INFECTION	2	2,668	0	0	159	2,947,936
625	NEONATE BWT 2000-2499G W OTHER SIGNIFICANT CONDITION	36	67,183	8	95,260	488	6,507,186
626	NEONATE BWT 2000-2499G, NOR NEWBORN OR NEONATE W OTHER	8	8,660	21	120,549	2,419	8,329,216
630	NEONATE BIRTHWT >2499G W MAJOR CARDIOVASCULAR PROCEDURE	0	0	2	794,817	31	5,038,558
631	NEONATE BIRTHWT >2499G W OTHER MAJOR PROCEDURE	2	20,029	3	179,396	57	5,088,975
633	NEONATE BIRTHWT >2499G W MAJOR ANOMALY	35	63,982	27	392,444	1,243	13,192,115
634	NEONATE, BIRTHWT >2499G W RESP DIST SYND/OTH MAJ RESP CON	41	60,853	11	179,005	973	13,337,737
636	NEONATE BIRTHWT >2499G W CONGENITAL/PERINATAL INFECTION	26	42,437	6	67,915	826	8,621,529
639	NEONATE BIRTHWT >2499G W OTHER SIGNIFICANT CONDITION	42	53,278	138	1,107,094	3,286	16,972,092
640	NEONATE BIRTHWT >2499G, NORM NEWBORN OR NEONATE W OTHER	5	2,265	89	415,623	56,472	113,615,547
650	SPLENECTOMY	2	19,610	2	814,466	89	3,530,554
651	OTHER PROCEDURES OF BLOOD & BLOOD-FORMING ORGANS	3	26,131	2	390,508	126	3,143,455
660	MAJOR HEMATOLOGIC/IMMUNOLOGIC DIAG EXC SICKLE CELL CRISIS	19	77,602	39	1,420,910	1,854	28,757,734
661	COAGULATION & PLATELET DISORDERS	25	79,181	17	1,957,784	691	12,590,870
662	SICKLE CELL ANEMIA CRISIS	6	16,226	16	201,743	2,614	26,304,464
663	OTHER ANEMIA & DISORDERS OF BLOOD & BLOOD-FORMING ORGANS	1	2,454	48	430,353	4,947	39,018,989
680	MAJOR O.R. PROCEDURES FOR LYMPHATIC/HEMATOPOIETIC/OTHER N	0	0	0	0	385	12,980,494
681	OTHER O.R. PROCEDURES FOR LYMPHATIC/HEMATOPOIETIC/OTHER N	0	0	2	47,394	437	9,192,009
690	ACUTE LEUKEMIA	23	128,819	10	448,124	220	6,368,543
691	LYMPHOMA, MYELOMA & NON-ACUTE LEUKEMIA	31	91,186	17	409,501	784	16,070,095
692	RADIOTHERAPY	2	5,841	1	116	45	663,021
693	CHEMOTHERAPY	41	153,141	14	209,072	2,383	34,303,416
694	LYMPHATIC & OTHER MALIGNANCIES & NEOPLASMS OF UNCERTAIN B	7	12,788	14	325,999	642	8,767,600
710	INFECTIOUS & PARASITIC DISEASES INCLUDING HIV W O.R. PROC	20	142,573	73	4,103,873	2,625	115,346,621
711	POST-OP, POST-TRAUMA, OTHER DEVICE INFECTIONS W O.R. PROC	9	51,260	17	1,147,049	1,254	32,867,199

**Table 2: Proposed Trim Number of Cases and Total Charges by APR DRG for Calendar Year 2011**

APR DRG Code	APR DRG Description	Low Trim Outlier		High Trim Outlier		APR DRG Total	
		Number of Cases	Charges	Number of Cases	Charges	Number of Cases	Charges
720	SEPTICEMIA & DISSEMINATED INFECTIONS	294	888,660	360	9,946,678	20,239	367,588,502
721	POST-OPERATIVE, POST-TRAUMATIC, OTHER DEVICE INFECTIONS	27	69,313	43	1,279,420	4,029	61,196,774
722	FEVER	2	3,910	6	94,323	1,125	8,605,654
723	VIRAL ILLNESS	8	38,999	9	329,222	845	7,278,167
724	OTHER INFECTIOUS & PARASITIC DISEASES	9	44,377	14	524,081	1,011	14,497,490
740	MENTAL ILLNESS DIAGNOSIS W O.R. PROCEDURE	0	0	2	76,788	56	1,092,274
750	SCHIZOPHRENIA	43	67,953	142	3,220,312	5,822	60,073,973
751	MAJOR DEPRESSIVE DISORDERS & OTHER/UNSPECIFIED PSYCHOSES	63	150,004	233	5,844,046	9,149	84,618,782
752	DISORDERS OF PERSONALITY & IMPULSE CONTROL	0	0	2	24,225	52	392,839
753	BIPOLAR DISORDERS	60	111,094	148	3,532,040	10,946	94,795,449
754	DEPRESSION EXCEPT MAJOR DEPRESSIVE DISORDER	18	27,132	11	276,108	2,961	18,974,366
755	ADJUSTMENT DISORDERS & NEUROSES EXCT DEPRESSIVE DIAGNOS	3	6,952	11	103,800	864	5,366,691
756	ACUTE ANXIETY & DELIRIUM STATES	2	2,504	6	123,239	869	6,636,054
757	ORGANIC MENTAL HEALTH DISTURBANCES	3	4,140	13	437,027	863	8,721,212
758	CHILDHOOD BEHAVIORAL DISORDERS	2	4,278	5	121,373	375	4,296,315
759	EATING DISORDERS	8	30,962	18	608,269	95	3,232,615
760	OTHER MENTAL HEALTH DISORDERS	1	2,420	3	50,762	179	1,627,926
770	DRUG & ALCOHOL ABUSE OR DEPENDENCE, LEFT AGAINST MEDICAL	12	10,077	8	44,085	946	2,921,899
772	ALCOHOL & DRUG DEPENDENCE W REHAB OR REHAB/DETOX THPY	0	0	0	0	20	76,286
773	OPIOID ABUSE & DEPENDENCE	4	7,673	24	149,247	2,927	9,745,806
774	COCAINE ABUSE & DEPENDENCE	0	0	3	9,091	386	1,985,080
775	ALCOHOL ABUSE & DEPENDENCE	8	17,476	58	687,055	4,065	26,543,852
776	OTHER DRUG ABUSE & DEPENDENCE	2	2,865	7	45,603	501	4,200,350
779	INVOLUNTARY-MENTAL ILLNESS DIAGNOSIS W O.R. PROCEDURE	1	10,066	2	84,114	5	198,870
780	INVOLUNTARY-SCHIZOPHRENIA	32	98,106	93	2,741,463	1,359	20,467,422
781	INVOLUNTARY-MAJOR DEPRESSIVE DISORDERS & OTHER/UNSPECIFIE	15	22,795	17	613,922	831	7,942,599
782	INVOLUNTARY-DISORDERS OF PERSONALITY & IMPULSE CONTROL	0	0	0	0	6	71,661
783	INVOLUNTARY-BIPOLAR DISORDERS	24	43,382	38	957,397	1,179	13,030,443
784	INVOLUNTARY-DEPRESSION EXCEPT MAJOR DEPRESSIVE DISORDER	2	2,380	1	9,453	196	1,161,128
785	INVOLUNTARY-ADJUST DISORDERS & NEUROSES EXCEPT DEPRES	2	4,511	3	11,310	78	630,405
786	INVOLUNTARY-ACUTE ANXIETY & DELIRIUM STATES	0	0	0	0	15	125,812
787	INVOLUNTARY-ORGANIC MENTAL HEALTH DISTURBANCES	0	0	1	100,700	26	431,607
788	INVOLUNTARY-CHILDHOOD BEHAVIORAL DISORDERS	5	10,576	0	0	57	654,929

**Table 2: Proposed Trim Number of Cases and Total Charges by APR DRG for Calendar Year 2011**

APR DRG Code	APR DRG Description	Low Trim Outlier		High Trim Outlier		APR DRG Total	
		Number of Cases	Charges	Number of Cases	Charges	Number of Cases	Charges
789	INVOLUNTARY-EATING DISORDERS	0	0	0	0	0	0
790	INVOLUNTARY-OTHER MENTAL HEALTH DISORDERS	2	7,061	0	0	16	175,243
791	O.R. PROCEDURE FOR OTHER COMPLICATIONS OF TREATMENT	10	49,695	13	412,892	1,212	28,257,299
811	ALLERGIC REACTIONS	0	0	3	9,124	765	4,198,387
812	POISONING OF MEDICINAL AGENTS	8	18,404	41	476,412	3,793	31,651,589
813	OTHER COMPLICATIONS OF TREATMENT	11	29,211	17	323,167	1,791	17,641,730
815	OTHER INJURY, POISONING & TOXIC EFFECT DIAGNOSES	2	4,007	5	64,494	405	3,764,396
816	TOXIC EFFECTS OF NON-MEDICINAL SUBSTANCES	3	6,710	27	504,017	1,560	15,639,437
841	EXTENSIVE 3RD DEGREE BURNS W SKIN GRAFT	0	0	0	0	0	0
842	FULL THICKNESS BURNS W SKIN GRAFT	0	0	0	0	7	334,409
843	EXTENSIVE 3RD DEGREE OR FULL THICKNESS BURNS W/O SKIN GRA	0	0	0	0	17	209,270
844	PARTIAL THICKNESS BURNS W OR W/O SKIN GRAFT	2	5,360	0	0	161	1,352,468
850	PROC W DIAG OF REHAB, AFTERCARE OR OTH CONTACT W HEA	4	22,225	4	74,665	430	10,588,905
860	REHABILITATION	16	32,651	3	27,363	997	17,251,239
861	SIGNS, SYMPTOMS & OTHER FACTORS INFLUENCING HEALTH STATUS	11	19,096	37	496,391	4,029	31,054,835
862	OTHER AFTERCARE & CONVALESCENCE	1	1,462	2	53,799	64	613,298
863	NEONATAL AFTERCARE	2	4,652	0	0	56	1,707,565
890	HIV W MULTIPLE MAJOR HIV RELATED CONDITIONS	51	251,227	24	1,172,855	1,054	33,500,546
892	HIV W MAJOR HIV RELATED CONDITION	6	12,823	7	216,365	1,063	15,262,843
893	HIV W MULTIPLE SIGNIFICANT HIV RELATED CONDITIONS	0	0	4	32,610	315	4,033,078
894	HIV W ONE SIGNIF HIV COND OR W/O SIGNIF RELATED COND	2	2,299	4	112,975	554	5,406,906
910	CRANIOTOMY FOR MULTIPLE SIGNIFICANT TRAUMA	0	0	0	0	15	724,404
911	EXTENSIVE ABDOMINAL/THORACIC PROCEDURES FOR MULT SIGNIFIC	2	22,925	4	127,457	156	7,113,515
912	MUSCULOSKELETAL & OTHER PROCEDURES FOR MULTIPLE SIGNIFICA	3	21,571	2	128,265	339	13,550,870
930	MULTIPLE SIGNIFICANT TRAUMA W/O O.R. PROCEDURE	2	10,004	0	0	323	5,296,445
950	EXTENSIVE PROCEDURE UNRELATED TO PRINCIPAL DIAGNOSIS	9	49,495	10	426,193	1,027	42,378,868
951	MODERATELY EXTENSIVE PROCEDURE UNRELATED TO PRINCIPAL DIA	5	21,099	10	1,421,737	1,576	40,057,927
952	NONEXTENSIVE PROCEDURE UNRELATED TO PRINCIPAL DIAGNOSIS	4	19,067	10	836,279	1,020	20,992,340
955	PRINCIPAL DIAGNOSIS INVALID AS DISCHARGE DIAGNOSIS	0	0	0	0	4	30,863
956	UNGROUPABLE	0	0	0	0	172	1,080,850
980	REHAB DRG 850 (NATURE = REHAB) & LICENSED REHAB HOSPITAL	0	0	0	0	23	843,920
982	REHAB - SPINAL CORD INJURY	7	21,125	3	28,836	234	5,882,956
983	REHAB - STROKE	59	141,824	10	178,322	1,839	39,969,050

**Table 2: Proposed Trim Number of Cases and Total Charges by APR DRG for Calendar Year 2011**

APR DRG Code	APR DRG Description	Low Trim Outlier		High Trim Outlier		APR DRG Total	
		Number of Cases	Charges	Number of Cases	Charges	Number of Cases	Charges
984	REHAB - AMPUTATION	0	0	0	0	154	3,147,932
985	REHAB - ORTHOPEDICS/ARTHRITIS	30	57,710	5	61,231	2,782	43,590,073
986	REHAB - NEUROLOGICAL	7	20,224	2	55,698	540	11,620,464
987	REHAB - PAIN SYNDROMES	0	0	1	41,969	276	4,611,469
988	REHAB - BRAIN INJURY & RANCHO LEVELS (7,8)	13	33,534	14	388,094	816	16,716,303
989	REHAB - LICENSED BRAIN INJURY (LEVELS 1 TO 6)	1	2,750	1	5,338	116	2,826,515
STATEWIDE TOTAL		2,695	8,385,728	5,667	159,150,864	702,547	8,810,137,035

## Appendix A

**Table A1: Outlier Methodology Calculations**

Hospital-Specific Outliers and Trim	Details
1. <b>Remove all categorical exclusions from Case mix data.</b>	This includes research, organ transplants, and pediatric burn cases, for example.
2. <b>Create statewide charge-based weight:</b> divide each APR DRG SO) average charge by the statewide average charge.	Uses the geometric mean for charges instead of the arithmetic mean to limit the effect of extreme charges.
3. <b>Adjust the statewide APR DRG SOI weights:</b> use 3M's National Monotonic Relative Weights data to adjust relative weights so they monotonically increase by SOI; the weights are then normalized to the statewide Case Mix Index (CMI) to 1.00.	This step ensures that the charges increase along with severity. The national file is also used to adjust weights for small case counts (<30) which can be statistically unstable.
4. <b>Set each hospital's APR DRG SOI high trim threshold:</b> adjust each hospital's CPC by the hospital base CMI, multiply by the statewide APR DRG SOI weight, then multiply by 3.5155.	Trim points are set specifically for each hospital. In 2006, it was determined that the outlier threshold was 3.5155 times the approved charges. The multiplier of 3.5155 was adopted in the final July 2006 outlier methodology.
5. <b>Adjust each APR DRG SOI high trim cell for the dead-zone:</b> a minimum \$10,000 loss and a maximum of \$100,000.	Each trim point must be at least \$10,000 above the approved CPC, but not more than \$100,000 above.
6. <b>Charges above the high outlier threshold are trimmed:</b> charges in excess of the threshold (based on unit rates) are excluded for CPC/CPE target setting (step 7).	The outlier cases are still included in the calculations with their charges reduced to the trim point.
7. <b>Hospital CPC/CPE(s) are revised:</b> to reflect high outlier trimmed; charges and are revenue neutral at the base.	Trim points are set prospectively based on the prior year and are rebased at the beginning of each rate year. At this point they are revenue neutral, and will remain this way if the number and mix of cases remain constant.

**Final Recommendation:**  
**HEALTH SERVICES COST REVIEW COMMISSION**  
**Nurse Support Program II**  
**FY 2014 COMPETITIVE INSTITUTIONAL GRANTS**

**June 5, 2013**

This document represents a final staff recommendation to be presented to the Commission on June 5, 2013.

## **INTRODUCTION**

This paper presents the funding recommendations of the NSP II Grant Review Panel for the FY 2014 Nurse Support Program II (NSP II) Competitive Institutional Grants.

## **BACKGROUND**

At the May 4, 2005 HSCRC public meeting, the Commission unanimously approved funding of 0.1% of regulated patient revenue annually over the next ten years for use in expanding the pool of bedside nurses in the State by increasing the number of nurse graduates. The primary goal of NSP II is to increase the number of bedside nurses in Maryland hospitals by expanding the capacity of Maryland nursing schools and increasing the number of nursing faculty. In 2006, the Governor introduced legislation to create a non-lapsing fund, the Nurse Support Assistance Fund, so that funds in which a portion of the Competitive Institutional Grants and Statewide Initiatives be used to attract and retain minorities to nursing and nurse faculty careers.

Following the approval of NSP II, the HSCRC assembled an advisory panel of academicians, business leaders, and nurse executives. The advisory panel held a series of meetings with the Maryland Association of Nurse Executives and the Deans and Directors of the State's Schools of Nursing. In response to the issues expressed by these two groups, the advisory panel crafted two distinct but complementary programs to address the multi-faceted issues surrounding the nursing faculty shortage: 1) Competitive Institutional Grants, and 2) Statewide Initiatives. The HSCRC contracted with the Maryland Higher Education Commission (MHEC) to administer the NSP II grants because of its expertise in postsecondary education including the administration of grants and scholarships.

On an ongoing basis, MHEC is responsible for NSP II grant pre-to-post award processes, including RFA development, and issuance, review panel management, awarding, disbursement of funds and ongoing compliance monitoring. In addition, the NSP II program manager works closely with the faculty project directors to facilitate collaboration and innovation through communication, joint meetings, on-site visits, and other advising services to NSP II grant awardees. In general, MHEC has implemented a coordinated, comprehensive approach balanced by achievement with accountability.

The Competitive Institutional Grants are designed to increase the capacity of Maryland Schools of Nursing through shared resources, innovative educational designs, and streamlining the process to produce additional nurse faculty. The Office of Outreach and Grants Management at the Maryland Higher Education Commission in consultation with the HSCRC staff, and the Deans, Directors and Department heads of nursing programs developed the FY 2014 Request for Applications. In developing the initiatives, national goals recommended by the



Institute of Medicine's (2010) report, *The Future of Nursing: Leading Change, Advancing Health* were taken into consideration. These goals include increasing the percentage of BSN's and doubling the number of doctoral prepared nurses. This evidence-based report, as well as steering committees composed of hospital nursing leaders and nursing education leaders have reinforced the direction of both NSP I and NSP II, with new strategies in the development of a joint initiative, the Nurse Support Program website [www.nursesupport.org](http://www.nursesupport.org).

The 2014 Competitive Grants supports:

1. Initiatives to implement the IOM's *Future of Nursing* report (2010) action oriented blueprint in the following recommendations.
2. Initiatives to implement innovative approaches to improved educational systems and increase clinical faculty.
3. Initiatives to facilitate inter-disciplinary education- promoting successful transitions by veterans and other displaced workers into nursing career paths.
4. Initiatives to maintain nursing student retention and success.
5. Initiatives to increase faculty development in workforce planning.

The Competitive Institutional Grant selection processes require a Grant Review Panel to review, deliberate, and recommend programs for final approval by the HSCRC. The applications are evaluated based on the criteria set forth in the Request for Applications (RFA), the comparative expected outcomes of each initiative, the geographic distribution of funded projects across the State, and the priority attached to attracting and retaining minorities in nursing and nursing faculty careers.

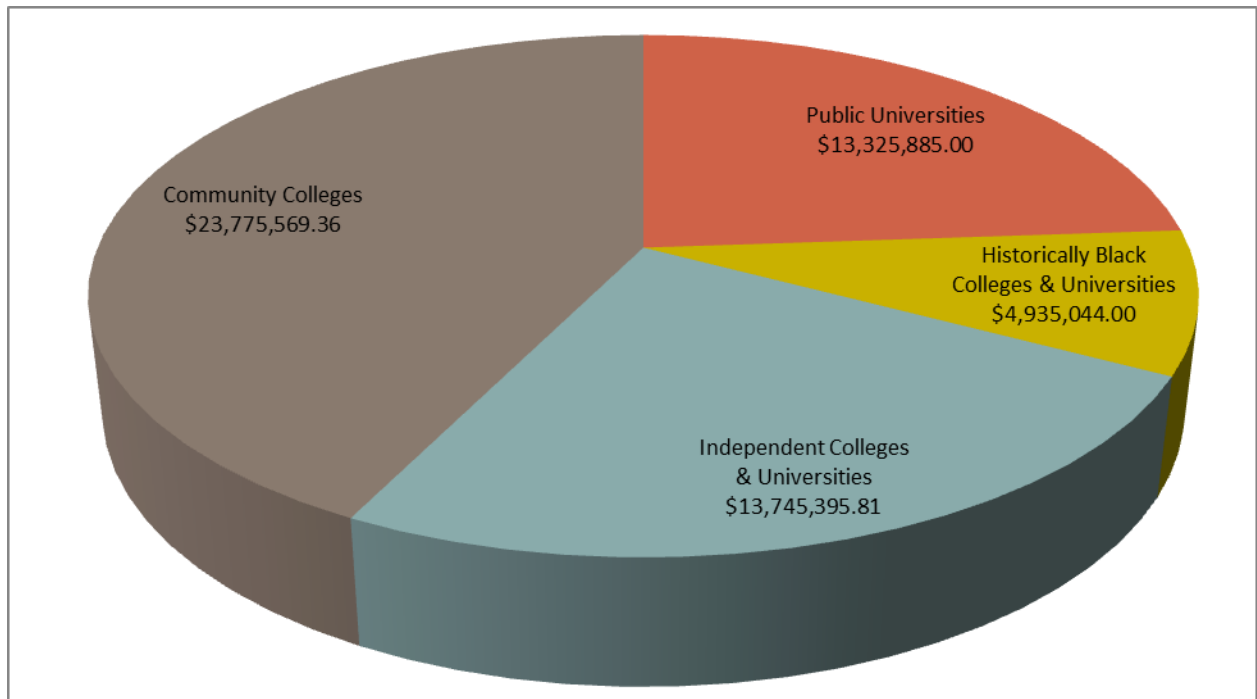
### **NSP II Competitive Institutional Grants from FY 2007 – FY 2013**

Between FY 2007 and FY 2013, 113 NSP II applications were received and 79 were approved for funding. Over that period of time, NSP II has provided \$55,781,894 in funding to all 26 Maryland Schools of Nursing. **Exhibit 1** illustrates the distribution of funds by higher education institution type. The following types of programs have been supported by this grant program:

- Accelerated and innovative weekend, evening and 15 month degree options, especially appealing to working adult learners/ career changers;
- Developing models for dual enrollment for ADN and BSN programs;
- Increasing nursing faculty educational options through accelerated MSN and doctoral programs, including distance learning programs;
- New technology for simulation and instruction across the state offering clinical simulation networking in an open web-based format for sharing expertise and scenarios for increased educational capacity;
- Expanding online education instructional design technology with experienced faculty, thereby increasing access to undergraduate and

- graduate nursing students and decreasing commuting issues for working adult learners and geographically disparate communities;
- Supporting new undergraduate and graduate nursing programs at Maryland’s Historically Black Institutions (HBI), with the goal of increasing diversity of the nursing workforce; and
  - Supporting regional approaches like The Eastern Shore Faculty Academy and Mentorship Initiative (ES-FAMI), a collaborative effort among the Departments of Nursing at public and private universities and community colleges, prepare experienced BS and MS-prepared registered nurses for new roles as part-time clinical nursing faculty

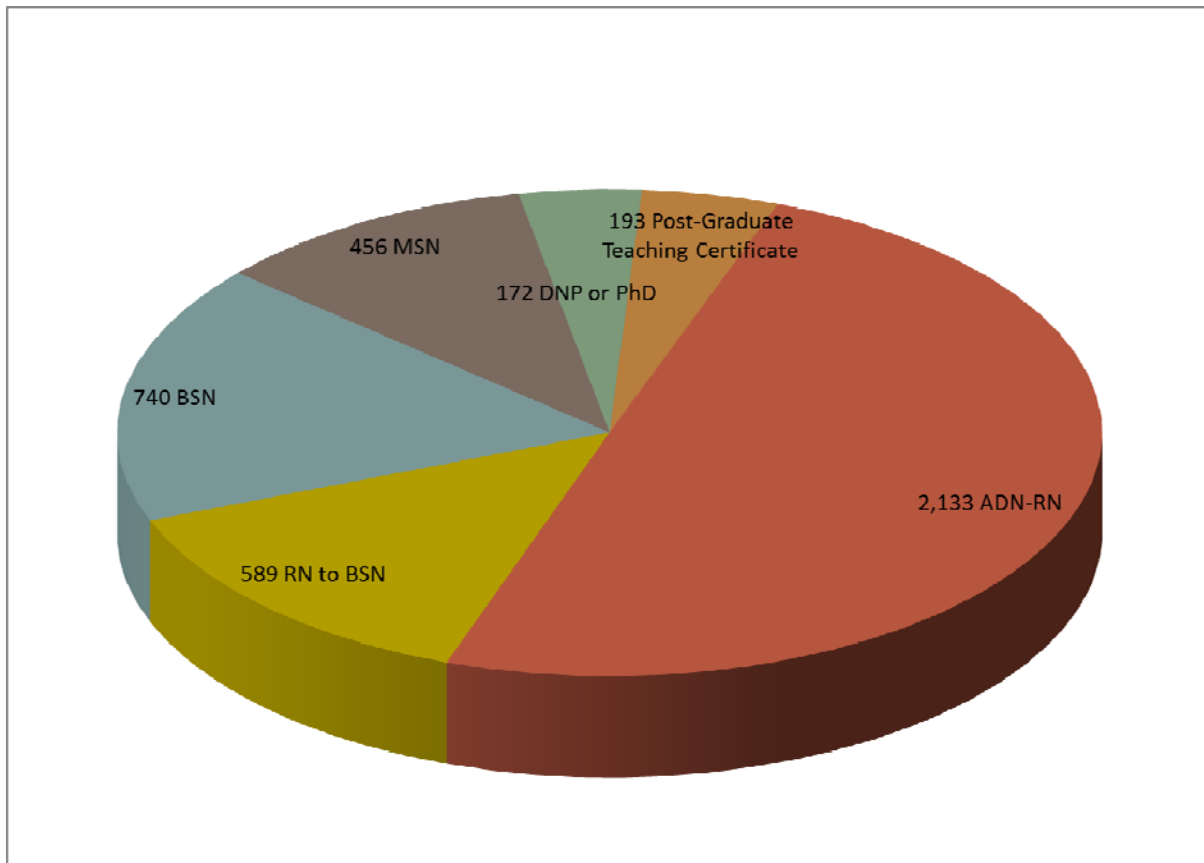
**Exhibit 1: NSP II Competitive Grant Funding Summary by Higher Education Segment**



Data from the Maryland Higher Education Commission (MHEC) and the Maryland Board of Nursing demonstrate success in increasing the number of nursing graduates in Maryland. In FY 2011, 3,429 nursing graduates completed programs designed for entry to practice with 2,519 passing NCLEX for licensure. This is an increase from the 2,615 new nursing graduates in FY 2006 with 2,039 passing NCLEX for licensure. Overall, the trend for five years has been a 19 percent increase in the number of new graduate nurses, and a 4.6 percentage point decrease in the hospital nurse vacancy rate. Nursing programs with current open grants reported to NSP II staff an average employment rate for new graduates of 85% by six months, with some areas, like northeastern Maryland reporting 100%.

Based on interim annual reports ending July 2012 and final reports ending March, 31, 2013, the Competitive Institutional Grant project outcomes demonstrate a dramatic contribution to the increase in the nursing workforce and advanced degrees for faculty preparation. **Exhibit 2** illustrates degree completion information attributable to the grant from 2007 to 2012.

**Exhibit 2: NSP II Competitive Grant Programs Degree Completions 2007 to 2012**



NSP II has received international recognition for excellence in nursing workforce development. For example, MHEC is currently hosting a member of the Education Ministry in Taiwan, Mr. Charles Chen, who is very interested in implementing an NSP II type program in his country. MHEC's Director of Academic Affairs, Dr. Sue Blanshan, NSP II Program Manager Ms. Peg Daw, University of Maryland School of Nursing Dean Janet Allan and faculty member Dr. Barbara Smith, presentation/whitepaper featuring the NSP II program titled, *Nurse Faculty Shortage in the US: A Role of the State/ Province in Addressing the Shortage* was accepted at the 23<sup>rd</sup> International Nursing Research Congress symposia of the Sigma Theta Tau International Honor Society of Nursing. Drs. Blanshan and Smith presented the work at the conference in Brisbane, Australia in 2012.

The Nurse Support Program II has been referenced and highlighted in nursing and health care journals in multiple publications at the national level. For

example, a recent Robert Wood Johnson Foundation (RWJF) study, *RN Work Project* cited research from NSP II FY 06 and FY 09 project directors. The article on national research was developed collaboratively by professionals from University of Maryland and MedStar Franklin Square Medical Center.

<http://www.rwjf.org/en/about-rwjf/newsroom/newsroom-content/2012/12/why-nurses-go-back-to-school.html>

NSP II project directors are also being recognized for nursing excellence and innovative work in leading change in Maryland.

- Dr. Rebecca Wiseman of University of Maryland School of Nursing and Ms. Barbara Nubile, Director of Nursing of Montgomery College, NSP II FY 2013 grant project, *Model for Dual Enrollment*, received matching funds from the RWJF State Implementation Grant (SIP) in March, 2013. The *Model for Dual Enrollment* is a possible strategy that could be implemented throughout Maryland via a variety of university-community college partnerships.  
<http://www.nursing.umaryland.edu/news/4774>
- NSP II FY 13 grant recipient for the a distance accessible *Doctor of Nursing Practice Program*, Dr. Lisa Seldomridge, was awarded the University System of Maryland's highest faculty honor, the *Regents' Faculty Award for Excellence* in April, 2013, "whose vision and leadership in nursing are transformative and ...her energy unmatched".  
<http://www.salisbury.edu/newsevents/fullstoryview.asp?ID=5309>

### **NSP II Competitive Institutional Grants for FY 2014**

For FY 2014, 15 proposals were received. The seven member Grant Review Panel comprised of nursing administrators, hospital and emeritus university educators, and MHEC and HSCRC staff, reviewed all of the applications and ranked application according to a scoring rubric. All applications were recommended for funding with certain revisions as recommended by the Panel (Appendix I). The applications were diverse and representative of broad geographic locations and educational strategies. The most highly recommended applicant presented an innovative program for veterans with past or present status of a "Navy Corpsman", "Army 91WM6" or "USAF4NO" skill identifier. These individuals will be recruited to participate in an accelerated registered nurse program with expected completion in 13 months, through smooth transitions, online delivery and ongoing support systems. Five were focused on streamlining Associate Degree to Bachelor's completion. Several focused on advancing inter-professional education with simulation, improving minority outcomes, and leadership development. Other applicants are starting a new DNP program at an HBI, an RN- MSN program in western Maryland and a post-graduate psychiatric nurse practitioner option. Eleven Maryland schools and fourteen partner institutions will be involved in the fifteen proposed one to two year grant funded projects.

**RECOMMENDATIONS:**

1. Commission Staff recommends the fifteen Competitive Institutional Grants recommended by the NSP II Grant Review Panel listed in Appendix I be considered by the Commission for FY 2014 in the funding amounts stated.

Appendix I

<b>NSP II FY 2014 Final Recommendations for Competitive Institutional Grants Program</b>						
<b>Proposal</b>	<b>Name</b>	<b>School of Nursing</b>	<b>Total Request</b>	<b>Years</b>	<b>Year 1</b>	<b>Year 2</b>
14-101	A Faculty Pipeline for RN to BSN and BSN to MSN	Bowie State University	\$212,723	2	\$105,586	\$107,137
14-102	CCBC Associates to Bachelors (ATB)	CCBC	\$298,957	2	\$145,868	\$153,089
14-103	Initiative to Promote Nursing Education as a Career Path	Coppin State University	\$290,320	2	\$151,875	\$138,445
14-104	Planning the Pathway to an MSN in Western Maryland	Frostburg State University	\$145,842	1	\$145,842	
14-105	3 + 1 Model: A new route to the BSN	Hagerstown Community	\$174,664	2	\$82,079	\$92,585
14-106	Interdisciplinary Simulation and Instructional Media to Enhance Student Success	Howard Community College	\$268,290	2	\$121,705	\$146,585
14-107	Accelerated Post-NP Psychiatric Mental Health Nurse Practitioner Education	Johns Hopkins University	\$299,709	2	\$174,063	\$125,646
14-108	Online Use of Interprofessional Simulation for Nursing and Faculty Development	Johns Hopkins University	\$284,687	2	\$158,407	\$126,280
14-109	Establishing a Faculty Development Consortium for Nursing Leadership	Johns Hopkins University	\$297,554	2	\$150,848	\$146,706
14-110	Military to ADN(M2ADN)	Montgomery College	\$226,522	2	\$115,359	\$111,163
14-111	Increasing Success, Capacity & Outcomes in Minority Nursing Students	Sojourner-Douglass College	\$237,351	2	\$126,435	\$110,916
14-112	Increasing Academic-Practice Partnerships in Maryland	Stevenson University	\$276,942	2	\$136,728	\$140,214
14-113	Preparing Clinical Faculty for Maryland Nursing Schools	University of Maryland	\$295,573	2	\$130,208	\$165,365
14-114	Increasing the Number of Baccalaureate Prepared Nurses in Maryland	University of Maryland	\$298,915	2	\$148,106	\$150,809
14-115	Interprofessional Education: A faculty development initiative	University of Maryland	\$299,928	2	\$174,122	\$125,806
<b>Total</b>	15 applicants		\$3,907,977		\$2,067,231	\$1,840,746

**Report Updating the Commission on Changes  
to the Quality Based Reimbursement (QBR)  
Program for FY 2015**

**May 29, 2013**

**Health Services Cost Review Commission  
4160 Patterson Avenue  
Baltimore, MD 21215**

**This is a report to be presented at the June 5, 2013 HSCRC public meeting.**

# Report Updating the Commission on Changes to the Quality Based Reimbursement (QBR) Program for FY 2015

This report is to update the Commission on the changes to the Quality Based Reimbursement Program (QBR) that will impact hospital rates in rate years FY 2014 and FY 2015.

## I. Background

The HSCRC approved in June 2008 the staff recommendation titled, "Final Staff Recommendations regarding the HSCRC's Quality-Based Reimbursement (QBR) Project - based on deliberations of the Initiation Work Group (IWG)." For the first year of the QBR Initiative, 19 process measures in four care domains including heart attack, heart failure, pneumonia and surgical care were used, and hospital payment rates for State fiscal year 2010 were adjusted based on performance in calendar year (CY) 2008 with a base year CY2007.

For year two of the QBR initiative which used base CY 2008, measurement CY 2009 for the rate year FY 2011 payment adjustments, the Commission approved the use of 17 measures consistent with the changes to the core CMS/Joint Commission measures. In addition, to mitigate the effects of topped off measures, better distinguish hospital performance, and shift some focus to the patient as the unit of measure, the Commission modified its methodology to include a blended Opportunity and Appropriateness score whereby hospital scores were based 75% on Opportunity, that is each time the measure was provided, and 25% on Appropriateness, that is each patient that received all the measures for which they were included in the denominator (in other words, a perfect care score). In its third year of implementation in FY2012, patient experience of care measures were added to the QBR initiative to strengthen incentives for patient centered care.

To apply rewards and penalties for both year one and year two of the QBR program, HSCRC used a cube root exchange function to translate scores into rankings and scaled 0.5% of revenue in the hospitals' update factors in a revenue neutral manner. In the third year FY 2012, scaling was based on a linear function as staff determined that the results of the linear function was very similar to a cube root function, was easier to understand, and aligned with the VBP methodology.

For FY 2013 payment adjustments, the fourth year of the program, the QBR initiative used CY 2010 as the base year and CY 2011 as the performance measurement year. The HSCRC approved the use of 26 CMS/JC core process measures consistent with the changes and additions to the core CMS/Joint Commission and HCAHPS measures and the approved changes to the Maryland QBR methodology. These changes entailed adjusting the blended Opportunity and Appropriateness score whereby hospital scores were based 50% on Opportunity, and 50% on Appropriateness. This was done to shift focus to the patient as the unit of measure. The core process measures accounted for 70%, and HCAHPS 30%, of each hospital's total performance score. To translate performance scores into rewards and penalties, scaling was based on a linear function. With the maximum amount of penalties/rewards at 0.5% of the total revenue of the hospital, this translates into a total amount at risk of \$7.9 million for FY2013.



# **Report Updating the Commission on Changes to the Quality Based Reimbursement (QBR) Program for FY 2015**

## **II. QBR FYs 2014 and 2015 Key Components**

### *A. Scaling Magnitudes*

On January 9, 2013 the Commission approved the staff recommendations below on the scaling magnitudes for QBR program based on the deliberations of the Payment Work Group.

1. Using the FY 2013 scaling magnitudes for FY 2014 for QBR since the performance year (CY 2012) has passed.
2. Allocating 0.5% of hospital approved inpatient revenue for QBR relative performance in FY 2015;

### *B. Measurement Periods*

In order to provide the required base year information to the hospitals, HSCRC will move the base year periods for QBR to most current fiscal year to accommodate a 6-month lag in the data production starting FY 2015 program. Accordingly, the following measurement periods will be used for the QBR program:

FY2014 payments:

Performance period: CY2012

Base Period: CY 2011

FY 2015 payments:

Performance Period: CY 2013

Base Period: FY 2012

### *C. Aligning the QBR program with Value Based Purchasing (VBP) Program*

Inpatient acute care hospitals located in the State of Maryland are not paid currently under the IPPS in accordance with a special waiver provided by section 1814(b)(3) of the Social Security Act. Despite this waiver, Maryland hospitals, for the purposes of the VBP program, continue to meet the definition of a "subsection (d) hospital" under section 1886(d)(1)(B) of the Social Security Act and are, therefore, not exempt from the Center for Medicare and Medicaid Value Based Purchasing (VBP) program.

## **Report Updating the Commission on Changes to the Quality Based Reimbursement (QBR) Program for FY 2015**

The Health and Human Services Secretary may exercise discretion pursuant to 1886(o)(1)(C)(iv) of the Social Security Act, which states that, “the Secretary may exempt such hospitals from the application of this subsection if the State which is paid under such section submits an annual report to the Secretary describing how a similar program in the State for a participating hospital or hospitals achieves or surpasses the measured results in terms of patient health outcomes and cost savings established under this subsection.”

On November 15, 2012, HSCRC staff submitted a letter to Secretary Sebelius requesting a VBP exemption for FY 2014. The CMS letter granting the exemption from FY 2014 VBP program was received on December 21, 2012 and noted that state’s patient experience of care performance continues to lag behind the national medial performance levels and anticipated that Maryland will address the patient outcome measures adopted in the VBP in a FY 2015 exemption request.

Several changes will be implemented starting with FY 2015 to align the QBR program with the CMS VBP program, including:

1. Eliminating appropriateness of care measurement from the QBR program
2. Removing topped off measures from the opportunity domain: All measures that are not topped off will be included in the program. In addition, the HSCRC will evaluate topped off measures that are included in the VBP program and may include additional measures from this list depending on the state performance compared to the national estimates.
3. Adopting patient outcome measures: A mortality measure developed using 3M APR-DRG grouper risk of mortality (ROM) indicators will be added to the program starting FY 2015.

### ***D. Addition of Mortality Measurement Domain***

A mortality measure using 3M APR-DRG grouper risk of mortality (ROM) indicators was included as part of QBR performance for rate year FY2015. A detailed description of the methodology for the mortality domain is provided in Appendix A. Mortality counts and rates were compared using 4 quarters vs. 3 quarters of data with no significant differences in the results. The mortality measures base period uses three quarters of data – FY2012 Q4 and FY2013 Q1 and Q2. Consistent with the base period, 3 quarters of data were used for the mortality measures performance period starting FY 2013 Q4. The performance and base periods will be aligned with the other domains in rate year FY 2016 as depicted in Figure 1 below.

# Report Updating the Commission on Changes to the Quality Based Reimbursement (QBR) Program for FY 2015

Figure 1. QBR Measures Base and Performance Years, FY 2014-2016

	FY11-Q1	FY11-Q2	FY11-Q3	FY11-Q4	FY12-Q1	FY12-Q2	FY12-Q3	FY12-Q4	FY13-Q1	FY13-Q2	FY13-Q3	FY13-Q4	FY14-Q1	FY14-Q2	FY14-Q3	FY14-Q4	FY15-Q1	FY15-Q2
	CY10-Q3	CY10-Q4	CY11-Q1	CY11-Q2	CY11-Q3	CY11-Q4	CY12-Q1	CY12-Q2	CY12-Q3	CY12-Q4	CY13-Q1	CY13-Q2	CY13-Q3	CY13-Q4	CY14-Q1	CY14-Q2	CY14-Q3	CY14-Q4
FY 2014 Rate Year			Base Year															
							Performance Year											
FY 2015 Rate Year						Base Year: Core Msrs, HCAHPS												
								Base Year: Mortality Msr										
											Performance Year: Core Msrs, HCAHPS							
													Performance Year: Mortality Msr					
FY 2016 Rate Year									Base Year: Core Msrs, HCAHPS									
									Base Year: Mortality Msr									
																Performance Year: Core Msrs, HCAHPS		
																Performance Year: Mortality Msr		

## E. Measure List and Performance Thresholds and Benchmarks for FY 2015

Figures 2, 3 and 4 below list the measures in the clinical process, patient experience and mortality domains along with their threshold and benchmark values to be used for rate year FY 2015.

Figure 2. Clinical Process of Care Measures and Final Thresholds and Benchmarks for FY 2015

DOMAIN	MEASURE	Threshold	Benchmark
AMI	AMI-8a - Primary PCI Received Within 90 Minutes of Hospital Arrival	93.00%	97.80%
CAC	CAC-3-Home Management Plan of Care (HMPC) Document Given to Patient/Caregiver	91.00%	99.67%
HF	HF-1 Discharge instructions	95.00%	99.67%
IMM	IMM-1a Pneumococcal vaccination	90.00%	99.40%
IMM	IMM-2 Influenza vaccination	91.00%	98.00%
PN	PN-3b Blood culture before first antibiotic - Pneumonia	97.00%	100.00%
PN	PN-6 Initial Antibiotic Selection for CAP in Immunocompetent Patient	97.00%	100.00%
SCIP	SCIP INF 1- Antibiotic given within 1 hour prior to surgical incision	98.00%	100.00%
SCIP	SCIP INF 4- Cardiac Surgery Patients with Controlled 6 A.M. Postoperative Serum Glucose	95.00%	97.00%
SCIP	SCIP INF 9- Urinary catheter removed on Postoperative Day 1 or Postoperative Day 2	95.00%	99.57%

\*Calculated using FY 2012 data.

## Report Updating the Commission on Changes to the Quality Based Reimbursement (QBR) Program for FY 2015

**Figure 3. Patient Experience of Care Measures and Final Thresholds and Benchmarks for FY 2015**

Domain	MEASURE	Threshold	Benchmark	Floor
HCAHPS	Cleanliness and Quietness of Hospital Envir	64.50%	71.80%	53.00%
HCAHPS	Communication About Medicines (Q16-Q17)	62.00%	70.60%	52.00%
HCAHPS	Communication With Doctors (Q5-Q7)	80.00%	86.00%	72.00%
HCAHPS	Communication With Nurses (Q1-Q3)	79.00%	85.20%	65.00%
HCAHPS	Discharge Information (Q19-Q20)	83.00%	91.20%	66.00%
HCAHPS	Overall Rating of this Hospital	70.00%	80.80%	52.00%
HCAHPS	Pain Management (Q13-Q14)	72.00%	77.80%	59.00%
HCAHPS	Responsiveness of Hospital Staff (Q4,Q11)	61.00%	74.60%	46.00%

\* Calculated using FY 2012 data.

**Figure 4. Mortality Measure Final Threshold and Benchmark for FY 2015**

Domain	Measure	Threshold	Benchmark
MORTALITY	3M-Risk of Mortality	96.53%	98.02%

\* Calculated using FY 2012 Q4 and FY 2013 Q1, Q2 data.

### *F. Domain Weights*

Figure 5 below displays the weights that will be used for each domain for FY 2015 to calculate hospitals' overall QBR scores.

**Figure 5. Mortality Measure Final Threshold and Benchmark for FY 2015**

Domains	Weights
Clinical	0.400
HCAHPS	0.500
Mortality	0.100

### *G. Tools to Support Hospitals' Calculation of Scores*

A calculation spreadsheet has been provided by HSCRC staff to hospitals so that they are able to calculate their scores for clinical process of care measures and the patient experience of care measures (HCAHPS) .

# Report Updating the Commission on Changes to the Quality Based Reimbursement (QBR) Program for FY 2015

## III. Efficiency Measure Considerations for FY2015

### *CMS MSPB Measure for VBP*

In addition to the measures discussed above for the FY 2015 QBR program, CMS will implement the Medicare Spending Per Beneficiary (MSPB) measure for the VBP program. The MSPB measure assesses Medicare Part A and Part B payments for services provided to a Medicare beneficiary during a spending-per-beneficiary episode that spans from three days prior to an inpatient hospital admission through 30 days after discharge. The payments included in this measure are price-standardized and risk-adjusted. Price standardization removes sources of variation that are due to geographic payment differences such as wage index and geographic practice cost differences, as well as indirect medical education (IME) or disproportionate share hospital (DSH) payments. Risk adjustment accounts for variation due to patient health status.

By measuring cost of care through this measure, CMS hopes to increase the transparency of care for consumers and recognize hospitals that are involved in the provision of high-quality care at lower cost to Medicare.

In considering an efficiency measure for the QBR program, HSCRC staff have recently discussed with CMS the potential for HSCRC and CMS staff working together to calculate the MSPB measure for Maryland, and it was determined not to be feasible at this time related to payment system differences and data limitations.

To MHA indicated that they deliberated bringing back the HSCRC's Reasonableness of Charges (ROC) comparison, a rate-setting tool HSCRC used to determine whether a hospital's rates were reasonable. Concerns MHA raised about the former ROC methodology were that:

- it is based on charge levels approved by the HSCRC – not payments, costs, or utilization that the hospital can directly control; and,
- because it measures on a per-case basis, it penalizes hospitals that have reduced utilization.

For FY 2015, MHA recommends using an efficiency measure within the HSCRC's QBR Program that includes equally weighted inpatient and outpatient components – the case mix adjusted length-of-stay, and frequency of admission for “prevention quality indicators.” Appendix B contains MHA letter regarding their recommendation.

HSCRC staff agree with MHA that to more fully address improving patient experience, lowering cost, and improving care quality, an efficiency methodology must be developed and implemented for FY2015 that adequately distinguishes between levels of hospital performance. HSCRC has begun work with the industry to develop this new methodology that will encompass expenditures under the hospitals' control and reward, not penalize, hospitals with reduced utilization.

## **Report Updating the Commission on Changes to the Quality Based Reimbursement (QBR) Program for FY 2015**

Staff does not foresee including the developed efficiency methodology in the QBR program but instead intends to demonstrate to CMS how the Maryland efficiency program meets or exceeds the outcomes and savings of the efficiency provision of the VBP program.

### **IV. Conclusion**

Maryland is a leader in the U.S. in innovative hospital payment systems and the development of other mechanisms to achieve its goals of cost containment, access to care, equity in payment, financial stability, and quality improvement. Maryland's exceptional achievements in recent years under the leadership of the Commission have resulted in hospital pay-for-performance programs that are broader than any other in design and scope, and encompass a robust set of performance measures with strong and increasing emphasis on patient outcomes. Since the inception and initial implementation of the QBR program, it has continually expanded and changed to add additional dimensions of measurement of hospital care and to keep pace with the national developments and trends. HSCRC staff will continue to expand and improve the QBR program to meet the program's overall objectives, and to update the Commission on these changes.

## Appendix A

### HSCRC Final Methodology for QBR Mortality Measure for FY 2015

May 2013

#### Inpatient Mortality Rates using 3M, Health Information Systems Risk of Mortality Adjustment

As 3M Risk of Mortality (ROM) categories--which comprise four levels similar to severity of illness classifications used in the All Patient Refined Diagnosis Related Group (APR DRG) payment classification system-- account for risk adjustment for deaths in the hospital, the ROM may provide an appropriate measure of hospital mortality with a broader focus. 3M APR DRGs and ROM are also used as the risk adjustment methodology for other mortality measures, such as those developed by the Agency for Healthcare Research and Quality.

#### Exclusions

The following categories are removed from the denominators and therefore not included in the mortality rate calculations (excluded from both mortality counts and denominator):

1. Rehab hospitals (provider ids that start with 213)
2. Transfers to other acute hospitals (discharge destination=40)
3. Age and sex unknown
4. Palliative care patients (ICD-9 code = V66.7 or Daily service=10)
5. University of Maryland Shock Trauma Patients (daily service=02, and trauma days>0)
6. Left Against Medical Advice admissions: (discharge destination=71)
7. Trauma and Burn admissions: Admissions for multiple significant trauma (MDC=25) or extensive 3rd degree burn (APR DRG = 841 "Extensive 3rd degree burns with skin graft" or 843 "Extensive 3rd degree or full thickness burns w/o skin graft")
8. Error DRG: Admissions assigned to an error DRG 955 or 956
9. Other DRG: Admissions assigned to DRG 589 (Neonate BWT <500G or GA <24 weeks), 196 (cardiac arrest) due to high risk of mortality in these conditions.
10. APR DRG 004 (Tracheostomy w MV 96+ hours w extensive procedure or ECMO) due to low cell size.

## Appendix A

### HSCRC Final Methodology for QBR Mortality Measure for FY 2015

May 2013

11. Medical (non-surgical) Malignancy admissions: Medical admissions with a principal diagnosis of a major metastatic malignancy.

#### Malignancy Exclusion Codes

Diag	Description	Diag	Description	Diag	Description
1500	Mal neo cervical esopha	1573	Mal neo pancreatic duct	1921	Mal neo cerebral mening
1501	Mal neo thoracic esopha	1574	Mal neo islet langerhan	1922	Mal neo spinal cord
1502	Mal neo abdomin esophag	1578	Malig neo pancreas NEC	1923	Mal neo spinal meninges
1503	Mal neo upper 3rd esoph	1579	Malig neo pancreas NOS	1928	Mal neo nervous syst NE
1504	Mal neo middle 3rd esop	1622	Malig neo main bronchus	1929	Mal neo nervous syst NO
1505	Mal neo lower 3rd esoph	1623	Mal neo upper lobe lung	1960	Mal neo lymph-head/neck
1508	Mal neo esophagus NEC	1624	Mal neo middle lobe lun	1961	Mal neo lymph-intrathor
1509	Mal neo esophagus NOS	1625	Mal neo lower lobe lung	1962	Mal neo lymph intra-abd
1510	Mal neo stomach cardia	1628	Mal neo bronch/lung NEC	1963	Mal neo lymph-axilla/ar
1511	Malignant neo pylorus	1629	Mal neo bronch/lung NOS	1965	Mal neo lymph-inguin/le
1512	Mal neo pyloric antrum	1630	Mal neo parietal pleura	1966	Mal neo lymph-intrapelv
1513	Mal neo stomach fundus	1631	Mal neo visceral pleura	1968	Mal neo lymph node-mult
1514	Mal neo stomach body	1638	Malig neopl pleura NEC	1969	Mal neo lymph node NOS
1515	Mal neo stom lesser cur	1639	Malig neopl pleura NOS	1970	Secondary malig neo lun
1516	Mal neo stom great curv	1640	Malignant neopl thymus	1971	Sec mal neo mediastinum
1518	Malig neopl stomach NEC	1641	Malignant neopl heart	1972	Second malig neo pleura
1519	Malig neopl stomach NOS	1642	Mal neo ant mediastinum	1973	Sec malig neo resp NEC
1520	Malignant neopl duodenu	1643	Mal neo post mediastinu	1974	Sec malig neo sm bowel
1521	Malignant neopl jejunum	1648	Mal neo mediastinum NEC	1975	Sec malig neo lg bowel
1522	Malignant neoplasm ileu	1649	Mal neo mediastinum NOS	1976	Sec mal neo peritoneum
1523	Mal neo meckel's divert	1650	Mal neo upper resp NOS	1977	Second malig neo liver
1528	Mal neo small bowel NEC	1658	Mal neo thorax/resp NEC	1978	Sec mal neo GI NEC
1529	Mal neo small bowel NOS	1659	Mal neo resp system NOS	1980	Second malig neo kidney
1550	Mal neo liver, primary	1910	Malig neopl cerebrum	1981	Sec malig neo urin NEC
1551	Mal neo intrahepat duct	1911	Malig neo frontal lobe	1982	Secondary malig neo ski
1552	Malignant neo liver NOS	1912	Mal neo temporal lobe	1983	Sec mal neo brain/spine
1560	Malig neo gallbladder	1913	Mal neo parietal lobe	1984	Sec malig neo nerve NEC
1561	Mal neo extrahepat duct	1914	Mal neo occipital lobe	1985	Secondary malig neo bon
1562	Mal neo ampulla of vate	1915	Mal neo cereb ventricle	1986	Second malig neo ovary
1568	Malig neo biliary NEC	1916	Mal neo cerebellum NOS	1987	Second malig neo adrena
1569	Malig neo biliary NOS	1917	Mal neo brain stem	19881	Second malig neo breast
1570	Mal neo pancreas head	1918	Malig neo brain NEC	19882	Second malig neo genita
1571	Mal neo pancreas body	1919	Malig neo brain NOS	19889	Secondary malig neo NEC
1572	Mal neo pancreas tail	1920	Mal neo cranial nerves	1990	Malig neo disseminated

12. APR-DRGs that are NOT in the 80% of cumulative deaths after removing all the exclusions above.

13. APR-DRG ROM with a state-wide cell sizes below 20 after removing all the exclusions above.

## Adjustments



## Appendix A

### HSCRC Final Methodology for QBR Mortality Measure for FY 2015

*May 2013*

Based on the regression analysis and discussions at the QBR/MHAC clinical work group the following adjustments are included in the mortality rates:

1. Admission APR DRG with Risk of Mortality (ROM)
2. Age (as a continuous variable)
3. Gender
4. Transfers from another institution defined as source of admission codes of
  - 40 Admitted from another acute general hospital to MIEMS-designated specialty referral or area-wide trauma center
  - 41 Admitted from another acute general hospital inpatient service for any other reason
  - 42 Admitted from rehabilitation hospital or a rehabilitation unit of another acute care hospital
  - 43 Admitted from a private psychiatric hospital or a psychiatric unit of another acute care hospital
  - 44 Admitted from a chronic hospital

#### Model Fit

Regression models used logistic regression models as the outcome of the analysis is a binary variable of death. The results of the model fit indicated the models with additional adjustment of age and transfers from other institutions improved the regression results. The concordance (or C, equivalent to area under the Receiver Operator Curve (ROC)) statistic, which measures how well the model discriminates high risk subjects from low risk subjects, is used to determine the model performance and it's 0.89.<sup>1</sup>

Values for the C-statistics range from 0.5 to 1.0. A value of 0.5 indicates that the model is no better than chance at making a prediction of membership in a group and a value of 1.0 indicates that the model perfectly identifies those within a group and those not. Models are typically considered reasonable when the C-statistic is higher than 0.7 and strong when C exceeds 0.8 (Homer & Lemeshow, 2000).

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<sup>1</sup> Several regression models are fitted, including direct method, log, and complementary log-log and all specifications produced the same mortality rates for hospitals. The model with the APR-DRG and ROM produced R-square of .30 and c-statistic of .87. Adding age as a continuous variable improved the R-square to .33, c-statistic to .90. Sex was not statistically significant factor in the model and did not impact the model fit.

## **Appendix A**

### **HSCRC Final Methodology for QBR Mortality Measure for FY 2015**

*May 2013*

Another measure that can be used for model assessment is the R-square which provides the fraction of variability explained by the model, which is 0.32 in the model. Although the acceptable values of R-square depend on the type of analysis, values above .30 are generally considered respectable in the field.

In both measures, mortality models showed good performance in all years (CY2010-FY2012).



## Appendix B

MHA  
6820 Deerpath Road  
Elkridge, Maryland 21075-6234  
Tel: 410-379-6200  
Fax: 410-379-8239

May 6, 2013

Steve Ports  
Acting Executive Director  
Health Services Cost Review Commission  
4160 Patterson Avenue  
Baltimore, Maryland 21215-2299

Dear Steve:

On behalf of the 66 members of the Maryland Hospital Association (MHA), I am writing to recommend the Health Services Cost Review Commission (HSCRC) adopt a two-step approach to measuring hospital efficiency within the Quality-Based Reimbursement (QBR) system that would adjust rates in FY 2015 and beyond. While FY 2015 seems relatively distant, the performance period that would be used to adjust those rates is calendar year 2013. Our recommendation is to adopt a stop-gap measurement tool for FY 2015 rates while at the same time developing a new efficiency measure for FY 2016 and beyond, which aligns with goals of a delivery system that is more accountable for patient experience, cost, and appropriate utilization.

The Centers for Medicare & Medicaid Services' Value-Based Purchasing (VBP) Program adjusts hospital rates based on performance in four domains: process of care, patient experience of care, outcomes, and efficiency. Maryland's hospitals are eligible for exemption from the VBP Program provided a similar Maryland program meets or exceeds the national program in terms of scope, patient outcome, and cost savings. Maryland received this exemption in FY 2013 and FY 2014. To ensure the Maryland program keeps pace with the national program's inclusion of an efficiency measure, Maryland must also adopt an efficiency measure within the QBR Program.

MHA considered several efficiency metrics to include in the QBR system for FY 2015, many of which have significant limitations. One option is to use the national Medicare Spending-per-Beneficiary measure. This measure includes all Medicare Part A and Part B payments for Medicare patients in three diagnostic groups, three days before through 30 days after an admission. After appropriate adjustments for price variances and severity of illness, a hospital's actual cost is compared to an expected cost. As we understand, HSCRC staff met with Medicare to consider this option and Medicare determined they would be unable to calculate this measure for Maryland's hospitals because of how rates are set.

MHA also considered bringing back the HSCRC's Reasonableness of Charges comparison, a rate-setting tool HSCRC used to determine whether a hospital's rates were reasonable. The problem with this methodology is that it is based on charge levels approved by the HSCRC — not payments, costs, or utilization that the hospital can directly control; and, because it measures on a per-case basis, it penalizes hospitals that have reduced utilization.

## Appendix B

Steve Ports  
May 6, 2013

Page 2

For FY 2015 only, MHA recommends using an efficiency measure within the HSCRC's QBR Program that includes equally weighted inpatient and outpatient components — the case mix adjusted length-of-stay, and frequency of admission for “prevention quality indicators.” The Agency for Healthcare Research and Quality defines its prevention quality indicators as measures of potentially avoidable hospitalizations for ambulatory care sensitive conditions, and intends for these measures to reflect issues of access to, and quality of, ambulatory care in a given geographic area. Combining a population health measure with an inpatient measure recognizes that Maryland's hospitals are moving toward a population-based orientation while still being held to an inpatient focused Medicare waiver test.

Individually, each of these metrics are well understood, however, measuring the rate of admission for ambulatory care sensitive conditions at the hospital level is not common as it requires attributing population to individual hospitals. In recognition of this limitation, MHA recommends weighting the efficiency measure at 10 percent. This would result in the following weighting across the four domains: Efficiency 10 percent; Outcomes (mortality) 10 percent; Patient experience of care 40 percent; and Process at 40 percent.

An example of the proposed efficiency metric is attached. The example uses FY 2012 data and would need to be updated for the calendar year 2012 period. To be combined with the other QBR metrics, thresholds and benchmarks would need to be calculated and applied to the results.

To adjust hospital rates in FY 2016 and beyond, MHA envisions an efficiency measure that includes a payment-per-beneficiary or per capita component, quality indicators, and other key population health metrics. Developing a new metric for use in rate setting requires time to model results, potential adjustments, and time to evaluate whether the metric adequately distinguishes between hospitals with different levels of performance.

I appreciate your consideration of our comments and would be happy to respond to any questions. I can be reached at 410-379-6200.

Sincerely,



Traci La Valle  
Vice President, Financial Policy & Advocacy

Attachment

cc: John M. Colmers, Chairman  
Herbert Wong, PhD, Vice Chairman  
George H. Bone, MD  
Stephen F. Jencks, MD, MPH  
Jack C. Keane  
Bernadette Loftus, MD  
Thomas R. Mullen  
Sule Calikoglu, PhD, Associate Director, Performance Measurement  
Elsa Haile, MS, Chief, Quality Initiatives

# Appendix B

## Efficiency Score

## PQI Denominator: Medical Discharges



	a	b	c	d=b/c	d=b/c	e	f	g=e/f	h=d*.5+g*.5	i	j=a*i	k	l=k/a
Hospital	CPC Revenue	PQI Discharges	Medical Discharges	PQI Rate	Variance to Statewide AVG	Average LOS	CMA LOS	Variance	Blended Rate	Scaled Factor	Scaled Revenue	Neutral Adjusted Scaled Revenue	Neutral Adjusted Scaled Factor
210060 Fort Washington Medical Center	22,194,884	546	1,696	32.19%	70%	4.24	4.19	1.19%	35.43%	(0.05%)	(\$11,097)	(\$11,097)	(0.05%)
210030 Chester River Hospital Center	27,448,470	579	2,122	27.29%	44%	4.52	4.27	5.85%	24.83%	(0.03%)	(9,247)	(9,247)	(0.03%)
210010 Dorchester General Hospital	28,735,800	560	1,888	29.66%	56%	4.56	5.06	(9.88%)	23.22%	(0.03%)	(8,969)	(8,969)	(0.03%)
210034 Harbor Hospital	130,564,560	1,573	6,206	25.35%	34%	4.67	4.43	5.42%	19.50%	(0.03%)	(33,282)	(33,282)	(0.03%)
210045 McCready Memorial Hospital	4,764,618	115	384	29.95%	58%	4.05	5.00	(19.00%)	19.41%	(0.03%)	(1,208)	(1,208)	(0.03%)
210029 Johns Hopkins Bayview Medical Center	240,870,080	2,592	10,628	24.39%	29%	5.07	4.80	5.63%	17.08%	(0.02%)	(52,428)	(52,428)	(0.02%)
210043 Baltimore Washington Medical Center	191,973,170	2,923	12,282	23.80%	25%	5.01	4.98	0.60%	13.01%	(0.02%)	(29,781)	(29,781)	(0.02%)
210015 Franklin Square Hospital Center	251,050,912	3,175	13,558	23.42%	23%	4.73	4.77	(0.84%)	11.29%	(0.01%)	(32,283)	(32,283)	(0.01%)
210051 Doctors Community Hospital	110,413,660	2,227	10,046	22.17%	17%	5.29	5.05	4.75%	10.79%	(0.01%)	(13,352)	(13,352)	(0.01%)
210017 Garrett County Memorial Hospital	18,325,164	329	1,401	23.48%	24%	3.78	3.87	(2.33%)	10.72%	(0.01%)	(2,195)	(2,195)	(0.01%)
210061 Atlantic General Hospital	35,251,727	596	2,289	26.04%	37%	4.64	5.63	(17.58%)	9.82%	(0.01%)	(3,736)	(3,736)	(0.01%)
210035 Civista Medical Center	65,638,300	1,166	5,148	22.65%	19%	4.42	4.48	(1.34%)	9.01%	(0.01%)	(6,143)	(6,143)	(0.01%)
210040 Northwest Hospital Center	123,733,548	2,466	11,182	22.05%	16%	5.12	5.06	1.19%	8.70%	(0.01%)	(10,992)	(10,992)	(0.01%)
210032 Union Hospital of Cecil County	66,178,058	1,010	4,098	24.65%	30%	4.01	4.61	(13.02%)	8.44%	(0.01%)	(5,606)	(5,606)	(0.01%)
210013 Bon Secours Hospital	75,938,096	1,055	4,288	24.60%	30%	4.99	5.73	(12.91%)	8.37%	(0.01%)	(6,361)	(6,361)	(0.01%)
210028 St. Mary's Hospital	59,372,280	1,188	4,933	24.08%	27%	3.46	3.92	(11.73%)	7.59%	(0.01%)	(4,258)	(4,258)	(0.01%)
210003 Prince Georges Hospital Center	171,570,805	1,168	5,719	20.42%	8%	5.47	5.10	7.25%	7.44%	(0.01%)	(11,914)	(11,914)	(0.01%)
210016 Washington Adventist Hospital	186,493,830	1,482	7,384	20.07%	6%	5.30	4.95	7.07%	6.42%	(0.01%)	(10,019)	(10,019)	(0.01%)
210027 Western Maryland Medical Center	156,467,241	1,768	8,604	20.55%	8%	4.91	4.72	4.03%	6.16%	(0.00%)	(7,773)	(7,773)	(0.00%)
210039 Calvert Memorial Hospital	58,619,162	1,126	4,853	23.20%	22%	3.66	4.17	(12.23%)	5.02%	(0.00%)	(1,888)	(1,888)	(0.00%)
210024 Union Memorial Hospital	233,942,808	1,672	7,240	23.09%	22%	4.92	5.58	(11.83%)	4.94%	(0.00%)	(7,233)	(7,233)	(0.00%)
210054 Southern Maryland Hospital Center	145,187,599	2,345	10,646	22.03%	16%	4.35	4.67	(6.85%)	4.62%	(0.00%)	(3,766)	(3,766)	(0.00%)
210037 Memorial Hospital at Easton	89,806,444	1,254	5,917	21.19%	12%	4.20	4.46	(5.83%)	2.93%	-	0	-	-
210008 Mercy Medical Center	186,491,898	1,478	7,315	20.21%	6%	4.25	4.29	(0.93%)	2.78%	0.00%	513	145	0.00%
210005 Frederick Memorial Hospital	167,617,824	2,363	11,587	20.39%	7%	4.58	4.69	(2.35%)	2.57%	0.00%	1,084	306	0.00%
210048 Howard County General Hospital	143,773,213	1,672	8,827	18.94%	(0%)	4.51	4.39	2.73%	1.28%	0.00%	4,207	1,187	0.00%
210011 St. Agnes Hospital	226,412,450	2,551	12,885	19.80%	4%	4.59	4.68	(1.92%)	1.21%	0.00%	6,913	1,951	0.00%
210019 Peninsula Regional Medical Center	244,920,000	2,200	10,951	20.09%	6%	4.68	5.00	(6.40%)	(0.26%)	0.01%	13,864	3,912	0.00%
210006 Harford Memorial Hospital	53,709,990	654	3,301	19.81%	4%	5.06	5.34	(5.24%)	(0.42%)	0.01%	3,186	899	0.00%
210023 Anne Arundel Medical Center	234,949,442	2,750	14,759	18.63%	(2%)	4.17	4.15	0.48%	(0.66%)	0.01%	14,956	4,220	0.00%
210056 Good Samaritan Hospital	188,747,898	2,336	11,706	19.96%	5%	5.56	5.95	(6.55%)	(0.69%)	0.01%	12,124	3,421	0.00%
210033 Carroll Hospital Center	125,397,459	1,474	6,947	21.22%	12%	3.87	4.60	(15.87%)	(2.02%)	0.01%	11,014	3,108	0.00%
210018 Montgomery General Hospital	90,153,792	1,072	5,516	19.43%	2%	4.31	4.64	(7.11%)	(2.35%)	0.01%	8,431	2,379	0.00%
210044 Greater Baltimore Medical Center	207,786,312	1,540	9,043	17.03%	(10%)	4.19	4.18	0.24%	(5.01%)	0.01%	29,232	8,248	0.00%
210007 St. Joseph Medical Center	218,909,250	1,442	8,142	17.71%	(7%)	4.51	4.73	(4.65%)	(5.66%)	0.02%	33,323	9,402	0.00%
210001 Meritus Medical Center	132,898,857	1,557	9,281	16.78%	(12%)	4.62	4.70	(1.70%)	(6.64%)	0.02%	22,557	6,364	0.00%
210038 Maryland General Hospital	126,233,754	885	5,011	17.66%	(7%)	4.96	5.52	(10.14%)	(8.53%)	0.02%	25,654	7,238	0.01%
210055 Laurel Regional Hospital	58,282,350	537	3,101	17.32%	(9%)	4.26	4.83	(11.80%)	(10.27%)	0.02%	13,637	3,848	0.01%
210012 Sinai Hospital	345,854,256	2,283	14,879	15.34%	(19%)	5.21	5.32	(2.07%)	(10.60%)	0.02%	82,963	23,407	0.01%
210022 Suburban Hospital	143,236,016	1,119	7,432	15.06%	(21%)	5.19	5.34	(2.81%)	(11.73%)	0.03%	37,222	10,502	0.01%
210004 Holy Cross Hospital	277,393,654	2,098	14,196	14.78%	(22%)	4.13	4.29	(3.73%)	(12.92%)	0.03%	77,947	21,992	0.01%
210049 Upper Chesapeake Medical Center	117,198,436	1,417	8,825	16.06%	(15%)	4.04	4.56	(11.40%)	(13.39%)	0.03%	33,908	9,567	0.01%
210009 Johns Hopkins Hospital	772,947,938	2,136	20,476	10.43%	(45%)	6.95	5.92	17.40%	(13.81%)	0.03%	229,399	64,724	0.01%
210002 University of Maryland Medical Center	567,218,249	1,352	13,654	9.90%	(48%)	7.41	6.54	13.30%	(17.26%)	0.04%	202,971	57,267	0.01%
210057 Shady Grove Adventist Hospital	208,746,000	997	12,385	8.05%	(58%)	4.42	4.13	7.02%	(25.28%)	0.05%	\$104,373	\$29,448	0.01%
Statewide	\$7,333,420,254	68,828	362,731	18.97%		4.89			Median 2.93%	0.01%	\$695,945	\$0	0.00%

- Impact on Hospitals: (\$52,428) to \$64,724
- For Example Purposes ONLY: Final measure must be compatible with other QBR components

STATE OF MARYLAND  
DEPARTMENT OF HEALTH AND MENTAL HYGIENE



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**HEALTH SERVICES COST REVIEW COMMISSION**

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Stephen Ports  
Acting Executive Director  
Principal Deputy Director  
Policy and Operations

Gerard J. Schmith  
Deputy Director  
Hospital Rate Setting

Mary Beth Pohl  
Deputy Director  
Research and Methodology

**TO:** Commissioners

**FROM:** Legal Department

**DATE:** May 30, 2013

**RE:** Hearing and Meeting Schedule

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**Public Session:**

July 10, 2013 1:00 p.m., 4160 Patterson Avenue, HSCRC Conference Room

August 7, 2013 1:00 p.m., 4160 Patterson Avenue, HSCRC Conference Room

Please note, Commissioner packets will be available in the Commission's office at 11:45 p.m.

The Agenda for the Executive and Public Sessions will be available for your review on the Thursday before the Commission meeting on the Commission's website.

<http://hsrc.maryland.gov/commissionMeetingSchedule2013.cfm>

Post-meeting documents will be available on the Commission's website following the Commission meeting.