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DEPARTMENT OF HEALTH AND MENTAL HYGIENE

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467th MEETING OF THE HEALTH SERVICES COST REVIEW COMMISSION

May 5, 2010

EXECUTIVE SESSION

8:30 a.m.

1. **Comfort Order - Johns Hopkins Health System**

PUBLIC SESSION

9:00 a.m.

1. **Review of the Public Special Session Minutes of April 6, 2010, and the Executive and Public Minutes of April 14, 2010**
2. **Executive Director's Report**
3. **Docket Status - Cases Closed**

   2063R - Carroll Hospital Center
   2064A - Johns Hopkins Health System
   2065A - Johns Hopkins Health Center
   2066A - Johns Hopkins Health Center

4. **Docket Status - Cases Open**

   2067R - Garrett County Memorial Hospital

5. **Draft Recommendations on FY 2011 Update to Hospital Rates**
6. **Draft Recommendations on Maryland Hospital Preventable Readmission Initiative**
7. **Draft Recommendations on Revisions to the Reasonableness of charges (ROC) Methodology**
8. **Staff Update on Proposed Uncompensated Care Policy for FY 2011**
9. **Final Recommendations on One Day Length of Stay**
10. **Final Recommendations for Continued Support of the Maryland Patient Safety Center**
11. **Final Recommendations for FY 2011 Nurse Support II and Competitive Institutional Grants**
12. **Hearing and Meeting Schedule**

IN RE: THE PARTIAL RATE	*	**BEFORE THE HEALTH SERVICES**	
APPLICATION OF THE	*	**COST REVIEW COMMISSION**	
GARRETT COUNTY	*	**DOCKET**	**2010**
MEMORIAL HOSPITAL	*	**FOLIO:**	**1877**
OAKLAND, MARYLAND	*	**PROCEEDING:**	**2067R**

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Staff Recommendation

May 5, 2010

Introduction

On April 7, 2010, Garrett County Memorial Hospital (the Hospital) submitted a partial rate application requesting a rebundled rate for Interventional Radiology/ Cardiovascular services (IRC). A rebundled rate is approved by the Commission when a hospital provides certain non-physician services to inpatients off-site. By approving a rebundled rate, the Commission makes it possible for a hospital to bill for services provided off-site, as required by Medicare. The Hospital is requesting the statewide median rate for IRC services to be effective May 1, 2010.

Staff Evaluation

To determine if the Hospital's IRC rate should be set at the statewide median rate or at a rate based on its own cost experience, the staff requested that the Hospital submit to the Commission all cost and statistical data for IRC for FY 2010. Based on information received, it was determined that the IRC rate based on the Hospital's actual data would be $ 127.10 per RVU, while the statewide median rate for IRC services is $53.78 per RVU.

Recommendation

After reviewing the Hospital's application, the staff has the following recommendations:

1. That COMAR 10.37.10.07 requiring that rate applications be filed 60 days prior to the opening of a new service be waived;

2. That an IRC rate of $53.78 per RVU be approved effective May 1, 2010;

3. That no change be made to the Hospital's Charge per Case standard for IRC services; and

4. That the IRC rate not be rate realigned until a full year's experience data have been reported to the Commission.

Draft Staff Recommendation and Discussion Document Regarding the FY 2011 HSCRC Hospital Payment Update

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May 5, 2010

This document represents a second draft recommendation to be presented to the Commission on May 5, 2010 for discussion purposes only. Comments should be sent to Robert Murray, Executive Director, HSCRC 4160 Patterson Avenue, Baltimore MD 21215 by June 1, 2010.

Background

Payment Update Discussions

Each year, the HSCRC convenes a Work Group consisting of HSCRC staff and representatives from the payer and hospital industries to assist the Commission in the development of the annual update to Maryland hospital rates and approved Charge per Case (CPC) and Charge per Visit (CPV) targets. These deliberations have usually resulted in a proposal for a "rate arrangement" with parameters and criteria that govern the development of annual updates for a three year time frame.

Since the Commission's "Redesign" of the rate setting system in FY 2000, the Commission has generally favored the adoption of rate arrangements covering three year time periods. Three year arrangements were approved for the periods FY 2001-2003, FY 2004-2006, and FY 2007 – FY 2009. These arrangements specify the basic parameters and/or formulaic approach that determine the update factor for each year of the arrangement. Multi-year rate update arrangement define the general trajectory of hospital rates over three years (e.g., the FY 2004-2006 rate arrangement was structured to provide hospitals with significant additional funds to help build profitability and facilitate hospital recapitalization). As such, these multi-year arrangements can be designed to achieve medium-term policy objectives of the Commission and, at the same time, provide a higher degree of predictability for hospitals and payers for financial management and budgeting purposes.

FY 2010 Rate Update Structure: The approved update for FY 2010 was an exception to the Commission's desire to adopt three-year rate arrangements. In FY 2010, the Commission adopted a rate arrangement that applied to only one year given the uncertainty associated with general economic conditions.

Because of uncertainty regarding the impact of national health reform and the uncertain course of the current economic recovery, all parties agree that the Commission should consider a rate update proposal for one year only (increase to rates, CPCs, and CPVs for FY 2011, effective July 1, 2010).

Annual Rate Update Mechanism – Policy Implications

The HSCRC annual rate update is an important policy tool for the Commission and has implications for such important policy considerations as: 1) the affordability of hospital care in the State; 2) the financial condition and viability of the Maryland hospital industry; and 3) the overall long-term longevity of the rate setting system.

Cost Containment Tool: Since the inception of rate setting in Maryland, the HSCRC has structured its annual rate update mechanism to meet predefined policy objectives related to cost containment and the financial condition of the industry. In the early years of rate setting, the system was structured to provide hospitals with updates sufficient to cover factor cost inflation (the rate of growth of inputs to the hospital production process) plus 1% in Maryland at a time when U.S. hospitals' per case revenues were growing at factor cost inflation plus 2 to 3%. Over this period, Maryland payment levels and costs per case grew more slowly than payments and costs nationally. This dynamic contributed to the generation of considerable cost savings to the State in the form of averted hospital spending (estimated to be in excess of $42 billion over the period 1976 to 2008).

Medicare Waiver Impact: The HSCRC's update factor policy also has considerable influence over the State's performance on the Medicare "Waiver Test" (the financial test the State must pass to keep its waiver for national Medicare and Medicaid reimbursement rules). Under the relatively restrictive updates provided for FYs 2001-2003, Maryland significantly improved its performance on the Waiver Test, moving from a position of a 15% relative cushion to an over 18% relative cushion over this period. Conversely, the next three year rate arrangement (FYs 2004 – 2006) contributed to a large erosion in the relative waiver position (from 18% to 11%).

Affordability Impacts: The magnitude of the HSCRC's annual hospital rate update also has significant implications for the affordability of hospital care within the State. Each 1.0% additional increment in the update represents approximately $136 million in annual hospital payments. The approved update factor also has a significant impact on the State budget. The Maryland Medicaid and State Employee Benefits programs respectively account for approximately 17% and 3% of the hospital expenditures. Thus, every 1.0% increase in the annual update will increase State hospital payments by approximately $13 million. The recent expansion of Medicaid eligibility, along with the impact of the recent economic downturn, have contributed to rapid growth in Medicaid enrollment. As of December 2009, Medicaid enrollment has increased at an annual growth rate of nearly 20% (enrollment increased from just over 500,000 recipients as of the end of fiscal year 2008 to an estimated 700,000 recipients year end fiscal 2010. Thus, hospital rate increases have a large impact on the State budget by way of increases in Medicaid and State Employee Benefit Program payments. Hospital payments (and thus the revenues hospitals generate) are also influenced by changes in the volume of services year to year.

Impacts on Hospital Financial Condition: Finally, the magnitude of the HSCRC annual update can also have significant impact on the financial condition of the Maryland hospital industry. During the period of less restrictive rate updates, FY 2004-FY 2009, hospital regulated operating profits increased from 3.5% to 5.8%. The relationship between rate updates and profitability is also influenced by the ability of hospital managers to improve efficiency in the face of constrained revenues. Medpac (the federal Commission that advises Congress on Medicare payment policy) observed that hospitals facing broad financial constraint from both public and private sector payers tend to have much lower costs than hospitals that tend to have high private payer margins and, thus, less broad-based financial pressure. Their overall conclusion is that revenue levels and constrained revenue levels tend to drive cost performance of the industry.

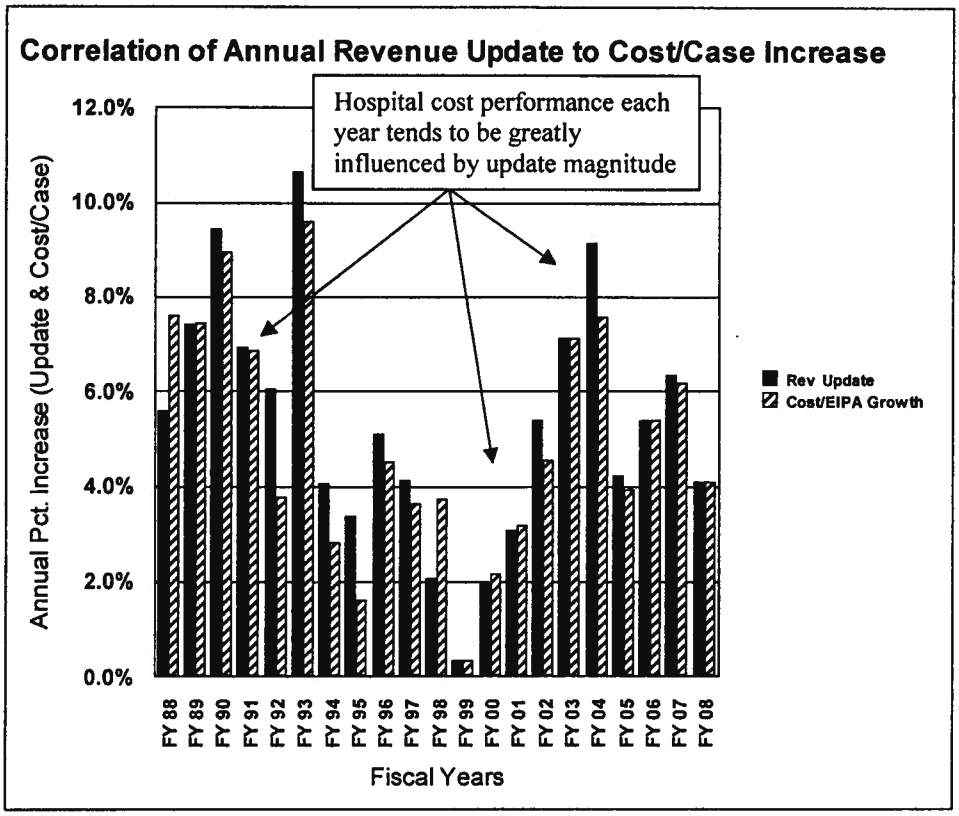
This observation is consistent with HSCRC staff observation that hospitals that face more stringent and broad based constraint tend to reduce costs more effectively. When the HSCRC has provided more restricted inflation updates, operating efficiency and cost performance has improved. When the HSCRC has been more generous in its update factors year-to-year, hospital cost spending increases. This observation is strongly supported by actual year-to-year payment vs. cost experience in Maryland. **Table 1** and **Chart 1** show the year-to-year relationship between approved revenue increases and the resulting hospital expenditure growth over the period 1988 -2008.

Table 1
Correlation of Annual Update to Eventual Cost per Case Growth

	Rev Update	Cost/EIPA Growth
FY 88	5.59%	7.60%
FY 89	7.42%	7.44%
FY 90	9.44%	8.94%
FY 91	6.93%	6.86%
FY 92	6.05%	3.77%
FY 93	10.66%	9.61%
FY 94	4.06%	2.81%
FY 95	3.39%	1.63%
FY 96	5.09%	4.52%
FY 97	4.13%	3.65%
FY 98	2.08%	3.74%
FY 99	0.35%	0.34%
FY 00	1.97%	2.18%
FY 01	3.09%	3.17%
FY 02	5.41%	4.56%
FY 03	7.13%	7.11%
FY 04	9.14%	7.57%
FY 05	4.21%	3.93%
FY 06	5.39%	5.39%
FY 07	6.33%	6.18%
FY 08	4.08%	4.08%

Most hospitals budget their expenses based on their expected income, just as most people do. If revenues are expected to go down, they will reduce their expenditures; if, on the other hand, revenues are expected to increase, they will allow costs to increase accordingly. This can be seen in the following chart, which shows expenses and net patient revenue per EIPA tracking very closely for the period 1988 to 2008. The correlation coefficient between the expense and net patient revenue per EIPA is 0.999. This analysis strongly support Medpac's conclusion in the March 2009 Report to Congress noted above, that revenues drive costs. As pressure is placed on the revenue curve facing the hospital industry, the behavioral response has and will be to improve efficiency.

Chart 1
Hospital Cost Growth Tends to Track Annual Rate Updates



FY 2011 Update Process

Payment Work Group: In November of this fiscal year, the staff assembled a "Payment Workgroup" to assist staff in the development of a draft recommendation for an inflation update to hospital rates for FY 2011 (effective July 1, 2010). This Workgroup consisted of representatives of HSCRC, staff, the Maryland Hospital Association (MHA) and individual hospitals, and public and private payers (including representatives from CareFirst of Maryland, Kaiser-Permanente, United Health Care, Amerigroup, Maryland Medicaid, and the State Employee Benefit Program). The goal of this effort was to assist the staff and the HSCRC in the determination of the most appropriate magnitude, structure, and duration for updates to hospital rates, CPCs and CPVs.

Request of HSCRC Chairman and Update Structure: In response to a request by the HSCRC Chairman, staff solicited one-year and three-year rate proposals from both the hospital and payer representatives

on the Payment Work Group. Staff also requested that the proposals follow the general Update structure and key components used by the Commission since FY 2001. **Table 2** illustrates the Commission's Update Structure and key components as reflected in the HSCRC's approved FY 2010 Update. These components are also described below:

Table 2
HSCRC Approved FY 2010 Update

Market Basket (per Global Insights)	1.59%	
Forecasting Error	NA	
HSCRC "Policy Adjustment"	-0.10%	
Base Update	1.49%	Note 1
Case Mix Allowance	0.50%	
Base Update Plus Case Mix1.99%		
Estimated Rate Year 2009 Volume Adjustment	-0.22%	
Estimated System-wide Update	1.77%	

Notes:
1) One third of base update, or 0.4967%, will be scaled for ROC purposes.
Also, 0.5% will be used to determine adjustment for Quality Based Reimbursement.

Key Components of the Update Factor

1- **Market Basket (MB):** The Market Basket is a fixed-weight index that measures price changes in the underlying factor inputs used in the hospital production process, as per HSCRC policy determined by Global Insight's 1st quarter book 2010 for the period July 1, 2010 – June 30, 2011 (and applicable time-period for a 3 year rate proposal). [1]

2- **Market Basket forecasting error**: An adjustment for historical trends in forecasting error by Global Insight. [2] The Commission has periodically included a factor to account for inflation forecasting errors

[1] The market basket forecasts are developed on a quarterly basis by Global Insight Inc. (GI) under contract with the Center for Medicare and Medicaid Services (CMS). Updates to the market basket are available on a quarterly basis (lagged one quarter) with historical data also being updated at this time. Global Insight Inc. is a respected economic forecasting firm with the detailed macroeconomic and industry knowledge and expertise needed to forecast the price series used in the market basket. The forecasts are available for a 10-year period.

[2] Because many of the current payment systems adjust payments on a prospective basis, the market basket increases used in those updates are a forecast of what those increases will be. The actual market basket increase for a given period can be higher or lower than the forecasted increase available at the time a payment update is determined. This phenomenon is commonly known as forecast error. For example, in the spring of 2010, the HSCRC was required to forecast the market basket increase for fiscal year 2011. The actual change in the market basket for FY 2011 may be higher or lower than what we forecasted in the spring of 2010 depending on market conditions.

over time. Forecasting errors are usually related to the inability to predict untoward catastrophic events such as the Iraqi war and hurricane Katrina. CMS does not include a forecast error in their hospital update.

3- **HSCRC Policy Adjustment**: In past years, the HSCRC Update has contained either a reduction to trend as a means of constraining revenue growth and hospital cost growth (productivity factor), or additions to trend to help improve the financial condition of the hospital industry.

4- **Rate "Slippage"**: This component is an estimate of deviations from approved revenue growth as a result of other features of the rate setting system – such as rate increases granted individual hospitals, the impact of "Spend-down" agreements, or other factors.

5- **Case mix Allowance:** An allowance or limit on annual increases in measured additional resource use due to increase in measured patient severity of illness. Case mix allowances can apply to both inpatient and outpatient services.

6- **Volume Adjustment**: Commission policy regarding recognition of fixed and variable components of hospital cost. Current Commission policy is to recognize hospital costs as 85% variable.

Additional Adjustments: Current HSCRC policy also calls for the revenue neutral scaling of hospital position on the approved Reasonableness of Charges (ROC) comparison and allocation of rewards and penalties related to performance on the HCSRC's Quality-Based Reimbursement (QBR) and Maryland Hospital Acquired Conditions (MHAC) initiatives. The term "scaling" refers to the differential allocation of a pre-determined portion of base hospital revenue based on a distribution of hospital performance related to either relative efficiency or relative quality. This allocation is performed on a "revenue neutral" basis for the system as a whole. This means that the net increases in rates for to better performing hospitals is funded entirely by net decreases in rates for poorer performing hospitals.

In addition to information pertaining to the elements of both a 1-year and a 3-year update, the Commission staff requested that the submitted proposals also address each of the following questions/issues:

1 – **Scaling of ROC**: What magnitude (either dollar amount or percentage of approved revenue) should be devoted to the Commission's scaling based on hospitals' relative position on the FY 2010 ROC analysis;

2- **Scaling of Quality Initiatives**: What magnitude (either dollar amount or percentage of base revenue) should be devoted to the Commission's two quality initiatives (Quality-Based Reimbursement evidence based process measures and Maryland Hospital Acquired Conditions), and how should this magnitude be split between each initiative;

3 – **Specialty Hospital Update**: A proposed structure of the update applying to specialty (psychiatric, rehabilitation, and chronic) hospitals in the system (should it be the same or different from the overall FY 2011 update for the acute care hospitals);

4 –If a proposed 3-year arrangement is formula-based, parties were requested to provide a description of that formula and a list of all salient data sources used to calculate that formula.

5 – Other recommended action that might be related to the FY 2011 update factor.

Environmental Factors Impacting on Rate Update Decision

There are a number of environmental factors that the Work Group will be considering during its deliberations and negotiations regarding the FY 2011 Update factor. A discussion of these environmental factors both in this recommendation and during public deliberations before the HSCRC may be helpful to the Commission in its formulation of a motion and final action on the FY 2011 Update. The key environmental factors being considered are: 1) recent and current hospital financial performance; 2) recent and projected performance of the Rate Setting System on the Medicare Waiver Test; 3) the impact of the various Update Proposals in the context of recommended FY 2011 cuts to Medicaid payments; and 4) the relative affordability and efficiency of Maryland hospitals vs. hospitals nationally.

Hospital Financial Performance: In general, the overall operating performance (both regulated operating profits and unregulated operating profits) of Maryland hospitals has improved over the period FY 2003 to FY 2009 (based on an analysis of 40 June Year End hospitals). Overall operating profits, however, consist of profits from both regulated and unrelated lines of business. While regulated operating profits have experienced rapid improvements since FY 2003 (growing from 3.54% operating margin to 5.86% by 2009), annual increases in hospitals' unregulated losses have, in-part, offset the improved regulated service performance (**see Table 3**).

Overall operating margins deteriorated slightly in FY 2008 and FY 2009 (relative to FY 2007); however this deterioration is completely attributable to an increase in unregulated losses (which is driven primarily by growing losses on physician subsidies and physician practices). Had unregulated losses (and physician losses) remained at FY 07 levels, overall operating margins in FY 09 would have improved to over 3.44% in FY 09.

Table 3
Maryland Hospital Operating Profits
Regulated/Unregulated and Total
FY 2003-2009

Operating Profits and Margins
Regulated, Unregulated, and Total

	Regulated	Unregulated	Total Operating	Physician Part B Losses	Physician Losses as Proportion of Total Unreg. Loss	Total Operating Profit holding Unregulated Loss Constant FY 2007
FY 2009						
Operating Profits	$582,261,100	($316,288,700)	$265,972,400	($263,690,200)	83.37%	$375,659,400
Operating Margins	5.86%	-32.88%	2.44%	-91.40%		3.45%
Includes 40 of 47 Total Hospitals (only June YE hospitals)						
FY 2008						
Operating Profits	$561,065,925	($290,264,092)	$270,801,833	($217,346,000)	74.88%	$334,144,633
Operating Margins	5.24%	-30.05%	2.32%	-83.67%		2.86%
FY 2007						
Operating Profits	$536,175,979	($207,068,523)	$329,107,456	($154,003,200)	74.37%	
Operating Margins	5.37%	-22.23%	3.02%	-65.26%		
FY 2006						
Operating Profits	$461,509,193	($188,139,753)	$273,369,440	($134,415,700)	71.44%	
Operating Margins	5.01%	-23.31%	2.73%	-63.68%		
FY 2005						
Operating Profits	$415,220,488	($146,099,505)	$269,120,983	($114,511,000)	78.38%	
Operating Margins	4.91%	-19.75%	2.93%	-62.14%		
FY 2004						
Operating Profits	$351,315,618	($149,658,021)	$201,657,597	($94,043,000)	62.84%	
Operating Margins	4.51%	-21.19%	2.37%	-54.86%		
FY 2003						
Operating Profits	$249,007,000	($131,180,600)	$117,826,400	($81,032,000)	61.77%	
Operating Margins	3.54%	-20.30%	1.54%	-60.46%		

Staff also examined year-to-date unaudited financials for 8 months ending February of FY 2010 vs. the same period in FY2009. Although unaudited data tend to closely track overall year-end performance – the allocation between regulated and unregulated revenues and expenses tends to be less accurately reported. The picture for FY 2010, however, seems to show steady overall financial performance by Maryland hospitals this year through January 2010, despite facing a very restrictive Update factor in FY 2010 (overall operating margins – both regulated and unregulated were 2.02% in FY 09 six months year-to-date vs. 2.04% for the same period in FY 10). Operating performance dropped considerably during the month of February, however, likely due to the impact on volume of the severe snow storms that hit the State during this month. Another factor impacting hospitals negatively in the last half of FY 2010 is the application of the $17 million in direct remittances from hospitals to the State's General fund associated with Medicaid Budget cuts approved by the Board of Public Works in the fall of 2009.

Table 4 shows the comparison of year-to-date (YTD) performance July-January FY 2010 vs. July-February FY 2010.

Table 4
Year to Date Overall Financial Performance – Maryland Hospitals

Acute Care Hospitals F/S Data
Unaudited Finanical Data
Regulated and Unregulated Services

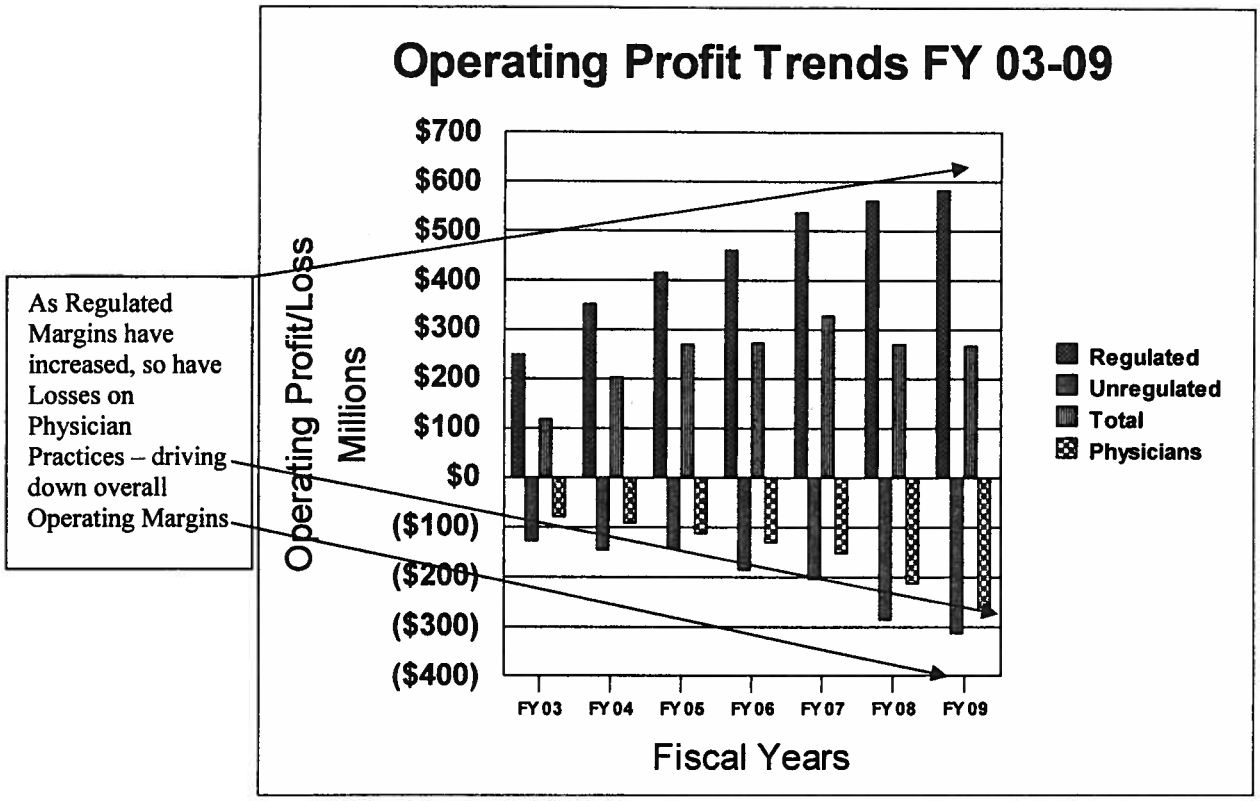
	YTD Jan. 2010	YTD Feb. 2010
Total Operating Profit	1.85%	1.26%
Total Profit	5.04%	4.26%

Rapidly Growing Losses on Physician-related Services: Also discussed, growing losses on unregulated services, and specifically physician related losses, appear to be a large and growing impediment to overall hospital profitability in recent years, and this negative trend seems to be accelerating. **Table 5** and **Chart 2** again, present data on regulated, unregulated, physician-related, and overall profits/losses on operations from FY 2003 to FY 2009. Over this period, overall unregulated losses have more than doubled in dollar terms, while physician losses have more than tripled (thus accounting for a growing percentage of unregulated loss). These growing overall unregulated losses are largely responsible for the flattening of overall operating margins. **Chart 2** seems to show that as regulated margins have increased over time with more generous rate action, hospitals have used surplus funds from regulated services to subsidize their physician lines of business.

Table 5
Trends in Regulated Profits, Unregulated Losses (including physician losses) Total Profits

	Regulated	Unregulated	Total	Physicians
FY 03	$249,007,000	($131,180,600)	$117,826,400	($81,032,000)
FY 04	$351,315,618	($149,658,021)	$201,657,597	($94,043,000)
FY 05	$415,220,488	($146,099,505)	$269,120,983	($114,511,000)
FY 06	$461,509,193	($188,139,753)	$273,369,440	($134,415,700)
FY 07	$536,175,979	($207,068,523)	$329,107,456	($154,003,200)
FY 08	$561,065,925	($290,264,092)	$270,801,833	($217,346,000)
FY 09	$582,261,100	($316,288,700)	$265,972,400	($263,690,200)

Chart 2
Trends in Regulated Profits, Unregulated Losses (including physician losses) Total Profits



Non-Operating Margins: FY 2010 is also characterized by some recovery in hospital non-operating income and liquidity position of hospitals (also see Table 4 above). While overall operating performance remained stable in FY 2009, hospitals (along with most other businesses) experienced large non-operating losses. These non-operating losses include both realized losses from investments (due largely to liquidated equity positions following the large declines in the equity market), unrealized losses from current investments, and large "mark-to-market" swap liabilities associated with interest rate swaps on the balance sheets of hospitals. The primary impact of these realized and unrealized losses in FY 09 was that they placed pressure on the liquidity position of hospitals in that: 1) investment declines directly reduce cash positions; and 2) unrealized losses related to swap arrangements trigger collateral calls (the requirement that hospitals post additional cash as collateral as the magnitude of swap liabilities increase). The partial recovery in the non-operating position of hospitals and the narrowing of rate spreads have reduced the collateral requirements for hospitals in FY 2010 and have mitigated some of the liquidity pressure experienced in the previous year.

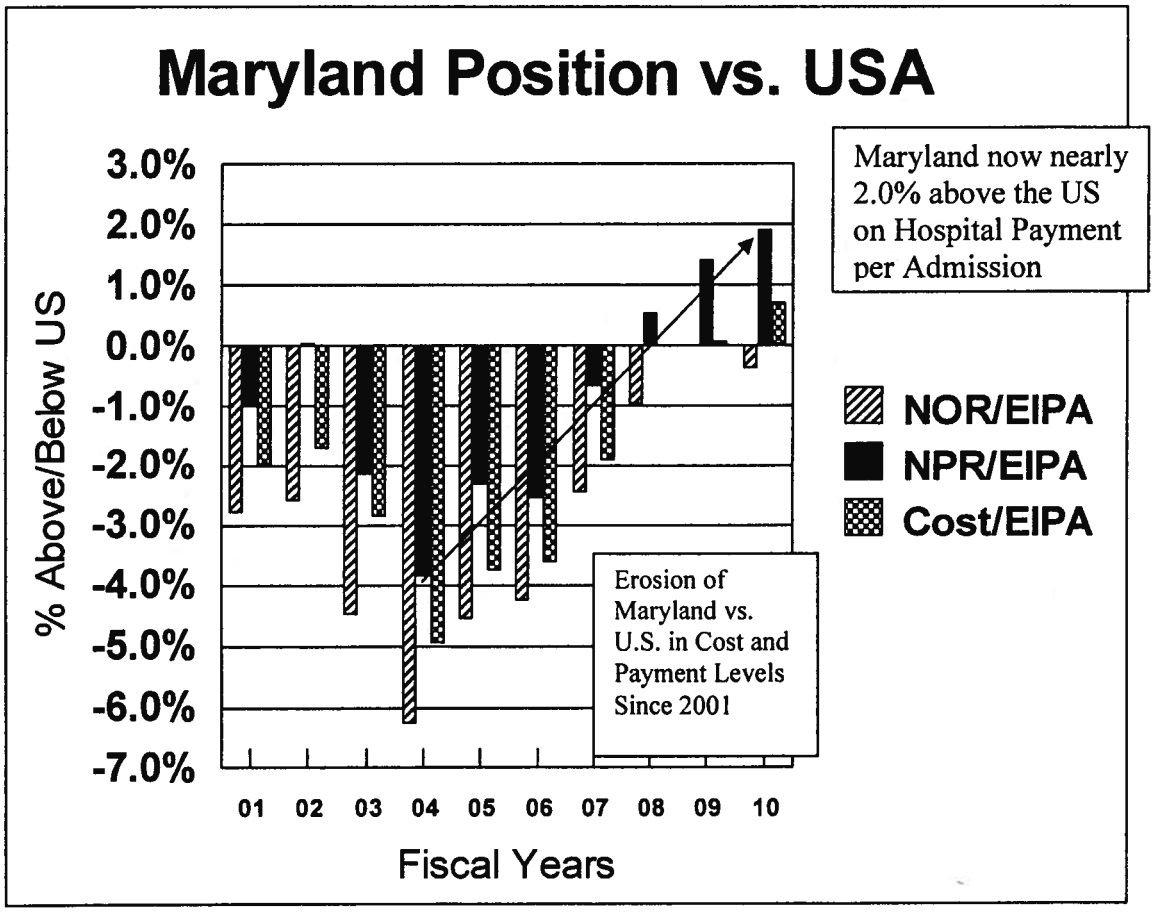
Relative Affordability of Hospital Care and Maryland's Cost Performance vs. the U.S.: General economic activity nationwide was in a state of "severe contraction" in FY 2009 with national GDP estimated to have declined significantly for much of FY 2009. While economic growth has started to recover, the severe economic downturn has pushed unemployment rates above 10% in recent months. This contraction has impacted virtually all sectors of the economy. The growing un-affordability of hospital services has been a large concern of the HSCRC in recent years. This recent contraction in economic activity means that health care services have become even less affordable. This dynamic is particularly pronounced in Maryland relative to the rest of the U.S. because hospital payments and costs have increased more rapidly here than in the rest of the country over the past 4-5 years. **Table 6 and Chart 3** below show how Maryland hospital payment levels and

costs have increased relative to hospital payment levels -- Net Patient Revenue (NPR) and Net Operating Revenue (NOR) -- and hospital costs nationally.

Table 6
Trends in the Relative Affordability of Maryland Hospital Care (Maryland Hospital NOR, NPR and Cost per EIPA vs. US Hospitals)

Year	NOR/EIPA	NPR/EIPA	Cost/EIPA
01	-2.80%	-1.03%	-2.00%
02	-2.60%	0.03%	-1.72%
03	-4.51%	-2.18%	-2.86%
04	-6.27%	-3.88%	-4.97%
05	-4.59%	-2.32%	-3.76%
06	-4.28%	-2.58%	-3.65%
07	-2.46%	-0.71%	-1.92%
08	-0.99%	0.53%	-0.01%
09	-0.03%	1.42%	0.06%
10	-0.39%	1.90%	0.70%

Chart 3
Erosion of Maryland Hospital Payments and Costs vs. US Hospitals



Trends in Hospital Input Cost Inflation: The economic slowdown, however, has also had the effect of curtailing the growth in factor costs (the cost of inputs to the production process). Wage growth nationally is flat, with many sectors starting to cut wages (in addition to layoffs and furloughs of employees). Flat or declining wages continue to create slack in the labor market, including the health care sector, which will help alleviate previous shortages of nurses and allied health professionals.

The current estimate (released in April 2010) for increases in hospital input costs (increases in the inputs to the hospital production process) in the coming fiscal year FY 2011 is 2.29%. The hospital input cost inflation estimate consists of both wage and non-wage components. Hospital wages, (accounting for 60% of hospital costs) were projected to increase at 2.40%, while non wage and non-capital items (accounting for 40% of hospital operating costs) were forecasted to grow at 0.94%. These lower than normal trends in the inflation rate of hospital input costs have facilitated hospitals in maintaining relatively steady operating margins in FY 2010. **Table 7** summarizes the estimated increases in hospital input costs by category.

Table 7
Global Insights Market Basket Components (hospital input cost inflation FY 2011)

Global Insights
Market Basket Components
(hospital input cost inflation FY 2011)

Category	% Increase	Weight	
Compensation	2.4%	59.5%	
Utilities	-0.8%	2.1%	-0.02%
Professional Liability Insurance	-0.4%	1.4%	-0.01%
All Other Costs	2.6%	37.0%	0.96%
Non-Capital Total	2.4%		0.94%
Capital	1.1%		
Weighted Cost inflation	2.29%		

Medicare Waiver Situation

Deterioration in recent years: In recent years, the HSCRC has been concerned about unexpected deterioration in the rate system's performance on the Medicare Waiver Test. The deterioration in the test performance has continued through the quarter ending December 2008 (the last official waiver test available), when the relative test was 6.72% (if the relative test drops to 0%, the State will be determined to have failed the test). The State must pass this financial test in order to retain its ability to have Medicare participate in the All-Payer system. Medicare's participation results in the equitable sharing of the costs of Uncompensated Care. Overall, the Medicare Waiver results in over $1 billion per year in enhanced federal reimbursements to Maryland hospitals. In the period FY 2001 – FY 2007, the relative test was in the 12-18% range.

Likely Technical Adjustments to the Waiver Test: It now appears that some of this unexpected erosion in the Waiver Test performance was due to the use of inaccurate data in the calculation of U.S. Medicare payments per case. These technical changes relate to the likely inclusion of two categories of "zero payment" cases (Medicare as Secondary Payer (MSP) and Medicare Advantage/HMO (MA) cases) to the US Medicare data used to calculate the US Medicare Payment per case. This US Medicare Payment per case figure is used in a comparison with Maryland Medicare Payment per case data for purposes of calculating the waiver test.

In recent months, HSCRC staff has been meeting with the CMS actuary regarding these likely inaccuracies. The actuary has agreed to two technical changes that should result in an improvement in our relative cushion by 1.7% associated with the removal of the MSP cases, and an estimated 3.0% associated with Medicare MA cases. Should the Medicare Actuary make these adjustments, this should result in an improvement of our waiver position by nearly 5.0% for the period ending September 2009 (relative to what would have been the case had these adjustments not been made).

Further Short-Term Improvement in Waiver due to US Coding and Payment Improvements: Another short-term favorable development for Maryland's Medicare waiver performance is the projected increases in Medicare Payments to non-Maryland hospitals related to Medicare's conversion to a severity-adjusted DRG grouper and associated case mix coding and documentation improvements for federal Fiscal Years (FFY) 2008, 2009, and 2010. While this phenomenon will result in a short-term increase in Medicare payments nationally, CMS is implementing current and future "offsets" (reductions to US hospital rate updates) to recoup both permanent and one-time amounts associated with these coding and documentation improvements. It is thus anticipated that Maryland's Medicare waiver cushion will continue to improve from the projected/adjusted levels through FY 2010. Beginning in FFY 2011, however, Medicare is proposing very large offsets to its payment updates to adjust for excessive payments related to coding and documentation improvements.

Revised US Medicare Payments and Waiver Cushion: Table 8 below shows the staff's estimate of the CMS actuary's "forecast" of FY 2009 and FY 2010 data. **Table 9** then shows the Maryland waiver cushion assuming the CMS actuary makes adjustments for the MSP and MA "zero-pay" cases (the actuary indicated his belief that these adjustments would be incorporated into the June 2009 Medicare waiver letter to be sent to the HSCRC sometime in August 2010). Note also, **Table 9** shows the likely impact of a reduction in Medicare one-day length of stay cases of 1.0% relative to historical levels (i.e., Maryland has traditionally had over 17% of its Medicare cases as one day stay cases, while the US average for Medicare has been closer to 13%; this adjustment assumes that Maryland will improve its performance on one day stay Medicare cases from 17% to 16% in FY 2010). The result of these actuary adjustments and the staff's anticipated impact on the waiver cushion for reductions in the number of Maryland Medicare one-day stay cases (also factoring in Maryland's slower overall payment growth due to the imposition of a 1.77% update factor in FY10), will be to push the waiver cushion to approximately 13.43% by June 2010.

Table 8
"Forecasted" FY 2009 and FY 2010 Waiver Cushions based on CMS Actuary Estimates of US Medicare Payment Growth and Associated Coding/Documentation Offsets Nationally

A	B	C	D	E	F	G	H
	US Medicare Pmt/Case		MD Medicare Pmt/Case				
1981 base pmt/case	$2,293	US	$2,972	MD	Unadjusted		
	Annualized	Growth	Forecast	Growth	Cushion		
FFY 08 Qtr 4 Dec	**$9,480**	**313.42%**	**$11,501**	**287.02%**	**6.82% Actual**		
Qtr 1Mar CY 08	**$9,547**	**316.34%**	**$11,604**	**290.49%**	**6.62% Actual**		
Qtr 2June	**$9,610**	**319.09%**	**$11,688**	**293.32%**	**6.55% Actual**		
Qtr 3 Sept	**$9,671**	**321.75%**	**$11,849**	**298.72%**	**5.77% Actual**		
FFY 09 Qtr 4 Dec	**$9,808**	**327.72%**	**$11,910**	**300.78%**	**6.72% Actual**		
Qtr 1 Mar CY 09	$9,893	331.43%	$11,974	302.95%	7.07% Projected	<—	Waiver improves
Qtr 2 June	$10,004	336.27%	$12,052	305.56%	7.57% Projected	<—	due to US coding
Qtr 3 Sept	$10,114	341.06%	$12,105	307.36%	8.27% Projected	<—	impact and starting
FFY 10 Qtr 4 Dec	$10,190	344.38%	$12,159	309.15%	8.61% Projected	<—	in Qtr 3 2009 due
Qtr 1 Mar CY 10	$10,267	347.74%	$12,212	310.95%	8.95% Projected	<—	to lower Maryland
Qtr 2 June	$10,344	351.09%	$12,265	312.74%	9.29% Projected	<—	update through FY 10
Qtr 3 Sept	$10,420	354.41%					

Table 9

Adjusted Waiver Cushion based on Expected Adjustments for MSP and MA "Zero-pay" Cases

A	B	C	D	E	F	G
	Unadjusted Cushion		Estimated Annualized MSP Adj	Estimated Annualized MA AdJ	Estimated 1 day LOS Adjustment (1)	**Revised Cushion**
FFY 08 Qtr 4 Dec	**6.82% Actual**					
Qtr 1Mar 2008	**6.62% Actual**					
Qtr 2June	**6.55% Actual**					
Qtr 3 Sept	**5.77% Actual**		1.60%	1.79%		**9.16%**
FFY 09 Qtr 4 Dec 2008	**6.72% Actual**					
Qtr 1 Mar 2009	7.07% Projected					
Qtr 2 June	7.57% Projected					
Qtr 3 Sept	8.27% Projected					
FFY 10 Qtr 4 Dec 2009	8.61% Projected		1.70%	3.00%	-0.56%	**12.75%**
Qtr 1 Mar 2010	8.95% Projected		1.70%	3.00%	-0.56%	**13.09%**
Qtr 2 June	9.29% Projected		1.70%	3.00%	-0.56%	**13.43%**
Qtr 3 Sept						

(1) In response to the impending CMS Recovery Audit Contractor (RAC) audit and potential changes to HSCRC rate setting incentives relating to One Day Stay (ODS) cases, staff anticipates a 1.0% improvement in Maryland hospitals' one day stay performance beginning in FY 2011 for Medicare cases. Maryland currently is estimated to have 17% of its Medicare cases as ODS cases. An improvement of this performance to 16% of Medicare cases in FY 2011 would result in a 0.56% erosion in our Medicare cushion. This expected impact is shown in column F in the above table.

Potential Medicare Payment Updates - FFY 2011: In April, 2010, CMS released its proposal for the FFY 2011 update for US hospitals (effective October 1, 2010). Table 10 presents this proposed rule, which currently reflects a 2.9% reduction to this update related to the above-noted case mix/coding and documentation issues. The 2.9% is half of the required one-time reductions associated with coding/ documentation improvements. This proposed rule, then, also anticipates that a second 2.9% offset would occur in FFY 2012.

Separately, Medpac recently approved a recommendation to reduce this 2.9% to a magnitude not to exceed 2.0% for three years FYs 2011, 2012 and 2013. Given Congress's tendency to reduce offsets to Medicare updates from what is proposed to the issuance of the final update rule in August, staff anticipates ultimate adoption of the Medpac recommended offsets (shown here as -1.93%, which is one-third of the required total 5.8% offset).

Table 10

Medicare Proposed Rule for the FFY 2011 Update to US Hospital Payment Levels

	April 10 CMS Proposed Rule	Medpac Alternative
Market Basket	2.29%	2.29%
MB reduction	-0.25%	-0.25%
Subtotal	2.04%	2.04%
Projected CM	1.00%	1.00%
Subtotal	3.04%	3.04%
Outlier pmt increase	0.40%	0.40%
Subtotal	3.44%	3.44%
Offset for coding	-2.90% (1)	-1.93% (2)
Total pmt increas	**0.54%**	**1.51%**

(1) Proposed rule - April 2010 recommends a 2.90% offset for Case Mix coding/documentation growth of 5.8% (during 2008, 2009 and 201

(2) Medpac recommended to Congress (March 2010 report) to apply Case Mix offset over three years (FFY 2011, 2012, and 2013)

Potential Future Year Updates FFY 2011-2016: The agreement of the CMS actuary to adjust our payment comparison for MSP and MA "zero-pay cases" is certainly a highly favorable development. However, given large current and projected federal budget deficits and the passage of national health reform, Medicare updates in future years will likely be far less than historical levels. **Table 11** is staff's first attempt to account for all future and currently planned adjustments to hospital updates and payments for the period FFYs 2011-2016 (including staff's best estimate for CMS' final update for FFY 2011). Given these likely reduced update magnitudes, it is expected that Maryland will begin to face significant challenges in avoiding precipitous erosion in the waiver cushion over this 6 year period.

Table 11

Projected Adjustments and Payment Changes per Federal Health Reform Law

Estimated Medicare Payment Updates in Future Years
Based on Provisions in Federal Law

Note		FFY 2011	FFY 2012	FFY 2013	FFY 2014	FFY 2015	FFY 2016
(1)	MB	2.29%	2.90% (1a)	3.00% (1b)	3.00% (1b)	3.00% (1b)	3.00% (1b)
(2)	MB offset	-0.25%	-0.25%	-0.10%	-0.10%	-0.30%	-0.20%
(3)	CM	1.00%	1.00% (3a)	0.75% (3b)	0.75% (3b)	0.50%	0.50%
	Sub tot	3.04%	3.65%	3.65%	3.65%	3.20%	3.30%
(4)	Outlier pmt	0.40%	0.00%	0.00%	0.00%	0.00%	0.00%
	Sub tot	3.44%	3.65%	3.65%	3.65%	3.20%	3.30%
(5)	Coding Offset (1-time)	-1.93%	0.00%	0.00%	1.93% Reverse	0.00%	0.00%
(5)	Coding Offset (perm)	0.00%	-2.00% Spread	-1.50% Spread	-1.50% Spread	0.00%	0.00%
	Sub tot	1.51%	1.65%	2.15%	4.08%	3.20%	3.30%
(6)	Productivity	NA	NA	-1.30%	-1.30%	-1.30%	-1.30%
(7)	Mcare Comm.	NA	NA	NA	NA	0.00%	-0.50% (7a)
(8)	VBP net	NA	NA	NA	-0.50%	-0.62%	0.37%
(9)	HAC adj	NA	NA	NA	NA	0.00%	-1.00%
(10)	DSH	NA	NA	NA	NA	-0.47% (11a)	-0.47% (11a)
	Pmt Change	**1.51%**	**1.65%**	**0.85%**	**2.28%**	**0.81%**	**0.40%**
(11)	Readmission adjustment	NA	NA	-1.00%	-1.00% (10a)	-1.00% (10a)	-1.00% (10a)

Notes:
(1) MB = Market basket; we updated FY 2012 based on GII current forcast for book 2, 2012 (1a). For simplicity we assumed 3.0% MB for out years (1b)
(2) MB offset in current law by year
(3) Case mix assumed in Proposed Rule to be 1.0% for 2011 - We kept at 1.0% of 2012 and reduced to 0.75% & 0.50% in out years
(4) outlier payment increase projected in 2011 Proposed Rule
(5) Current Proposed Coding offset 1-time amount -2.9% - also applies to 2012 in order to recoup full 5.8% coding increases (but Medpac recommends 1.93% over 3 years) Permanent amount scheduled to apply in FY 2012 -3.9% (staff anticipates a spreading of this permanent reduction in 3 pieces over FFY 2012-2014)
(6) Productivity offsets in current law (assume these are annual reductions to payment update)
(7) Medicare Commission offsets in current law (uncertain as to whether these are handled like Productivity - annual reductions or we should only reflect the incremental increase in this offset)
(8) Value Based Purchasing - shows an initial net savings of -0.5% but then I reflect additional increments for future years
(9) Hospital Acquired Condition adjustment - assumed to be 1.0% payment reductions each year because Medicare current policy is for payment decrements
(10) DSH adjustment is complicated - overall expected DSH reduction -1.88%. I assume a 25% reduction to DSH over 4 years as increased coverage phased in Maryland UC is expected to decrease faster than DSH adjustment nationally)
(11) Readmission adjustment - also assumed to be 1.0% savings due to reduced volumes (not sure how to reflect this in terms of the update) reduced cases will drive up US Medicare payment per case

Significant State Budgetary Shortfalls:

General Background: As discussed above, the Board of Public Works recommended additional Medicaid payment cuts in excess of $35 million in FY 2010. In the past, Medicaid payment savings have been achieved through the implementation of Medicaid Day Limits (limitations on payments to hospitals for Medicaid patients above some pre-determined threshold). An additional $10 million of Medicaid payment cuts (associated with

the failure of last year's False Claims Act) were included in the Governor's supplemental budget. The Commission believes this approach is both a highly inefficient and inequitable method of achieving such savings. Because Medicaid is funded by both State and federal funds, a payment cut of over $117 million would be required to generate Medicaid General Fund savings of $45 million. These very high payment reductions would then have to be built into hospital UC provisions, which results in cost-shifts to all other payers. To avoid the loss of federal funds and in order to more equitably fund the required budget cuts, the HSCRC implemented a system of direct assessments and hospital remittances to achieve the required $45 million of savings.[3]

The State of Maryland continues to face significant budgetary shortfalls. In response to the worsening budget situation, the Governor's budget allowance for FY 2011 assumes $123 million savings in Medicaid expenditures. Under a "payment cut" approach, a Medicaid payment reduction of $320 million would be required to generate the needed savings. While $123 million equates to approximately 5% of Medicaid hospital payments, $320 million is over 14% of Medicaid hospital payments. The HSCRC could not accommodate payment cuts of this magnitude (which would result in massive revenue reductions to hospitals and/or large increases in hospital UC and UC provisions and loss of federal funds). Thus, the new challenge facing the Commission in attempting to reach a consensus decision on an appropriate Update to hospital rates relates to how the rate system should best achieve the required targeted budget savings for FY 2011.

At the Special session held by the HSCRC on April 6, 2010, the Commission voted unanimously to share any or all of the $123 million in required Medicaid savings for FY 2010, 30% directly from hospital operating budgets and 70% from an assessment on hospital rates. This decision reflects a departure from the Commission's standing policy to share such burdens 50/50% across hospitals and payers.

Medicaid and Departments of Budget and Management Determination of Required Savings: The determination of the $123 million required savings related to Medicaid hospital payments was predicated on an assumed all-inclusive and blended inpatient and outpatient HSCRC hospital rate update of 2.82% for FY 2011. If the Commission adopts an Update that is below this assumed 2.82% level, additional savings (versus budgeted levels) will accrue to the Medicaid program, and the $123 million assessment/remittance burden can be reduced.

Discussions Regarding Additional Ways to Generate Medicaid Savings

Beyond the debate and deliberations over the FY 2011 Update Factor, a second topic of discussion of Payment Work Group members concerned how the HSCRC might institute other initiatives that would have the potential for generating additional Medicaid savings, and thereby reduce the $123 million in Medicaid cuts to be handled by means of the assessment/remittance mechanism approved by the Commission at its April 6th Special Session. Other initiatives with the potential to generate Medicaid savings and reduce the $123 million Medicaid burden included the following:

1) Lower Update than Budgeted for FY 2011

As discussed in the original draft payment recommendation, if the Update Factor for FY 2011 turns out to be lower than the Update budgeted by the Department of Budget and Management (DBM) (in establishing its FY 2011 budget and determining the need for the additional Medicaid cut, DBM projected a blended inpatient and outpatient update factor – net of changes in markup of 2.82%). This will result in an offset to the Medicaid cuts for FY 2011. Any rate update below this level would generate additional savings that would offset a portion of the required Medicaid cut (an offset of the $123 million of about $1 million for every 0.1% the actual update is below the 2.82% combined update, less any change in markup for FY 2011). At this stage, staff estimates that the markup to rates (related primarily to increases in uncompensated care provisions for FY2011) will

[3] The sharing of the FY 2010 cuts was later amended by the Commission to achieve a 50/50% sharing of the total $45 million in BPW and State Budget bill cuts over the course of 2 years, FY 2010 and FY 2011.

approximate 0.5%. This means that the update for FY 2011 must be 2.32% or less to generate additional offsets to the $123 million in Medicaid cuts. An update in excess of 2.32% for FY 2011 will require additional amounts to the $123 million budgeted cuts.

2) Examination of Chronic Hospitals' Rate Structures

Payer representatives and representatives of Maryland Medicaid and the Department of Budget and Management have raised concerns regarding the relatively high rate structure of Maryland's five Chronic Care hospitals/units. These hospitals include Levindale Hospital (a member of Lifebridge Health), University Specialty Hospital (a member of the University of Maryland Medical System), Gladys Spellman (a member of the Dimensions Health System), Kernan Hospital, and the Mason Lord Center (offering chronic care services at the Johns Hopkins Bayview Medical Center).

These representatives believe that the rate structures of these facilities are high relative to alternative providers (Skilled Nursing Facilities), and that a proportion of the care provided by these Chronic hospitals/units (particularly for certain types of patients on ventilators) could be adequately delivered at these lower cost settings. It was recommended that the HSCRC undertake a review of these facilities' rates relative to the pricing structure of comparable services at Maryland Skilled Nursing Facilities.

In response, HSCRC staff has undertaken a review of the Chronic hospital charges and cases based on an analysis of the case mix data submitted to the Commission. The staff will report back to the Commission on the results of this analysis and develop recommendations for possible rate action in the coming months.

3) Reductions in State Payments for Maryland Medicaid Patients Receiving Care at Washington DC Hospitals (particularly Children's Hospital of DC)

One payer representative also commented on the relatively high rate structure of Washington DC hospitals, particularly Children's Hospital of DC. It was theorized that Medicaid payments to DC Children's were far in excess of payments for comparable services at the State's two premier academic centers. If this was determined to be the case, it could provide rationale for Maryland Medicaid to lower the payment formula used to reimburse care at DC Children's. Staff and the Department of Health are performing an analysis of Maryland Medicaid payments to DC Children's (using the Johns Hopkins Children's Center as a basis of comparison) to determine if Medicaid payments to DC Children's are excessive. Staff continues to pursue this option and may recommend that the Secretary of Health consider a change to the current reimbursement formula applied to Children's Hospital as a means of saving the Maryland Medicaid program additional funds and thereby reducing the existing burden for funding Medicaid shortfalls now being shouldered by Maryland facilities and Maryland patients and payers.

4) Pooling of Graduate Medical Education Costs

In FY 2009, in an effort to generate savings to the Maryland Medicaid program, the HSCRC approved full pooling of hospital Uncompensated Care (UC). This proposal resulted in a more equitable distribution of the funding of hospital UC and resulted in an approximate $9 million savings to the Maryland Medicaid program (because Medicaid patients received care at hospitals with higher levels of UC and thus higher overall hospital rates, Medicaid's share of UC funding was disproportionately higher than that of other payers). Full pooling of hospital UC reduced Medicaid's relative burden and allowed for a more equitable sharing of this social cost. This same logic would apply to the funding of Graduate Medical Education (GME) in the system (that is, Medicaid patients are more concentrated at teaching hospitals in the State and thus bear a disproportionate share of the funding of GME). Full pooling of GME would share this burden more equitably across payers and result

in Medicaid savings. Staff is completing an analysis of the impact of full pooling of GME. This option is not available to the Commission for FY 2011 as it would require a statutory change.

5) Increasing the Medicare/Medicaid Differential

Hospital representatives raised the possibility of increasing the "differential" provided by agreement to Medicare and Medicaid (currently these public payers pay 94% of HSCRC charges per the negotiated agreement between Maryland and the federal government under the Medicare waiver). Increasing the differential from the current 6% to some higher amount would result in savings to both the Medicare and Medicaid programs. However, in order to finance full hospital costs – any rate differential results in a direct cost-shift to all other payers in the system. Any additional cost-shifting to private payers would likely have deleterious effects on the affordability of insurance for the citizens of Maryland. Also, a change in the Medicare/Medicaid differential would require approval by the federal government. Staff would strongly oppose any attempt to renegotiate the terms of the Medicare waiver and institutionalize additional cost-shifting to the paying public in Maryland.

Other Topic of Discussion – First Potential "Game Changer"

In addition, the Payment Work Group discussed the need for the development of alternative payment arrangements in Maryland to strengthen, broaden, and align incentives to both improve operating efficiency and quality of care. In that regard, staff has solicited proposals from hospitals for the establishment of Total Patient Revenue (TPR) arrangements with the HSCRC. TPR arrangements establish a global budget cap for a hospital and thus provide very strong incentives for that a facility to control volume and otherwise direct patients to lower cost services and providers. Two hospitals in Maryland (Garrett County and McCready Hospital) are currently under the TPR rate structure; however, as many as 5 hospitals have operated successfully under the TPR. Staff is currently in negotiation with four other hospitals/health systems in an attempt to bring these facilities under the TPR.

The Payment Work Group will continue to meet during the month of April in an attempt to reach a consensus or near consensus position regarding the hospital rate update for FY 2011 and future years.

Update Proposals from Hospitals and Payers

Maryland Hospital Association Proposal

The MHA chose to submit a one-year rate proposal, due to "current uncertainty regarding national health care reform discussions, the State's budget situation, as well as expected discussions over the next year on the development of a modernized vision for Maryland's Medicare wavier and future payment system" (the MHA Proposal). Subsequent to their initial submission, the MHA did modify their proposal slightly (changing several components of their proposal which resulted in a reduction to their original proposal of 0.4% to reach a combined inpatient and outpatient update of approximately 3.28%). Staff has slightly modified the original MHA Proposal for purposes of comparability.

At the April 26th meeting of the Payment Work Group, the MHA further agreed to take 100% of any additional funding of Medicaid savings shortfalls that might be produced from an Update that exceeds the Medicaid budgeted FY 2011 level of 2.82%. This revised proposal is shown in **Table12** below.

Table12
Hospital Revised One-Year Payment Update Proposal

Proposed Update Factor (MHA) (Revised)
Rate Year Ending June 30, 2011
One Year Arrangment

	Inpatient	Outpatient	Total	
Global Insight's - 1st Qtr Book for RY 6/30/11	2.29%	2.29%	2.29%	
Inflation Forecast Error	0.38%	0.38%	0.38%	
Subtotal Inflation Allowance	2.67%	2.67%	2.67%	
Policy Adjustment (Improvement to US)	-0.10%	-0.10%	-0.10%	
Subtotal Update	2.57%	2.57%	2.57%	
Slippage For RY 2010	0.03%	0.03%	0.03%	
Rate Update Provided	2.60%	2.60%	2.60%	
Volume Adjustment (RY 2010 over RY 2009)	-0.26%	-0.26%	-0.26%	Note 1
CMI Adjustment (Lower of Actual or Limit)	0.75%	1.25%	0.94%	Note 2
Full Update Provided	**3.10%**	**3.60%**	**3.28%**	
Estimated Volume Increase (RY 2011)	-0.61%	4.53%	1.31%	Note 3
Estimated Revenue Change (RY 2011)	2.47%	8.29%	4.64%	
Calculation of Volume Adjustment:				
Gross Revenue from FS Schedules	$6,085,853.7	$3,633,381.6	$9,719,235.3	
Year to Date 7/1/09 to 2/28/10	62.62%	37.38%	100.00%	
Admissions/EIPA's YTD 2/28/10	458,254	273,587	731,841	
Admissions/EIPA's YTD 2/28/09	461,075	258,497	719,572	
Percent Change	-0.61%	5.84%	1.71%	
Fixed Cost Factor	15.00%	15.00%	15.00%	

Note 1: 15% of estimated volume change for RY 2010 over RY 2009

Note 2: Inpatient case mix is capped at 0.75% but outpatient CPV case mix has no limit per the MHA Proposal

Note 3: Estimated increase to revenue for volume change that will occur for RY 2011 over RY 2010

Explanatory Notes to the Tables and MHA Proposal: Staff notes that the MHA Proposal contains an adjustment for "forecasting error" of the Global Insight Market Basket. This forecasting error is based on deviations from actual final inflation over the past three years. Additionally, in their original submission, the MHA showed a combined Policy and Volume adjustment. For purposes of comparability, HSCRC staff has segregated these two components in the table above. Finally, MHA has proposed a 0.75% case mix limitation on inpatient Charge per Case (CPC) with no limitation on outpatient case mix. FY 2011 is expected to be the initial measurement year for the Commission's new Charge per Visit (CPV) methodology (the per-visit bundled payment system covering most hospital clinic, emergency room, and ambulatory surgery visits). Staff expects some case mix increase associated with the implementation of the CPV. Additionally, outpatient services not covered by the CPV are likely to generate increased revenues for the hospital. While the MHA is not proposing a "cap" on CPV case mix growth, in order to reflect what MHA has described as an "all-inclusive" proposal, staff has included its estimate of 1.0% case mix growth for outpatient case mix for FY 2011 (staff would note, however, that outpatient case mix growth could conceivably be greater than 1.0% in FY 2011. Thus, to reflect

the lack of restrictiveness of the MHA proposal relative to the two payer proposals, the staff is showing outpatient case mix growth of 1.25% under the MHA proposal).

MHA's Additional Adjustments: The MHA did not respond to the staff's request for recommended update magnitudes for specialty hospitals (chronic, private psychiatric, and other). Recently however, the MHA did present a proposal for scaling related to individual hospital performance on Reasonableness of Charges (ROC) position; Quality-based Reimbursement (QBR) and Maryland Hospital Acquired Conditions (MHACs).

The MHA supports scaling 10% of the annual payment update for each of the three comparison inidices: ROC, QBR, and MHACs provided that the based update is at least equal to inflation, and that the maximum amount a hospital could receive, or have reduced, in rates when all three scaling adjustments are applied is no greater than 0.25% of revenue. The MHA proposal provides the following example of how this proposed scaling would work. If the base update was 2.2%, 0.22% would be scaled for comparison of hospital performance on the ROC, QBR, and MHACs. Because most hospitals' rankings will be different on each comparison, it is unlikely that any hospital would receive a combined 0.66% rate increment or decrement. To prevent such large adjustments, MHA proposes a 0.25% cap on both the maximum increase and reduction under the combined scaling.

For the ROC, the MHA supports scaling in large bands where a group of like-ranked hospitals receive the same payment increment or decrement, and the hospitals close to the median receive no adjustment.

Other MHA Observations: In developing the hospitals' proposal, the MHA thought it important to differentiate between the approved HSCRC Update for FY 2010 and what Maryland hospitals actually will receive in the way of increased revenue for the year. The Board of Public Works (BPW) required Medicaid hospital payment reductions of over $27 million during the course of FY 2010 (this figure was later reduce to $17 million net for FY 2010 based on later Commission action regarding the sharing of the FY 2010 Medicaid-related cuts). These amounts were realized through a direct remittance by hospitals of these funds to the Department of Health and Mental Hygiene (DHMH) in lieu of actual reductions to Medicaid payment. Additionally, the MHA wished to highlight the prospective adjustment to hospital Uncompensated Care (UC) provisions in FY 2010 related to recent Medicaid eligibility expansions. These adjustments reduced hospital UC provisions by a collective 0.75% for "averted uncompensated care" resulting from the expected increases in individuals becoming insured through the Medicaid program.[4] The MHA believes that these two adjustments to hospital revenues resulted in "near-zero growth in reimbursement rates so far for this year."

Payer Representatives' Proposals

Originally, representatives from United Health Care, CareFirst & Kaiser Permanente, Amerigroup, DHMH, and the State Health Employee Benefit Program collectively submitted both a one-year and a three-year proposal (the Payer Proposal). As a result of the passage of national health reform legislation and other events, the payer representatives recently decided to submit a one-year rate update proposal only. CareFirst/Kaiser and United Health Care each now has its own one-year proposal. The detailed provisions of the proposals are also discussed in the section that follows.

Description of the Payers' One-Year Proposals: As noted, both CareFirst/Kaiser and United Health Care decided to submit a one-year update proposal only because of growing uncertainty about the impact of recent federal and State legislation on payment levels and the financial condition of hospitals.

[4] The Commission has agreed that these reductions to hospital Uncompensated Care provisions will ultimately be reconciled with data from the Medicaid program, and thus these adjustments will not constitute shortfalls in revenue for the hospital system.

United Health Care One-Year Proposal: At the March Commission meeting, representatives from United Health Care indicated their willingness to modify their original one-year proposal to be at least equal to last year's approved update of 1.77%. This proposal was later modified following the Commission's decision to change the allocation of the funding burden between hospitals and payers (from 50/50 to 30/70) associated with the $123 million in required Medicaid savings for FY2011. The modified United proposal results in a reduction of the 1.77% update to 1.58% accounting for the additional assessment amounts now being imposed on the payers as a result of the Commission's April 6th decision. United's current proposal is shown in **Table 13.**

Table 13
Proposed Update Factor (United Health Care)
Rate Year Ending June 30, 2011
One Year Arrangement

	Inpatient	Outpatient	Total	
Global Insight's - 1st Qtr Book for RY 6/30/11	2.29%	2.29%	2.29%	
Inflation Forecast Error	0.38%	0.38%	0.38%	
Subtotal Inflation Allowance	2.67%	2.67%	2.67%	
Policy Adjustment (Improvement to US)	-1.87%	-1.87%	-1.87%	
Subtotal Update	0.80%	0.80%	0.80%	
Slippage For RY 2010	0.03%	0.03%	0.03%	
Rate Update Provided	0.83%	0.83%	0.83%	
Volume Adjustment (RY 2010 over RY 2009)	-0.26%	-0.26%	-0.26%	Note 1
CMI Adjustment (Lower of Actual or Limit)	1.00%	1.00%	1.00%	Note 2
Full Update Provided	**1.58%**	**1.58%**	**1.58%**	
Estimated Volume Increase (RY 2011)	-0.61%	4.79%	1.41%	Note 3

Calculation of Volume Adjustment:			
Estimated Revenue Change (RY 2011)	0.96%	6.44%	3.01%
Gross Revenue from FS Schedules	$6,085,853.7	$3,633,381.6	$9,719,235.3
Year to Date 7/1/09 to 2/28/10	62.62%	37.38%	100.00%
Admissions/EIPA's YTD 2/28/10	458,254	273,587	731,841
Admissions/EIPA's YTD 2/28/09	461,075	258,497	719,572
Percent Change	-0.61%	5.84%	1.71%
Fixed Cost Factor	15.00%	15.00%	15.00%

Note 1: 15% of estimated volume change for RY 2010 over RY 2009

Note 2: Payor proposal allows for additional growth in CMI if volume does not grow.
Case Mix allowance for Inpatient and Outpatient are also caps on case mix growth

Note 3: Estimated increase to revenue for volume change that will occur for RY 2011 over RY 2010

Gross Revenue from FS Schedules	Inpatient	Outpatient	Total
Year to Date 7/1/08 to 2/28/09	$5,984,838.6	$3,355,337.0	$9,340,175.7
	64.08%	35.92%	100.00%

CareFirst/Kaiser Permanente One-Year Proposal: During the April 16 meeting of the Payment Work Group, the representative from CareFirst/Kaiser Permanente proposed an update that he believed would result in no erosion to the Medicare waiver cushion for FY 2011. This proposal took into consideration all factors that are projected to increase hospital rates in FY 2011, including the additional 0.64% assessment relative to the funding of the Medicaid savings requirements and anticipated increases in hospital "markups" (largely due to projected increases in hospital Uncompensated Care provisions in FY 2011). Payers will pay these extra amounts, and thus Medicare as one payer will see its payment levels increased as well. Thus, according to this

representative, these payment increases must be taken into consideration when assessing the impact on Maryland' Medicare waiver performance.

Subsequent to staff's presentation of the likely technical adjustments (and resulting improvements) to the Medicare waiver cushion, CareFirst requested some additional time so that it could assess its proposal in light of the expected improvement in the State's Medicare waiver cushion. A revised CareFirst Update proposal is expected by the May 5 Commission meeting. The following sections discuss other aspects of the CareFirst proposal.

Scaling for ROC, QBR, and MHACs: The Payers collectively voiced belief that the adjustments for quality measures (including the QBR and MHACs), should be revenue neutral, but yet include incentives that will influence future behavior. They also believe more emphasis should be given to Potentially Preventable Admissions (PPAs), including readmissions (which we believe will have a greater quality and financial impact), and propose a pool of 0.5% for the QBR, 0.5% for the MHAC adjustment, and 1.0% for the Potentially Preventable Readmission program in 2011, all increasing by 0.5% a year in 2012 and 2013.[5]

With regard to ROC scaling, the collective Payer proposal is as follows:

1. The level of scaling should be driven by the ROC than by the update factor. Scaling is to relate to whether a hospital's charges are high or low, and that has nothing to do with the update factor.

2. Scaling should be revenue neutral.

3. Scaling should aggressively address the "stuck hospital" issue. That is, hospitals with very low rates should be approved for significant positive scaling.[6]

4. Hospitals should not be entitled to both scaling and a full rate review.

5. Two hospitals should be exempt from scaling (McCready Hospital because it is a TPR hospital that is above the ROC average, and Bon Secours because of financial issues). [7]

6. The Payers propose the scaling be accomplished in two steps: Step one – the hospitals subject to scaling gain or lose 20% of the difference in their ROC position and 0% (peer average). Step two – staff makes a revenue neutral adjustment by increasing or decreasing the adjustment for high-charging hospitals.

7. The Payers recognize that in conjunction with their update proposal, some very high charge hospitals will have their charges reduced in the first year. This, they believe, is entirely consistent with the Commission's mission and the payers' conception of appropriately achieving affordable hospital care. It is also constant with the payers' original goal of reaching a position of 6.1% below the US in terms of cost per EIPA.

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[5] While the HSCRC is currently developing a methodology for linking the performance on potentially preventable re-admissions (PPRs) to payment incentives, this methodology was not contemplated to be associated with the FY2011 payment update. Staff, however, intends to present a recommendation linking PPR performance by hospital to payment incentives in the FY 2012 Update.

[6] Note: the Staff's Recommendations for the ROC/ICC this year is to forestall the implementation of "Spenddown" agreements (negotiated rate reductions to high charge hospitals over 2-3 years) in lieu of more "aggressive" scaling (that is apply larger than historical magnitudes of scaling revenue – based on relative ROC position). In the absence of aggressive scaling, the staff will institute the HSCRC's long-standing policy of negotiating Spenddowns for high charge hospitals.

[7] The Payers note that the HSCRC may wish to look at these two facilities separately. Bon Secours is the only non-teaching Baltimore city hospital and may be disadvantaged by being in a group with city teaching facilities. The Payers do not favor a policy that could bankrupt Bon Secours and divert patients to higher charge hospitals that only "appear" lower on the ROC because of their teaching adjustment.

8. Note that aggressive scaling would replace Spenddowns. In a typical spenddown, a high cost hospital's ROC position is reduced to the statewide average in three years. The Payer proposal moves all hospitals to approximately 50% of their current ROC position in three years (0.8 x 0.8 x 0.8 = 0.512).

Explanatory Notes to the Payers' Proposals: The Payers have also proposed a 1.0% case mix limitation on inpatient Charge per Case (CPC), and a 1.0% limitation on outpatient case mix growth based on the CPV methodology. Additionally, the Payers reflect 0.03% "slippage" under their outpatient proposal to account for expected increases in volume and revenues associated with outpatient services not covered by the HSCRC's CPV methodology. The Payers believe it is important that the Commission implement the CPV on July 1, 2010 to include, at least, Emergency Department, Clinic and Ambulatory Surgery services and add radiation therapy and pharmico/chemotherapy services to the CPV as quickly as possible.

Adjustments to Volume Adjustment and Case Mix and Volume: The CareFirst proposal also includes a volume adjustment per Commission policy of 85% in FY 2011. The proposal also describes the method for calculating allowed case mix change and recommends some allowance for higher than 1.0% case mix in the event that hospitals reduce admissions and overall volume in the system. Case mix would be set at 1% each year; however, if reported case mix is less than 1%, the following year's Update will be larger than otherwise. If overall volume falls, as measured by case mix adjusted EIPAs, the hospitals should get an additional 0.25% for case mix, and the proposed targets would be adjusted so that additional dollars would be added to the system. The same would be true for any overall positive adjustment under the variable cost adjustment. The Payers also indicate their concern over the reporting of case mix data and suggest that the HSCRC add money to finance a competitive bid for an independent audit of case mix reporting.

Waiver "Trip-Wire": The Payers collectively proposed a "waiver trip-wire" that is based on the HSCRC staff's forecasted waiver position after agreed upon technical corrections are accomplished. Under this structure, Commission action to reduce rates would occur if the forecasted waiver cushion were projected to be less than 7%. Staff would provide a revised waiver forecast through 6/30/13 each quarter after a new waiver letter is received.

Recommended Rate Review of Chronic Care Hospitals: In response to the staff request to propose an Update for specialty hospitals, the Payers expressed reluctance to suggest a precise Update factor in the absence of data on case mix, payer mix, volume change, and profitability of these hospitals. The Payers did, however, indicate concern regarding the level of approved rates at the chronic hospitals. They recommended that the HSCRC undertake a comprehensive review of chronic hospital rates relative to the rates of comparable services at non-chronic hospital providers (particularly for Vent and Rehabilitation patients treated at Skilled Nursing Facilities) and the appropriateness of admissions resulting from transfers between acute and chronic hospitals. Finally, the Payers expressed concern regarding the "weaning" rates of vent patients in both acute and chronic facilities. This also is a recommended topic of review for the HSCRC.

Recommendation to Identify and Pursue "Game Changers": The Payers collectively believe that both hospital and overall health care costs are much too high. While the moderation of growth rates may be helpful in stemming this tide, what is needed, according to the Payers, are so-called "Game Changers." Accordingly, the Payers recommend that during the three year rate cycle, a standing group of hospital and payer representatives and HSCRC Staff should be meeting regularly to identify and recommend the implementation of Game Changers, that is, initiatives that will materially reduce the cost of providing quality health care, by changing the way services are delivered by volume, by location, by personnel, by time, by modality, etc. Moreover, the payers are fully committed to sharing any resulting gains with the hospitals. Part of this strategy may well be encouraging hospitals, or health systems, to adopt the Total Patient Revenue (TPR) constraint.

Payer and Hospital Proposals Compared

Payer and Hospital Proposals

Table 14 summarizes the original hospital and payer proposals for an update to both inpatient and outpatient hospital rates for FY 2011. The table above shows the relatively wide range between payer and hospital rate proposals relating to a one-year rate update covering just FY 2011 (an overall 1.94% or roughly $252 million difference between the CareFirst and MHA proposals).

Table 14
Detailed Comparison of MHA and Payer One-Year Proposals and First Year of Payer One-Year Proposals

	CareFirst (1) Total	United Total	MHA Total
Global Insight's - 1st Qtr Book for RY 6/30/11	*2.29%*	2.29%	2.29%
Inflation Forecast Error	*0.00%*	0.38%	0.38%
Subtotal Inflation Allowance	*2.29%*	2.67%	2.67%
Policy Adjustment (Improvement to US)	*-1.72%*	-1.87%	-0.10%
Subtotal Update	*0.57%*	0.80%	2.57%
Slippage For RY 2010	*0.03%*	0.03%	0.03%
Rate Update Provided	*0.60%*	0.83%	2.60%
Volume Adjustment (RY 2010 over RY 2009)	*-0.26%*	-0.26%	-0.26%
CMI Adjustment (Lower of Actual or Limit)	*1.00%*	1.00%	0.94%
Full Update Provided	*1.35%*	1.58%	3.28%
Estimated Volume Increase (RY 2011)	*1.41%*	1.41%	1.31%
Overall expected increase in Hospital Revenue	*2.75%*	2.98%	4.64%
Difference between MHA and United			
Difference between MHA and Proposal		1.94%	1.71%
Approximate difference in Dollar Terms		$251.8 million	$221.9 million

(1) Note: this table reflects the CareFirst proposal presented to the April 16 Payment Work Group. CareFirst requested additional time to consider potential revisions to this proposal based on Staff's recent update on likely technical adjustments to the State's Medicare waiver test cushion.

Construction of Alternative Options

Recently the Chairman of the HSCRC requested that staff develop a set of three alternative FY 2011 update options for consideration by the Commission. The staff was requested to provide scenarios that resulted in: 1) erosion in the Medicare waiver cushion; 2) no erosion in the waiver cushion; and 3) improvement in the waiver cushion. **Table 15** provides a summary of these three options.

Table 15
Three Alternative Options Developed by HSCRC Staff

Three Options as Requested by HSCRC Chairman

Potential HSCRC Update FY11	Option 1 - Erosion	Option 2 - Steady	Option 3 - Improvement
Line			
1 Market Basket	2.29%	2.29%	2.29%
2 Forecast Error	NA	NA	NA
3 Subtotal	2.29%	2.29%	2.29%
4 **Productivity/Waiver adjustment (1)**	**-0.90%**	**-2.52%**	**-3.06%**
5 Subtotal	1.39%	-0.23%	-0.77%
6 Slippage (2)	0.03%	0.03%	0.03%
7 Subtotal	1.42%	-0.20%	-0.74%
8 Case Mix Cap	1.00%	1.00%	1.00%
9 Subtotal	2.42%	0.80%	0.26%
10 Volume Adjustment (3)	-0.26%	-0.26%	-0.26%
11 **Total Rate Update**	**2.16%**	**0.54%**	**0.00%**
12 Markup Change (4)	0.50%	0.50%	0.50%
13 **All - Inclusive**	**2.66%**	**1.04%**	**0.50%**
14 Medicaid Payment Chg (5)	2.82%	1.10%	0.53%
15 Medicaid Budget Update (6)	2.82%	2.82%	2.82%
16 Medicaid Net savings/dissavings	0.00% $0 (6a)	1.72% $17,176,000 (6b)	2.29% $22,900,000 (6c)
17 **One-Time adjustment (7)**	**0.64%**	**0.55%**	**0.52%**
18 Medicare Growth (8) **91.00%**	2.42%	0.95%	0.46%

Potential Medicare Update	Proposed Rule	MedPac	Proposed Rule	MedPac	Proposed Rule	MedPac
19 Market Basket	2.29%	2.29%	2.29%	2.29%	2.29%	2.29%
20 MB reduction	-0.25%	-0.25%	-0.25%	-0.25%	-0.25%	-0.25%
21 Subtotal	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%
22 Projected CM	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
23 Subtotal	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%
24 Outlier Payment Increase	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%
25 Subtotal	3.44%	3.44%	3.44%	3.44%	3.44%	3.44%
26 Coding Offset	-2.90%	-1.93%	-2.90%	-1.93%	-2.90%	-1.93%
27 Total increase in payments	0.54%	1.51%	0.54%	1.51%	0.54%	1.51%
28 Maryland Medicare Increase (line 18)	2.42%	2.42%	0.95%	0.95%	0.46%	0.46%
29 Waiver Erosion	-1.88%	-0.91%	-0.41%	0.56%	0.08%	1.06%
30 One day LOS case impast (9)	-0.56%	-0.56%	-0.56%	-0.56%	-0.56%	-0.56%
31 **Total Waiver Erosion**	**-2.44%** Erosion	**-1.47%** Erosion	**-0.97%** Erosion	**0.00%** Steady	**-0.48%** Erosion	**0.50%** Improvement
32 Projected June 2010 Cushion	13.43%	13.43%	13.43%	13.43%	13.43%	13.43%
33 **Projected June 2011 Cushion**	**10.99%**	**11.96%**	**12.46%**	**13.43%**	**12.96%**	**13.93%**
34 Projected June 2011 Cushion after expected "1-time" assessment	10.35%	11.32%	11.82%	12.88%	12.32%	13.41%

Notes:

(1) Productivity/waiver adjustment necessary to achieve policy objective
(2) Slippage is positive - accounting for full rate reviews in FY 2010 and volume adjustment -0.30% being larger than actual volume change -0.22%
(3) Projected volume adjustment for FY 2011 based on FY 2010 YTD volume over FY 2009
(4) Preliminary estimate of full change in Markup due to UC adjustments in FY 2011 (expect to have final number by June)
(5) Estimated Medicaid payment update (assuming that Medicaid payments increase at 106% of all-payer change)
(6) $123 million assessment/remittance predicated on all inclusive update of 2.82% to Medicaid (options 1-3 result in either no impact to funding of $123 million or reductions to the $123 million in required Medicaid savings - see notes 6a, 6b and 6c)
(7) Assessment on rates to generate 70% of $123 million (plus fund $5 million from 2010) is considered a one-time adjustment to rates - to be reversed in a future year
(8) Medicare Growth - (prior to One Day Stay reductions) expected to be 91% of all payer - note however, this relationship appears to be changing substantially over the past 6 quarters
(9) A 1% decrease in Medicare One Day Stay Cases results in an approximate 0.56% erosion in the waiver test

Option 1: Establishes an update that will essentially cause a net payment increase to Medicaid of precisely 2.82% - the level budgeted by Medicaid and the DBM that was the basis for the $123 million of required Medicaid savings. An update above this level will require that hospitals and payers share 30/70% in assessments/remittances that will exceed $123 million in total. **Option 2**: Establishes an update that will result in no erosion of the Medicare waiver cushion in FY 2011under the assumption that the final Medicare Update rule incorporates one-time coding offsets per the Medpac recommendation to Congress of March 2010 (a 1.93% offset instead of the 2.9% offset in the CMS proposed rule). This option would result in an update that is less than the 2.82% budgeted DBM Update and thus would reduce the amount of Medicaid shortfalls that must be funded through the system of assessments and remittances (by over $17 million - bringing the $123 million down to $106 million). **Option 3:** Establishes an Update that will improve the waiver cushion by 0.5% in FY 2011.

Options 2 and 3 do not consider the impact of the assessment on rates to fund the $123 million as having a long-term negative impact on the waiver cushion. These assessments are to be one-time in nature. While the State may impose additional assessments in FY 2012 and FY 2013, the staff believes these assessments will eventually be removed, and any negative impact on our waiver cushion will be thus reversed.

As noted above, staff is recommending the application of an aggressive and continuous scaling of the ROC results. The precise magnitude of that scaling has not yet been specified. Staff will continue to discuss the issue of ROC scaling with both hospital and payer representatives during further meetings of the Payment Work Group during the month of May.

Table 16 summarizes the three Payer/MHA proposals and the three Staff Options as presented above.

Table 16
Comparison of Staff Options and Payer/MHA Proposals

	Improvement Staff Option 3	Steady Staff Option 2	*CareFirst (1) Total*	United Total	Erosion Peg Medicaid" Staff Option 1	MHA Total
Global Insight's - 1st Qtr Book for RY 6/30/11	2.29%	2.29%	*2.29%*	2.29%	2.29%	2.29%
Inflation Forecast Error	0.00%	0.00%	*0.00%*	0.38%	0.00%	0.38%
Subtotal Inflation Allowance	2.29%	2.29%	*2.29%*	2.67%	2.29%	2.67%
Policy Adjustment (Improvement to US)	-3.06%	-2.52%	*-1.72%*	-1.87%	-0.90%	-0.10%
Subtotal Update	-0.77%	-0.23%	*0.57%*	0.80%	1.39%	2.57%
Slippage For RY 2010	0.03%	0.03%	*0.03%*	0.03%	0.03%	0.03%
Rate Update Provided	-0.74%	-0.20%	*0.60%*	0.83%	1.42%	2.60%
Volume Adjustment (RY 2010 over RY 2009)	-0.26%	-0.26%	*-0.26%*	-0.26%	-0.26%	-0.26%
CMI Adjustment (Lower of Actual or Limit)	1.00%	1.00%	*1.00%*	1.00%	1.00%	0.94%
Full Update Provided	0.00%	0.54%	*1.35%*	1.58%	2.16%	3.28%
Estimated Volume Increase (RY 2011)	1.41%	1.41%	*1.41%*	1.41%	1.41%	1.31%
Overall expected increase in Hospital Revenue	1.41%	1.95%	*2.75%*	2.98%	3.57%	4.64%
Difference between MHA and United						
Difference between MHA and Proposal	3.28%	2.74%	1.94%	1.71%	1.12%	
Approximate value in Dollar Terms	$426.5 million	$356.3 million	$251.8 million	$221.9 million	$145.7 million	

(1) Note: this table reflects the CareFirst proposal presented to the April 16 Payment Work Group. CareFirst requested additional time to consider a potential revision to this proposal based on Staff's recent update on likely technical adjustments to the State's Medicare waiver test cushion.

Staff Recommendations

This document represents the staff's attempt to provide the current range of proposals and environmental considerations that will weigh on the Commission as it works toward a final decision on the Update Factor for hospital rates in FY 2011. It is being provided as a draft recommendation in response to the Chairman's request to provide a range of options and salient decision-making factors for the Commission. It is intended to provide the basis for current discussion and deliberation at the Commission level and further discussion at the Payment Work Group level.

The Payment Work Group will continue to meet during the next month, and staff expects to present an updated and final recommendation to the Commission at the June 9th public meeting.

Draft Staff Recommendation on Rate Methods and Financial Incentives relating to Reducing Maryland Hospital Preventable Readmissions (MHPRs)

Health Services Cost Review Commission

May 5, 2010

This document represents a revised draft recommendation to be presented to the Commission on May 5, 2010. Comments on this recommendation should be directed to Robert Murray, Executive Director of the HSCRC, by Tuesday, June 1, 2010.

Background

Inpatient hospitalizations are one of the most costly categories of health care costs in the United States accounting for between 20-25% percent of total health care expenditures.[1] The Institute of Medicine has estimated that approximately 3% of US hospitalizations result in adverse events, and almost 100,000 patients die annually due to medical errors.[2] Reducing rates of hospital readmissions has, thus, attracted considerable attention from policy-makers as a way of improving quality and reducing costs.

Until recently, there has been limited information on the frequency and pattern of hospital readmissions and little ability to appropriately link hospital performance to payment in a responsible and meaningful way. Also, standard prospective payment systems, such as Medicare's Inpatient Prospective Payment System (IPPS) or Maryland's Charge per Case system (CPC) fail to provide incentives for hospitals to appropriately control the frequency of readmissions. Although the HSCRC incorporated a volume-related payment adjustment in 2008, there are few financial incentives for hospitals to invest in the necessary infrastructure to reduce unnecessary readmissions by reducing medical errors during the inpatient stay (that may lead to a repeat admission) or more actively cooperate with other providers to improve coordination of care post discharge.

Cost Implications of Readmissions and Wide Range of Readmission Performance

In the Medicare program, inpatient care accounts for 37 percent of spending, [3] and readmissions contribute significantly to that cost: 18 percent of all Medicare patients discharged from the hospital have a readmission within 30 days of discharge, accounting for $15 billion in spending.[4]

In Maryland, the rate of readmissions is based on analysis of 2007 readmission data using the Potentially Preventable Readmissions (PPR) methodology:

- The top performing hospitals had risk/severity adjusted 15-day rates of readmission just below 4%
- The bottom performing hospitals had risk/severity adjusted 15-day rates of readmission just above 8%
- The 15-day readmission rate overall was 6.74%
- The 30-day readmission rate overall was 9.81%
- For readmissions in 15 days, there were $430.4 million (5.3%) estimated associated charges
- For readmissions in 30 days, there were $656.9 million (8.0%) estimated associated charges

[1] Catlin, A. et al. "National Health Spending in 2006: A Year of Change for Prescription Drugs," *Health Affairs,* January/February 2008, Vol. 27, No. 1, pp. 14-29.
[2] To Err is Human, The Institute of Medicine, November, 1999.
[3] Medicare Payment Advisory Commission. 2006. Healthcare Spending and the Medicare Program: A Data Book. Washington DC: Medicare Payment Advisory Commission, p.9.
[4] Medicare Payment Advisory Commission. 2007. Report to the Congress: *Promoting Greater Efficiency in Medicare*. Washington, DC: Medicare Payment Advisory Commission, p. 103.

According to a recent national study on readmissions of Medicare patients, Maryland appeared to have the second highest readmission rate (22%) of any jurisdiction in the U.S., with the District of Columbia at 23.2% (see **Appendix I** for a copy of this article and analysis).[5]

Factors Contributing to Unnecessary Readmissions

Multiple factors contribute to the high level of hospital readmissions in the U.S. generally and in Maryland in particular. They may result from poor quality care or from poor transitions between different providers and care settings. Such readmissions may occur if patients are discharged from hospitals or other health care settings prematurely; if they are discharged to inappropriate settings; or if they do not receive adequate information or resources to ensure a continued progression of services. System factors, such as poorly coordinated care and incomplete communication and information exchange between inpatient and community-based providers, may also lead to unplanned readmissions.

Hospital readmissions may also adversely impact payer and provider costs and patient morale. Some hypothesized in the 1980s that Medicare's implementation of IPPS would encourage physicians to discharge patients "sicker and quicker." That did not turn out to be a significant problem for the quality of inpatient care; yet, patients were discharged earlier, which may theoretically increase the risk of readmissions, resulting in greater costs to payers. Moreover, preliminary analysis suggests that the majority of readmissions are for medical services rather than surgical procedures, suggesting that hospital readmissions may not be profitable to hospitals.[6]

Reducing readmissions, then, represents a unique opportunity for policymakers, payers, and providers to reduce health care costs while increasing the quality of patient care. Identifying best practices and policy levers to reduce avoidable readmissions would likely improve quality, reduce unnecessary health care utilization and costs, promote patient-centered care, and increase value in the health care system. Moreover, as some individuals are at greater risk of readmissions as a result of individual characteristics, care coordination efforts that reduce hospital readmissions may help eliminate disparities in health care.

Clearly, there is an urgent need at both a state and national level to develop a set of payment reforms that can provide strong financial incentives for hospitals to reduce their rates of Potentially Preventable Readmissions (PPRs).[7] The increasing focus in linking payment and quality (i.e., the

[5] Jenks SF, Williams MV, Coleman EA, Rehospitalizations among Patients in the Medicare Fee-for-Service Program. *New England Journal of Medicine*. 360:1418-28, April 2, 2009.
[6] Interviews with Stephen F. Jencks, M.D., M.P.H., Mark V. Williams, M.D. and Eric A. Coleman, M.D., M.P.H. May 2005.
[7] Potentially Preventable Readmissions (PPRs) represent a categorical model developed by 3M Health Information Systems which categorizes and identifies return hospitalizations that may have resulted from the process of care and treatment or lack of post admission follow-up rather than unrelated events that occur post discharge.

overall value of the care provided) is motivated by the dramatic escalation in health care costs and the past inability of policymakers to measure and compare health outcomes.

If readmission rates are to serve as an overall measure of both quality and cost, it is necessary to apply an analytic approach that focuses on those readmissions that could have potentially been prevented. As the nation's only "All-Payer" rate setting system, and with its current use of the highly sophisticated All-Payer-Refined Diagnostic Related Grouping risk-adjustment and case mix classification system (APR-DRGs), the Maryland hospital payment system is uniquely positioned to make use of these readmission measurement systems and link relative hospital performance to financial incentives in a meaningful and productive way.

The following recommendation is intended to describe an approach for incorporating such a system of incentives into the Maryland hospital "All-Payer" payment system beginning in FY 2011.

Using Payment Incentives to Reduce Unnecessary Readmissions in Maryland

Basic Principles for the Establishment of Payment Incentives

In developing its method for the incorporation of payment incentives for hospitals to reduce unnecessary readmissions, the HSCRC first identified a set of basic principles to help guide the Commission's overall effort.

1) Fairness in Measurement: First, there should be a focus on the development of appropriate adjustment factors to take into account systematic and less-controllable issues and factors that influence readmission rates that all hospitals may experience. Factors that were found to significantly influence readmission rates include age, the presence of mental health and substance abuse secondary diagnoses, disproportionate share effects (Medicaid status), and hospital location (hospitals near the state border will naturally have a higher proportion of their patients readmitted to hospitals outside of Maryland).

2) Broad Level of Applicability and Fairness in the Application of Rewards and Penalties: As the HSCRC learned during the course of development of its Maryland Hospital Acquired Conditions (MHACs) initiative, basing payment rewards and penalties on a hospital's relative rate of performance avoids problems generated by a focus on individual cases. Since readmissions are often the result of problems in the care processes relating to coordination and communication between hospitals and post-discharge care providers, a focus on systematic differences in readmission rates across hospitals (comparison of actual readmission rates relative to expected readmission rates by hospital) is most appropriate and allows for a much broader level of application.

3) Prospective Application: During the process of the MHAC development, the HSCRC also realized the importance of prospective application of payment incentive programs linked to quality

improvement. Individual hospital PPR rates should be compared to expected PPR rates (risk adjusted), and established targets should be set from a previous year so they are known in advance.

4) Emphasis on Infrastructure Development to Assist Hospitals in Reducing PPRs: A substantial effort should be made to facilitate hospitals' development of infrastructure and knowledge regarding best PPR-reducing mechanisms/strategies. The HSCRC and other entities (the Hospital Association - as demonstrated in states like Florida) can play a vital role in providing infrastructure support to hospitals to help them identify and implement best practices associated with readmission reduction.

5) Appropriate Level of Financial Incentive: Another important realization from the MHAC policy development process was the need to arrive at an appropriate level of financial risk for providers when establishing the link between provider payment and performance. For MHACs, the Commission decided to place hospitals under only a moderate level of risk in the early stages of the initiative. This was because the HSCRC wanted to give hospitals sufficient time to understand the methodology and make use of the available data tools to analyze their performance and put in place the clinical and operational changes necessary to improve performance.

The same arguments also apply to the introduction of payment incentives related to reducing PPRs. However, unlike MHACs, the incentives for reducing readmissions must take into consideration the significant counter-incentives the hospital will face in lost revenue from fewer readmissions. Eventually, the amount of revenue at risk for reducing PPRs must be sufficiently large to counterbalance loss of revenue due to reduced readmissions.

Maryland Uniquely Positioned to Link Payment Incentives to Reduced Readmissions

Given the HSCRC's use of and experience with the APR-DRGs mechanism for both risk adjustment and revenue constraint, it is natural that the HSCRC might wish to consider the use of a complementary tool (Potentially Preventable Readmissions) as the basis for linking payment to performance related to the reduction of Maryland hospital readmissions. APR-DRGs and PPRs are products of 3M Health Information Systems and have been used in a number of other jurisdictions to measure and monitor rates of preventable hospital readmissions rates.

The following sections briefly identify and define the key components and steps involved in the application of the PPR methodology to measure relative hospital performance on their ability to reduce preventable readmissions.

Potentially Preventable Readmissions and PPR Logic

A **Potentially Preventable Readmission** is a readmission (return visit to a hospital within a specified period of time) that is clinically-related to an **Initial Hospital Admission**. For readmissions to be

"**Clinically-Related**" to an initial admission, it is necessary that the underlying reason for readmission be plausibly related to the care rendered during or immediately following a prior hospital admission.

A clinically-related readmission may have resulted from the process of care and treatment during the prior admission (e.g., readmission for a surgical wound infection) or from a lack of post admission follow up (lack of follow-up arrangements with a primary care physician) rather than from unrelated events that occurred after the prior admission (broken leg due to a car accident) within a specified readmission window.

The **Readmission Window** (sometimes also referred to as the Readmission Interval) is the maximum number of days allowed between the discharge date of a prior admission and the admit date of a subsequent admission in order for the subsequent admission to be a readmission. Readmission analyses have traditionally focused on 30, 15, and 7 day readmission windows.

The Initial Admission is an admission that is followed by a clinically-related readmission within the specified readmission window. Subsequent readmissions relate back to the care rendered during or following the Initial Admission. The Initial Admission initiates a "**Readmission Chain**."

Readmission Chains are a sequence of PPRs that are all clinically-related to the Initial Admission. A readmission chain may contain an Initial Admission and only one PPR, which is the most common situation, or may contain multiple PPRs following the Initial Admission. In addition to the "clinically-related" PPR APR-DRGs matrix, all readmissions with a principal diagnosis of trauma are considered not potentially preventable.

Use of APR-DRGs

Under this approach, APR-DRGs can be used as the basis for establishing the clinic relationship between the Initial Admission and the Readmission. In developing the PPR logic, a matrix was created in which there were 314 rows representing the possible base APR-DRGs of the Initial Admission, and 314 columns representing the base APR-DRGs of the readmission. Each cell in the matrix then represented a unique combination of a specific type of Initial Admission and readmission. Clinical panels applied criteria for clinical relevance and preventability to the combination of base APR-DRGs and each cell. The end result was that each of the 98,596 cells contain a specification of whether the combination of the base APR-DRGs for the Initial Admission and for the readmission were clinically-related, and, therefore, potentially preventable. This matrix operationalized the definition of "clinically-related" in the PPR logic.

Exclusions and Non-Events

There are certain circumstances in which a readmission cannot be considered potentially preventable. Some types of admissions require follow-up care that is intrinsically clinically-complex and extensive, and for which preventability is difficult to assess. For these reasons, admissions for major or metastatic malignancies, multiple trauma, and burns are not considered preventable and are globally excluded as an Initial Admission or readmission. In addition, neonatal and obstetrical

admissions have unique attributes and only rarely lead to readmission. As a consequence, readmissions following an Initial Admission for neonatal or obstetrical care are also globally excluded.

A second type of global exclusion relates to the discharge status of the patient in the Initial Admission. A hospitalization with a discharge status of "left against medical advice" is excluded as either an Initial Admission or readmission because under these circumstances, the hospital has limited influence on the care rendered to the patient. All types of globally-excluded admissions are classified as Excluded Admissions.

The following admissions are classified as Non-events: admissions to non-acute care facilities; Admissions to an acute care hospital for patients assigned to the base APR-DRG for rehabilitation, aftercare, and convalescence; Same-day transfers to an acute care hospital for non-acute care (e.g., hospice care).

Readmission Rates

The 3M PPR Grouper Software classifies each hospital admission as a PPR, Initial Admission, Transfer Admission, Non-event, Excluded Admission, or an Only Admission. The output from the PPR Grouper software can be used to compute PPR rates by computing the ratio of the number of PPR chains divided by the sum of admissions classified as an Initial Admission or an Only Admission.

Non-events, Transfer Admissions, Only Admissions that died, and Excluded Admissions are ignored in the computation of a PPR rate. PPR rates can be computed for readmission to any hospital or can be limited to readmissions to the same hospital only.

Since a hospital PPR rate can be influenced by a hospital's mix of patient types and patient severity of illness during the Initial Admission, any comparison of PPR rates must be adjusted for case mix and severity of illness. A risk adjustment system such as APR-DRGs is necessary for proper comparisons of readmission rates. As discussed, higher than expected readmission rates can be an indicator of quality of care problems during the initial hospital stay or of the coordination of care between inpatient and outpatient settings.

Summary of PPR Logic

A readmission that is clinically-related to the prior Initial Admission or clinically-related to the Initial Admission in a readmission chain is a Potentially Preventable Readmission. A higher than expected rate of PPRs means that the readmissions could reasonably have been prevented through any of the following:

1) provision of quality care in the initial hospitalization;

2) adequate discharge planning;

3) adequate post discharge follow-up; and

4) coordination between the inpatient and outpatient health care team.

The end result of the application of the PPR logic is the identification of the subset of Initial Admissions that were followed by PPRs. Admissions that are at risk for having a readmission but were not followed by a subsequent readmission (such as Only Admissions) are also identified by the logic. The identification of Initial Admissions, PPRs, and at-risk Only Admissions allows meaningful PPR rates to be computed. A description of the PPR logic with definition of terms and concepts is provided in **Appendix II** to this recommendation.

Necessary Adjustments to PPR Rates

As discussed, staff is recommending the implementation of a series of adjustments for variations in the rate of potentially preventable readmissions among hospitals. The rate of readmissions would be calculated using the PPR software developed by 3M, with additional adjustments that are described in this section.

Adjustments would be made for differences in age, mental health status, and Medicaid status, which have been found to be substantially correlated with the case mix adjusted readmission rate. Finally readmission rates should also be made to reflect readmissions from Maryland hospitals to facilities outside of the State. This latter adjustment is necessary to account fairly for the natural outmigration of patients from Maryland hospitals located near the Maryland border. Failure to adjust for this outmigration would unfairly advantage Maryland hospitals in the Metropolitan DC area and other border areas of the State.

The following sections discuss the main issues encountered in the establishment of these necessary adjustments and allowances.

Evaluating Readmissions to the Same Hospital or All Hospitals?

The first question that was addressed was whether to focus on readmissions to the same hospital that treated the initial admission or to evaluate readmissions to all hospitals. Using only readmissions to the same hospital would capture most of the readmissions, but proved to be less satisfactory because it would not capture patients who were so dissatisfied with the initial treatment that they decided to go to a different hospital. Using admissions to all hospitals is clearly a more comprehensive approach, but involves some additional technical difficulties. These include:

1. Since there is no unique identifier (ID) assigned for Maryland hospitalized patients, and since the MHPR initiative proposes to include potentially preventable readmissions in the denominator that

occur across hospitals (not just within the same hospital), staff has developed a method for assigning unique IDs for matching patients within and across hospitals who are readmitted using a probabilistic matching approach. The core premise of the algorithm used is to identify unique patients and assign unique IDs to patients with the same gender, date of birth and zip code who are hospitalized within the window of time specified in the MHPR policy (e.g., 30 days), both within the same hospital and across hospitals.

There exists within this approach the possibility that the algorithm may produce false negative (an individual patient is incorrectly assigned more than one ID) and false positive (different patients are incorrectly assigned the same unique ID) results. However, the potential for these errors is likely rare, they will occur randomly for all facilities and they do not disproportionately affect one group/class of hospitals. To further validate the algorithm, the results yielded from the matching algorithm have been compared with patient matching results from Florida where a unique patient ID is used, and Maryland estimates of readmission rates based upon the matching algorithm fit within the expected relationships of statewide within vs. across hospital readmissions, total readmission rates and differences by payer. If the algorithm were contributing serious distortion it could be expected that some anomalies would become apparent.

2. Comparable data are not available for admissions out-of-state. As mentioned, failure to account for out-of-state readmissions would reduce the readmission rates for hospitals located close to the border with other states. This issue can be handled through the use of other comprehensive data that account for admissions and readmissions both in and out of Maryland (see section entitled Medicare, BlueCross, and Medicaid Out-of-State Adjustment Factors on Page 13).

Calculation of Chain Weights

Previous PPR calculations were based on the number of readmissions, with all readmissions weighted equally. Clearly the costs associated with readmissions will vary by the type of initial admission. The calculation described in this section modifies the calculation of the relative PPR rates of the hospitals to take into account the chain weights as well as mix of initial admissions in chains by APR-DRG and Severity of illness (SOI).

The APR-DRG and SOI output by the PPR grouper are the standard ones, and not the groupings as modified by the HSCRC to split the mental health admissions based on voluntary/involuntary, and the splitting of the rehabilitation APR-DRGs. The weights developed for the HSCRC APR-DRGs were consolidated to produce weights that would be applicable to the standard APR-DRGs.

The weight for a re-admission chain was calculated by summing the APR-DRG/SOI weights for each readmission in the chain (not including the initial admission). These weights were then assigned to all readmission chains as the "actual" weight for the chain. The chain weights were then summarized by

calculating the mean chain weight for all chains following an initial or only admission in a given APR-DRG/SOI. The resulting weight is the expected weight for readmissions following the initial or only admission in the particular APR-DRG/SOI. The rankings were then recalculated using these weights.

Options for Level of Adjustment Applied

1) Option 1 is to simply use the PPR rates themselves (counts of actual vs. expected readmissions). This is what has been presented in previous meetings.

2) Option 2 attempts to factor in the relative costliness of readmissions that follow an initial admission. As such it is most analogous to the MHAC methodology utilized by the Commission when attempting to differentiate hospital performance on the basis of Potentially Preventable Complications. In this instance, the PPR rate would be weighted by the expected weight associated with chains starting with the particular APR-DRG/SOI in the initial admission. This is the method used in the preceding discussion.

3) Option 3 would carry this logic of weighting the readmission chain by the actual weights of each readmission chain. In this option the PPR rate would be adjusted to account for the actual weight of readmissions in the subsequent chain.

4) Option 4, uses the Option 3 approach, but with some outlier threshold applied to limit the weight for which the initial hospital was accountable.

Each of the subsequent options beyond Option 1, are an attempt to refine the PPR rate analysis to make it fairer to individual hospitals and also to be a more accurate representation of actual and preventable additional resource use associated with preventable readmissions.

The HSCRC staff believes that Option 2 is the best compromise between accuracy and simplicity, and because it is the most consistent with the way in which the PPC calculations are being done. The following examples of each of these options should make them clearer. The formulae for calculation of chain weights, and actual and expected values are shown in **Appendix III.** Below is more detail on each of these options using examples.

Option 1: PPR rate

In this option all readmission chains are counted, and they all have equal weight. The APR-DRG/SOIs will have different proportions of readmissions associated with them, and the expected readmission rate for a hospital is adjusted using these different proportions.

In each of the options we will consider the same 2 cases with initial admissions in:

Case 1: APR-DRG/SOI 811.1 - allergic reaction / minor

Case 2: APR-DRG/SOI 161.4 - cardiac defibrillator and heart assist implant/ extreme.

Under Option 1 readmission chains following either of these initial admissions are counted as equal.

Option 2: Expected chain weight

The chain weight is the mean case mix weight associated with readmissions following a given APR-DRG/SOI. The chain weights are used to calculate both the actual and expected PPR rates for each hospital. Thus, the hospital is being held accountable for the proportion of readmission chains within each APR-DRG/SOI, and these are weighted by the expected chain weight for the APR-DRG/SOI, but not for the actual case mix weights of the readmissions.

The expected chain weights vary from .17 to 33.2. with a median value of 1.36.

APR-DRG/SOI 811.1 (minor allergic reaction) has a chain weight of 0.30, while 161.4 (cardiac defibrillator and heart assist implant) has a chain weight of 11.8. Under Option 1 a readmission chain following 811.1 would have the same impact as a readmission chain following an initial admission in 161.4. Under Option 2 the readmission chain following 161.4 would be weighted with the chain weight of 11.8.

In neither case would any account be taken of the actual case mix weights of the readmissions that occurred.

Case 1: Expected and actual weight is 0.30

Case 2: Expected and actual weight is 11.8

Option 3: Actual and expected chain weights

As in Option 2, the chain weight is the mean case mix weight associated with readmissions following a given APR-DRG/SOI, and the chain weights are used to calculate the expected PPR rates for each hospital. Under this scenario, the actual case mix weights for the readmissions would be used to calculate the actual PPR rate for the hospital. Thus, the hospital is being held accountable for both the proportion of readmission chains within each APR-DRG/SOI, and the case mix weights for the actual readmissions.

A chain with an initial APR-DRG/SOI of 161.4 would have an expected chain weight of 11.8, but its actual chain weight would be the sum of the case mix weights for the readmissions that actually occurred following that particular initial admission. There are chains with up to 6 readmissions following 161.4, and the individual chain weights go up to 42.6.

Since some chains can be quite long, and the case mix weights associated with some of the readmissions can be high, it would be desirable to place a limit, or outlier threshold, on the chain weights used in the actual PPR rate calculation, which leads to option 4. The individual chain weights range from 0 to 106.

Case 1: Expected weight is 0.30, actual weight anywhere from 0.26 to 0.53.

Case 2: Expected weight is 11.8, actual weight anywhere from 8.5 to 42.6.

Option 4: Option 3 with an outlier

The non-zero individual chain weights range from 0.16 to 106. Only 1% have a chain weight greater than 10. To reduce the risk an outlier threshold could be applied if option 3 is selected.

Issue 3: Additional Adjustments Required

The following analysis used option 2 above for weighting purposes, data for fiscal years 2008 and 2009, the version 27.0 of the PPR grouper, and focused on readmissions within a 30-day readmission window. A longer readmission window would provide a more comprehensive approach to this analysis – as it captures cases that are potentially preventable but do not present immediately to hospitals in the form of a readmission.

PPR rates, adjusted by the weights of the readmission chains, were calculated by APR-DRG/SOI (risk adjusted) using the entire data set for both years. These statewide readmission rates were then used as the expected values in the analysis.

Adjustment for Age Category and Mental Health Status

The actual to expected, chain weight adjusted, PPR rates were calculated by age category and mental health status, and the ratio of the two was used as an adjustment factor for age category and mental health status. The age categories used were 0-17, 18-64, and 65 and older. The adjustment factors were as follows in Table 1:

Table 1 – Adjustment Factors for Age, Mental Health/Substance Abuse Secondary Diagnosis, and Medicaid Presence

Age category	Mental health diagnosis	Calculated factor
0 – 17	No	0.73
0 – 17*	Yes	0.73
18 – 64	No	0.95
18 – 64	Yes	1.05
65 and older	No	1.05
65 and older	Yes	1.07

* There are a small number of cases in age category 0 with positive mental health status, so the difference between the values is not significant. A combined factor of 0.73 should be used for all age category 0 cases independent of mental health status.

Adjustment for Medicaid as Primary of Secondary Payer

A chain was determined to be a Medicaid count if the principal or secondary payer was Medicaid or Medicaid HMO for any discharge for that patient in the data set. Using this definition of Medicaid, the Medicaid patients were found to have a substantially higher PPR rate than non-Medicaid patients. The adjustment factor for Medicaid was 1.188, and for non-Medicaid was 0.937 – a 25% difference. Given these results, adjustments should be made for age category, mental health status, and the patient's Medicaid status.

For patients with Medicaid as primary or secondary payer anywhere in the chain of readmissions, there was a significantly higher actual rate compared to the expected rate of readmissions than was explained solely by the APR DRG SOI category.

Medicare, Blue Cross, and Medicaid out-of-state adjustment factors

In order to adjust for out-of-state readmissions, which would be expected to be higher for hospitals close to borders with other states, Medicare data was obtained for federal fiscal year 2008.

The rate of PPRs was calculated by hospital, along with the expected rate using the statewide expected rates developed previously using all payers, and the age and mental health adjustment factors previously listed. The ratio of the actual to the expected was calculated by hospital, first using discharges to hospitals in any state, and then using just discharges from Maryland hospitals. The ratio of these two was the adjustment factor to be applied to adjust for out-of-state Medicare readmissions.

Staff also secured similar multi-state data from CareFirst Blue Cross of Maryland. This readmission factor will be combined with the corresponding factor developed by Blue Cross to calculate an estimated adjustment factor for out-of-state readmissions.

For a majority of hospitals, the out of state readmission rates across the Medicare and CareFirst data were very consistent. In the case of a few hospitals, there are major inconsistencies between the Medicare and CareFirst migration adjustment factors calculated in this way. It may be necessary, therefore, to calculate an alternative out-of-state adjustment factor for these hospitals. Staff continues to work with the Department of Health and Mental Hygiene to develop a clean data set sufficient to calculate similar cross-state readmission rates from the Medicaid data. Thus far, it has not been possible to develop a similar adjustment using Medicaid data because the data received from Medicaid had only CPT and not ICD procedure codes, so they could not be run through the PPR grouper.

Staff will continue to work on these and other outstanding technical issues, but we believe that the data for out-of-state readmission rates will be sufficient to establish meaningful adjustment factors to allow for a fair and reasonable comparison across hospitals.

Proposed Payment Methodology

Staff believes that the first phase of a PPR-based payment policy in Maryland can be implemented with a structure similar to the payment structure used in linking payment to performance for MHACs. This means that PPR payment would be structured by scaling a magnitude of at-risk system revenue, either positive or negative, across all hospitals at the time of the application of the annual update factor (in the case of MHACs, this amount has been modeled using 0.5% of system revenue). As with MHACs, this first phase would be implemented in a revenue-neutral way with the precise magnitude of at-risk revenue determined in the context of anticipated future updates and the need to offset "counter-incentives" faced by the hospital, and other considerations.

Application of Adjusted PPR Rates (Actual vs. Expected) in a Payment Structure

The table below presents the results of the adjusted (but not yet adjusted for out-of-state migration) PPR rates scaled based on the weighting system described in option 2 above (the allocation basis). The allocation basis is calculated as the actual number of weighted readmissions minus the expected

number of weighted readmissions (weighted by the chain weight), divided by the total case mix weight associated with the included initial or only admission at the hospital. The allocation basis is then arrayed in descending order, thereby ranking hospitals from highest to lowest.

A continuous scale is then calculated using the range of the allocation basis (the difference between the highest value and the lowest value). The scale is calculated in a way that the highest rank hospitals or those that are classified as high-end outliers receive the maximum penalty of 0.5% and conversely, the lowest rank hospitals or those that are classified as low-end outliers receive the maximum reward. However, depending on the distribution of hospitals and the amount of revenue to be redistributed, the better performing hospitals at the low-end may receive a greater proportion of revenue above and beyond the allotted proportion of 0.5%. As mentioned, staff must ultimately apply the out-of-state migration adjustments to the PPR rates. This will be accomplished once all the issues associated with the out-of-state adjustment factor have been resolved.

Payment Simulation based on FY 2008 and FY 2009 Adjusted PPR Performance Results

Table 2 - Simulated Ranking of Adjusted PPR Performance by Hospital and Scaled on a Revenue-Neutral Basis (0.5% At-Risk Revenue used for Simulation Purposes only)

Maryland Hospitals' Updated Scaling Draft for Potentially Preventable Readmissions
Model: Scaling 0.5% Statewide Inpatient Revenue Updated 4/27/10

HOSPID	HOSPITAL NAME	INDEX	CONTINUOUS SCALE ALLOCATION BASIS	SCALE ADJUSTMENT (1)	
210028	St. Mary's Hospital	1.2322	2.40%	-0.50%	Less Favorable
210029	Johns Hopkins Bayview Medical Center	1.1509	2.13%	-0.45%	Performance
210025	Memorial of Cumberland	1.1847	1.86%	-0.41%	
210032	Union of Cecil	1.1341	1.83%	-0.40%	
210006	Harford Memorial Hospital	1.1266	1.82%	-0.40%	
210038	Maryland General Hospital	1.094	1.80%	-0.39%	
210035	Civista Medical Center	1.1403	1.76%	-0.39%	
210043	Baltimore Washington Medical Center	1.1129	1.61%	-0.36%	
210002	University of Maryland Hospital	1.0944	1.48%	-0.34%	
210033	Carroll Hospital Center	1.1054	1.34%	-0.31%	
210040	Northwest Hospital Center	1.0758	1.30%	-0.31%	
210049	Upper Chesapeake Medical Center	1.1003	1.22%	-0.29%	
210056	Good Samaritan Hospital	1.0708	1.15%	-0.28%	
210007	St. Joseph Medical Center	1.0787	1.04%	-0.26%	
210051	Doctors Community Hospital	1.0563	0.86%	-0.23%	
210034	Harbor Hospital Center	1.0446	0.58%	-0.18%	
210004	Holy Cross Hospital	1.0349	0.35%	-0.14%	
210030	Chester River Hospital Center	1.0255	0.31%	-0.13%	
210027	Braddock Hospital	1.0123	0.19%	-0.11%	
210008	Mercy Medical Center	1.0152	0.18%	-0.11%	
210015	Franklin Square Hospital Center	1.0088	0.12%	-0.10%	
210011	St. Agnes Hospital	0.9998	0.00%	-0.08%	
210009	Johns Hopkins Hospital	0.9955	-0.07%	-0.06%	
210054	Southern Maryland Hospital Center	0.9926	-0.10%	-0.06%	
210037	Memorial Hospital at Easton	0.98	-0.25%	-0.03%	
210013	Bon Secours Hospital	0.9822	-0.37%	-0.01%	
210024	Union Memorial Hospital	0.9682	-0.47%	0.01%	
210005	Frederick Memorial Hospital	0.9613	-0.51%	0.03%	
210057	Shady Grove Adventist Hospital	0.9431	-0.61%	0.08%	
210018	Montgomery General Hospital	0.9548	-0.62%	0.08%	
210012	Sinai Hospital	0.9512	-0.71%	0.12%	
210023	Anne Arundel Medical Center	0.9268	-0.77%	0.14%	
210045	McCready Memorial Hospital	0.9394	-0.85%	0.17%	
210061	Atlantic General Hospital	0.9254	-1.12%	0.29%	
210016	Washington Adventist Hospital	0.9263	-1.13%	0.29%	
210048	Howard County General Hospital	0.905	-1.15%	0.30%	
210022	Suburban Hospital	0.8903	-1.40%	0.40%	
210044	GBMC	0.8703	-1.41%	0.41%	
210039	Calvert Memorial Hospital	0.8721	-1.45%	0.42%	
210010	Dorchester General Hospital	0.9029	-1.62%	0.50%	
210001	Washington County Hospital	0.8726	-1.65%	0.51%	
210060	Fort Washington	0.8613	-1.71%	0.53%	
210017	Garrett County Memorial Hospital	0.8007	-2.06%	0.68%	
210019	Peninsula Regional Medical Center	0.8506	-2.26%	0.76%	
210058	James Lawrence Kernan Hospital	0.6334	-2.68%	0.94%	
210055	Laurel Regional Hospital	0.7729	-3.27%	1.19%	Most Favorable
210003	Prince Georges Hospital Center	0.7623	-3.31%	1.19%	Performance
	Statewide Total		0.00%		

(1) Presumes 0.5% of revenue is scaled (for illustrative purposes - exact magnitude of scaling MHPRs has not been determined)

Infrastructure Development Considerations

The HSCRC staff believe it will be extremely appropriate and helpful to the MHPR initiative for the HSCRC to assist in the development of a MHPR Improvement Infrastructure to assist hospitals in their attempt to improve upon the processes of transitioning patients out of the hospital after an admission and otherwise decreasing the rates of readmission within the targeted Readmission Window (currently recommended to be 30 days post initial discharge).

The staff intends to recommend an approach that would at first be funded by means of a small assessment on hospital rates (0.01% is anticipated – generating approximately $1 -1.2 million per year for at least the first two years). These funds would be used as the basis for funding an infrastructure and on-going resource support mechanism to be administrated by an outside entity (or entities).

It is contemplated that HSCRC staff will develop criteria and administrator requirements and request proposals from qualified organizations for the establishment of such an Improvement Infrastructure and Resource Entity for the State. The HSCRC would then (in conjunction with other payer and hospital industry representatives) select an administrator or team of entities to administer the infrastructure based on an evaluation of proposals and based on pre-established review criteria.

It is anticipated that the Improvement Infrastructure and Resource Entity would, at a minimum, provide:

- Ongoing, regular feedback data/reports to hospitals (e.g., their readmission rates and trends over time, patient populations driving their readmission rates higher, etc.)

- Develop an action plan of strategies using expert panel advisors or models in use in the field and a literature search of evidence-based practices for which ongoing resources/supports can be provided to improve readmission rates. Some examples include:

    During hospitalization:
    - Risk screen patients and tailor care
    - Establish communication with PCP, family, and home care
    - Use “teach-back” to educate patients about diagnosis and care
    - Use interdisciplinary/multidisciplinary clinical teams
    - Coordinate patient care across multidisciplinary care team
    - Discuss end-of-life treatment wishes

    At discharge:
    - Implement comprehensive discharge planning
    - Educate patient/caregiver using “teach-back”
    - Schedule and prepare for follow-up appointment
    - Help patient manage medications

- Facilitate discharge to nursing homes with detailed discharge instructions and partnerships with nursing home practitioners

Post discharge:

- Promote patient self management
- Conduct patient home visit
- Follow up with patients via telephone
- Use personal health records to manage patient information
- Establish community networks
- Use tele-health in patient care

Given the focus on reducing unnecessary admissions at a federal level, it is important that the State attempt to leverage its own commitment by linking back to funding soon to be available through the Centers for Medicare and Medicaid Services (CMS). During this two-year period of State support the HSCRC would seek matching and/or replacement funding from Federal or outside foundation sources.

Given the fact that health care truly is local in many ways, it will be important to engage entities or partners of lead entities with a local presence and experience in order to build an infrastructure that is able to focus on and address the issues of most import and patterns of care influencing readmissions that are specific to Maryland.

Other Related Activity and Next Steps

Recently, the HSCRC staff initiated a series of educational sessions and clinical vetting sessions for representatives of the Maryland hospital and payer industries. On Wednesday April 7, Commission staff convened a session focusing on a clinical and methodological overview of the PPR logic.

Later in the Spring of 2010, the HSCRC will convene two clinical vetting sessions with hospital clinical and coding personnel, HSCRC staff, and the developers of the 3M Health Information System tools utilized in the proposed MHPR methodology.

Simultaneously, staff is scheduling a series of meetings with a subgroup of the MHPR Work Group to discuss the organization, development, and funding of the MHPR Infrastructure Initiative as described above that would be designed to establish a Quality Improvement Program to assist Maryland hospitals in analyzing their own PPR performance and reducing their rates of Readmissions.

Staff has also prepared a detailed response to data-related issues raised by the MHA at the May Commission meeting. That detailed response will be discussed with industry representatives in the context of the clinical vetting sessions to be held later this month. Staff's detailed response will also be provided to the MHPR Work Group and to the HSCRC.

Over the coming month, the HSCRC staff will continue to meet with the members of the MHPR Work Group to refine the indentified adjustments to PPR rates and integration of those adjusted rates into an acceptable and fair scaling and payment structure.

Staff anticipates presenting a final recommendation for implementation of the MHPR payment methodology at the June Commission meeting.

Staff Draft Recommendations

Based on the staff work chronicled above and the input received thus far from the Maryland Hospital Preventable Readmission Work Group, for Rate Year FY 2011, the HSCRC staff makes the following draft recommendations:

1. Implement a rate-based approach for measuring PPRs where hospitals are compared based on their own actual performance relative to the statewide average for PPRs, thereby eliminating the discussions and concerns of the relative preventability of a specific case;

2. Base the calculation of actual vs. expected PPR rates on a 30-day Readmissions Window;

3. Adjust individual hospital PPR performance by adjustment factors relating to: a) age splits; b) presence of mental health/substance abuse secondary diagnoses; c) disproportionate share effects; and d) out-of-state migration;

4. Implement scaling of hospital payment adjustments so that a hospital's performance on the PPR methodology, either positive or negative, is reflected at the time of its update factor - the magnitude of funds scaled (at-risk revenue) should be established in the context of future rate discussions;

5. Base the relative hospital performance for purposes of scaling at-risk revenue on the actual number of weighted readmissions minus the expected number of weighted readmissions (weighted by the chain weight), divided by the total case mix weight associated with the included initial or only admission at the hospital.

6. Base measurement and performance measurement periods for comparing hospitals' performance on actual readmissions vs. expected readmissions have not yet been discussed in depth by the Readmissions Work Group. The Group did however express interest in the selection of a base period that would allow hospitals to know their expected targets as they progress through the performance year. The base and performance periods will be 13 months in duration, in order to capture readmissions from the end of each period during the course of the 30-day readmission window;

7. Consistent with the process for the establishment of the HSCRC's MHAC initiatives, provide a mechanism on an ongoing basis to receive input and feedback from the industry and other stakeholders to refine and improve the PPR logic;

8. Make a tracking tool reasonably accessible to hospitals so that they may track their performance throughout the measurement year;

9. Beginning in the Spring of 2010 and forward, work with representatives of the Maryland hospital and payer industries and other entities/individuals with expertise in quality-related infrastructure initiatives, to develop and secure funding for a state-wide initiative Maryland Hospital Preventable Readmission Infrastructure and Quality Improvement Project, which will analyze data from various sources on the best methods to reduce preventable readmissions, provide assistance to hospitals to improve processes of transitioning patients out of the hospital after an acute care admission, and otherwise decrease the rate of hospital readmissions within the specified Readmission Time Intervals.

Appendix I – New England Journal of Medicine Article on Readmission Rates for Medicare patients (Jenks, et.al.)

SPECIAL ARTICLE

Rehospitalizations among Patients in the Medicare Fee-for-Service Program

Stephen F. Jencks, M.D., M.P.H., Mark V. Williams, M.D., and Eric A. Coleman, M.D., M.P.H.

ABSTRACT

BACKGROUND

Reducing rates of rehospitalization has attracted attention from policymakers as a way to improve quality of care and reduce costs. However, we have limited information on the frequency and patterns of rehospitalization in the United States to aid in planning the necessary changes.

METHODS

We analyzed Medicare claims data from 2003–2004 to describe the patterns of rehospitalization and the relation of rehospitalization to demographic characteristics of the patients and to characteristics of the hospitals.

RESULTS

Almost one fifth (19.6%) of the 11,855,702 Medicare beneficiaries who had been discharged from a hospital were rehospitalized within 30 days, and 34.0% were rehospitalized within 90 days; 67.1% of patients who had been discharged with medical conditions and 51.5% of those who had been discharged after surgical procedures were rehospitalized or died within the first year after discharge. In the case of 50.2% of the patients who were rehospitalized within 30 days after a medical discharge to the community, there was no bill for a visit to a physician's office between the time of discharge and rehospitalization. Among patients who were rehospitalized within 30 days after a surgical discharge, 70.5% were rehospitalized for a medical condition. We estimate that about 10% of rehospitalizations were likely to have been planned. The average stay of rehospitalized patients was 0.6 day longer than that of patients in the same diagnosis-related group whose most recent hospitalization had been at least 6 months previously. We estimate that the cost to Medicare of unplanned rehospitalizations in 2004 was $17.4 billion.

CONCLUSIONS

Rehospitalizations among Medicare beneficiaries are prevalent and costly.

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MEDICARE CURRENTLY PAYS FOR ALL rehospitalizations, except those in which patients are rehospitalized within 24 hours after discharge for the same condition for which they had initially been hospitalized. Recent policy proposals would alter this approach and create payment incentives to reduce the rates of rehospitalization. The Medicare Payment Advisory Commission (MedPAC) recommended to Congress in its report in June 2008 that hospitals receive from the Centers for Medicare and Medicaid Services (CMS) a confidential report of their risk-adjusted rehospitalization rates and that after 2 years, rates should be published. MedPAC also recommended complementary changes in payment rates, so that hospitals with high risk-adjusted rates of rehospitalization receive lower average per case payments. The commission reported that Medicare expenditures for potentially preventable rehospitalizations may be as high as $12 billion a year.[1] In July 2008, the National Quality Forum adopted two measures of hospital performance based on the rate of rehospitalization,[2] and the CMS indicated an interest in making the rehospitalization rate a measure for value-based hospital payment.[3] Reducing rehospitalization is an important element of President Barack Obama's February 2009 proposal for financing health care reform.[4] Such proposals would radically change the accountability of hospitals for patients' outcomes after discharge.

These proposals addressing all-cause rehospitalization highlight the importance of understanding the factors that influence the disparate causes of rehospitalization. Although there is extensive literature on rehospitalization attributed to particular conditions, especially heart failure,[5] there is very limited research addressing the broader issues involving the multitude of diseases and processes that contribute to rehospitalization. Until the 2007 MedPAC report (cited in the 2008 MedPAC report[1]), there was, to our knowledge, no follow-up of the measurement of the overall Medicare rehospitalization rate that Anderson and Steinberg made in their seminal study in 1984.[6] Building on the 2007 MedPAC report, we undertook this study to examine three key questions: What is the frequency of unplanned and planned rehospitalizations within 30 days after discharge? How long does the elevated risk of rehospitalization persist? What is the frequency of follow-up outpatient visits with a physician after a patient's discharge from a hospital?

METHODS

DATA SOURCES

We used data from the Medicare Provider Analysis and Review (MEDPAR) file for the 15-month period from October 1, 2003, through December 31, 2004; the MEDPAR file does not contain any discharges from 855 critical access hospitals or discharges of patients who were enrolled in managed-care plans. Inpatient claims for individual patients were linked with the use of the Health Insurance Claim Number–Beneficiary Identification Code. To study follow-up visits, we used the 5% national sample of linked physician and hospital claims for 2003 that is maintained in the CMS Chronic Condition Data Warehouse.[7] We used data from different intervals depending on the amount of previous or follow-up data that we needed for the analysis. The study design and procedures were approved by the Colorado Multiple Institutional Review Board.

ASSESSMENT OF REHOSPITALIZATION AND DIAGNOSES

We defined the rate of rehospitalization in the following way: the number of patients who were discharged from an acute care hospital and readmitted to any acute care hospital within 30 days divided by the total number of people who were discharged alive from acute care hospitals. We counted no more than one rehospitalization for each discharge. We excluded from the numerator and denominator patients who were transferred on the day of discharge to other acute care hospitals, including patients who were admitted to hospital specialty units, inpatient rehabilitation facilities, and long-term care hospitals (we included all other same-day rehospitalizations in our analyses). We also excluded patients who were rehospitalized for rehabilitation (diagnosis-related group [DRG] 462) within 30 days after discharge. We calculated rates over a 12-month period for the cohort that was discharged between October 1 and December 31, 2003, after determining that seasonal variation was less than 0.2 percentage point. In this calculation, data for a patient were censored when he or she was rehospitalized or died before hospitalization.

To examine the patterns of diagnoses at discharge and rehospitalization, we identified the five medical and five surgical DRGs that accounted for the largest number of rehospitalizations within 30 days after discharge and tabulated the 10 most frequent reasons for rehospitalization for each DRG. To estimate the fraction of rehospitalizations that might have been planned, we examined the 100 DRGs that are most frequently assigned to rehospitalized patients and ranked them according to whether planning was clinically plausible (e.g., rehospitalization for pneumonia is very unlikely to have been planned, whereas rehospitalization for placement of a stent could well be) and whether the rate of rehospitalization for the DRG showed the exponential rate of decrease that is characteristic of most DRGs when planned rehospitalization is unlikely (for details, see the Supplementary Appendix, available with the full text of this article at NEJM.org).

We calculated a hospital's expected rehospitalization rate as the rehospitalization rate expected if each of its Medicare discharges had the same rehospitalization risk as the national average for Medicare discharges in the same DRG (indirect adjustment). We used the ratio of observed to expected hospitalizations to stratify hospitals into quartiles and calculated differences in rehospitalization rates among hospitals with 1000 or more Medicare discharges.

We used the Medicare provider number to assess whether the patient was readmitted to the same hospital from which he or she had been discharged. We also tabulated length of stay and Medicare payment weights for DRGs (which are based on the average use of hospital resources for treatment of Medicare patients) for rehospitalized patients and for those who had not been hospitalized in the previous 6 months.

RELIABILITY OF DATA

Published definitions of DRGs include a classification of the diagnosis as medical or surgical. The CMS systematically audits the coding of DRGs. Dates of admission and discharge are tied to hospital billing systems, and errors may trigger audits or payment reviews. Whether a beneficiary is receiving dialysis treatment or is disabled is determined in the Medicare eligibility process. Discharge disposition is generally not used for payment and is often unreliable. We used black race, which is reported to be reliably coded, as a covariate but did not use Hispanic ethnic group, which is reported to be seriously undercoded.[8,9]

STATISTICAL ANALYSIS

We used the Cox proportional-hazards model to assess patient-level predictors of rehospitalization. The number of days before rehospitalization represented the survival time, data were censored at the time of death or the end of the observation period, and covariates were the patient characteristics that were available in the MEDPAR file or that could be calculated from the information in it: the hospital's ratio of observed to expected hospitalizations, the national rehospitalization rate for the patient's DRG, race (black or nonblack), use or nonuse of dialysis, presence or absence of disability, sex, Supplemental Security Income (SSI) status, length of stay as compared with the national average for the DRG, number of hospitalizations in the preceding 6 months, and age group. We included the hospital's ratio of observed to expected hospitalizations as a covariate so that differences among hospitals would not obscure the effects of other predictors. Hospital-level characteristics, such as the number of beds, urban or rural location, and teaching or nonteaching status — characteristics that Anderson and Steinberg used in their analyses[6] — are not available in the MEDPAR file, but their effect should be captured in the hospital's ratio of observed to expected hospitalizations. For this analysis we used discharges from April 1 through September 30, 2004, to allow 6 months for identifying previous hospitalizations. We performed all analyses with SAS software.[10]

RESULTS

FREQUENCY OF REHOSPITALIZATION

A total of 13,062,937 patients enrolled in the Medicare fee-for-service program were discharged from 4926 hospitals between October 1, 2003, and September 30, 2004; 516,959 of these patients were recorded as having died, and 690,276 went to other acute care settings, leaving 11,855,702 (90.8%) at risk for rehospitalization. Table 1 shows the cumulative percentage of rehospitalizations and outpatient deaths before rehospitalization by 30, 60, 90, 180, and 365 days after discharge for the cohort of Medicare patients discharged between October 1 and December 31, 2003; 19.6% of the patients were rehospitalized within 30 days,

Table 1. **Rehospitalizations and Deaths after Discharge from the Hospital among Patients in Medicare Fee-for-Service Programs.**

Interval after Discharge	Patients at Risk at Beginning of Period	Cumulative Rehospitalizations by End of Period	Cumulative Deaths without Rehospitalization by End of Period
		number (percent)	
All discharges			
0–30 days	2,961,460 (100.0)	579,903 (19.6)	103,741 (3.5)
31–60 days	2,277,816 (76.9)	834,369 (28.2)	134,697 (4.5)
61–90 days	1,992,394 (67.3)	1,006,762 (34.0)	151,901 (5.1)
91–180 days	1,802,797 (60.9)	1,325,645 (44.8)	177,234 (6.0)
181–365 days	1,458,581 (49.3)	1,661,396 (56.1)	200,852 (6.8)
>365 days	1,099,212 (37.1)		
Discharges after hospitalization for medical condition			
0–30 days	2,154,926 (100.0)	453,993 (21.1)	87,736 (4.1)
31–60 days	1,613,197 (74.9)	653,998 (30.3)	113,188 (5.3)
61–90 days	1,387,740 (64.4)	788,535 (36.6)	127,274 (5.9)
91–180 days	1,239,117 (57.5)	1,032,141 (47.9)	147,851 (6.9)
181–365 days	974,934 (45.2)	1,280,579 (59.4)	166,561 (7.7)
>365 days	707,786 (32.8)		
Discharges after hospitalization for surgical procedure			
0–30 days	806,534 (100.0)	125,910 (15.6)	16,005 (2.0)
31–60 days	664,619 (82.4)	180,371 (22.4)	21,509 (2.7)
61–90 days	604,654 (75.0)	218,227 (27.1)	24,627 (3.1)
91–180 days	563,680 (69.9)	293,504 (36.4)	29,383 (3.6)
181–365 days	483,647 (60.0)	380,817 (47.2)	34,291 (4.3)
>365 days	391,426 (48.5)		

34.0% within 90 days, and 56.1% within 365 days. About two thirds (62.9%) of Medicare fee-for-service beneficiaries who were discharged (67.1% after hospitalization for a medical condition and 51.5% after hospitalization for a surgical procedure) were rehospitalized or died within a year. To avoid double counting, we do not report deaths that occurred during or after rehospitalization. When we omitted cases of end-stage renal disease and included same-day readmissions, as Anderson and Steinberg did,[6] the 60-day rate of rehospitalization was 31.1%.

REASONS FOR REHOSPITALIZATION

Table 2 shows the five medical and five surgical reasons for the index (i.e., initial) hospitalization that were associated with the largest number of rehospitalizations and the top 10 reasons for rehospitalization for each index reason. Most rehospitalizations (84.4% among patients who were discharged after initial hospitalization for medical conditions and 72.6% among patients who were discharged after surgical procedures) were for medical diagnoses. The 100 most frequent rehospitalization DRGs accounted for 73.2% of total rehospitalizations. Among the rehospitalizations ascribed to these 100 DRGs, 10% belonged to 19 DRGs, such as chemotherapy and stent insertion, for which we estimated that planned rehospitalizations were probably an important part of total rehospitalizations (see the Supplementary Appendix). We did not attempt to estimate the percentage of these rehospitalizations that were actually planned.

Table 2. **Highest Rates of Rehospitalization and Most Frequent Reasons for Rehospitalization, According to Condition at**

Condition at Index Discharge	30-Day Rehospitalization Rate	Proportion of All Rehospitalizations		
			Most Frequent	2nd Most Frequent
	percent			
Medical				
All	21.0	77.6	Heart failure (8.6)	Pneumonia (7.3)
Heart failure	26.9	7.6	Heart failure (37.0)	Pneumonia (5.1)
Pneumonia	20.1	6.3	Pneumonia (29.1)	Heart failure (7.4)
COPD	22.6	4.0	COPD (36.2)	Pneumonia (11.4)
Psychoses	24.6	3.5	Psychoses (67.3)	Drug toxicity (1.9)
GI problems	19.2	3.1	GI problems (21.1)	Nutrition-related or metabolic issues (4.9)
Surgical				
All	15.6	22.4	Heart failure (6.0)	Pneumonia (4.5)
Cardiac stent placement	14.5	1.6	Cardiac stent (19.7)	Circulatory diagnoses (8.5)
Major hip or knee surgery	9.9	1.5	Aftercare (10.3)	Major hip or knee problems (6.0)
Other vascular surgery	23.9	1.4	Other vascular surgery (14.8)	Amputation (5.8)
Major bowel surgery	16.6	1.0	GI problems (15.9)	Postoperative infection (6.4)
Other hip or femur surgery	17.9	0.8	Pneumonia (9.7)	Heart failure (4.8)

* Index conditions listed within medical and surgical groups are in order of decreasing total number of rehospitalizations within 30 days after discharge. The diagnosis-related group (DRG) numbers for the conditions listed are as follows: acute myocardial infarction: 121, 122, 123, 516, 526; arrhythmias: 138, 139; amputation: 113; cardiac stent: 517, 527; chest pain: 143; circulatory disorders: 124; COPD: 088; depression: 429; drug toxicity: 449; drug or alcohol misuse: 521; fracture of hip or pelvis: 236; gastrointestinal bleeding: 592; gastrointestinal problems: 182, 183, 184; heart failure: 127; major bowel surgery: 148, 149; major hip or knee problems: 209; nutrition-related or metabolic issues: 296, 297, 298; operation for infection: 415; organic mental conditions: 429; other hip or femur surgery: 210; other circulatory diagnoses: 144; other vascular surgery: 478, 479; pneumonia: 79, 80, 81, 89, 90, 91; postoperative infection: 418; psychoses: 430; pulmonary edema: 087; rehabilitation: 462; renal failure: 316; respiratory or ventilation issues: 475; septicemia: 416, 417; and urinary tract infection: 320, 321, 322. COPD denotes chronic obstructive pulmonary disease, and GI gastrointestinal.

Index Discharge.*	Reason for Rehospitalization		
3rd Most Frequent	4th Most Frequent	5th to 10th Most Frequent	Less Frequent
percent of all rehospitalizations within 30 days after index discharge			
Psychoses (4.3)	COPD (3.9)	GI problems, nutrition-related or metabolic issues, septicemia, GI bleeding, renal failure, urinary tract infection (17.0)	All other (58.9)
Renal failure (3.9)	Nutrition-related or metabolic issues (3.1)	Acute myocardial infarction, COPD, arrhythmias, circulatory disorders, GI bleeding, GI problems (14.0)	All other (36.9)
COPD (6.1)	Septicemia (3.6)	Nutrition-related or metabolic issues, GI problems, respiratory or ventilation problems, pulmonary edema, GI bleeding, urinary tract infection (14.9)	All other (38.9)
Heart failure (5.7)	Pulmonary edema (3.9)	Respiratory or ventilation problems, GI problems, nutrition-related or metabolic issues, arrhythmias, GI bleeding, acute myocardial infarction (12.5)	All other (30.3)
Drug or alcohol misuse (1.6)	Pneumonia (1.6)	Chest pain, nutrition-related or metabolic issues, depression, GI problems, COPD, organic mental conditions (7.0)	All other (20.6)
Pneumonia (4.3)	Heart failure (4.2)	Major bowel surgery, urinary tract infection, septicemia, GI bleeding, COPD, chest pain (13.4)	All other (52.1)
GI problems (3.3)	Septicemia (2.9)	Nutrition-related or metabolic issues, postoperative infection, placement of cardiac stent, GI bleeding, operation for infection (14.6)	All other (68.7)
Chest pain (6.1)	Heart failure (5.7)	Atherosclerosis, acute myocardial infarction, GI bleeding, GI problems, arrhythmias, other vascular surgery (19.4)	All other (40.6)
Pneumonia (4.2)	Postoperative infection (3.1)	GI problems, GI bleeding, heart failure, operation for infection, rehabilitation, nutrition-related or metabolic issues (15.8)	All other (60.6)
Heart failure (5.0)	Other circulatory problems (4.4)	Postoperative infection, other circulatory procedures, operation for infection, peripheral vascular disorders, pneumonia, septicemia (19.0)	All other (51.0)
Nutrition-related or metabolic issues (5.6)	GI Obstruction (4.3)	Pneumonia, major bowel surgery, renal failure, septicemia, operation for infection, GI bleeding (15.4)	All other (52.4)
Septicemia (4.7)	GI bleeding (4.0)	Urinary tract infection, fracture of hip or pelvis, other hip or femur surgery, aftercare, nutrition-related or metabolic issues, major hip or knee problems (20.7)	All other (56.1)

GEOGRAPHIC PATTERN

Figure 1 shows the geographic pattern of rates of rehospitalization within 30 days after discharge in the United States and two of its territories. The rehospitalization rate was 45% higher in the five states with the highest rates than in the five states with the lowest rates.

HOSPITALS

Except as noted, the following results are for hospitals with 1000 or more annual Medicare discharges. The correlation of the number of patients discharged with rehospitalization rates was low ($r=-0.11$, $P<0.001$). Hospitals with a ratio of observed to expected hospitalizations in the high-

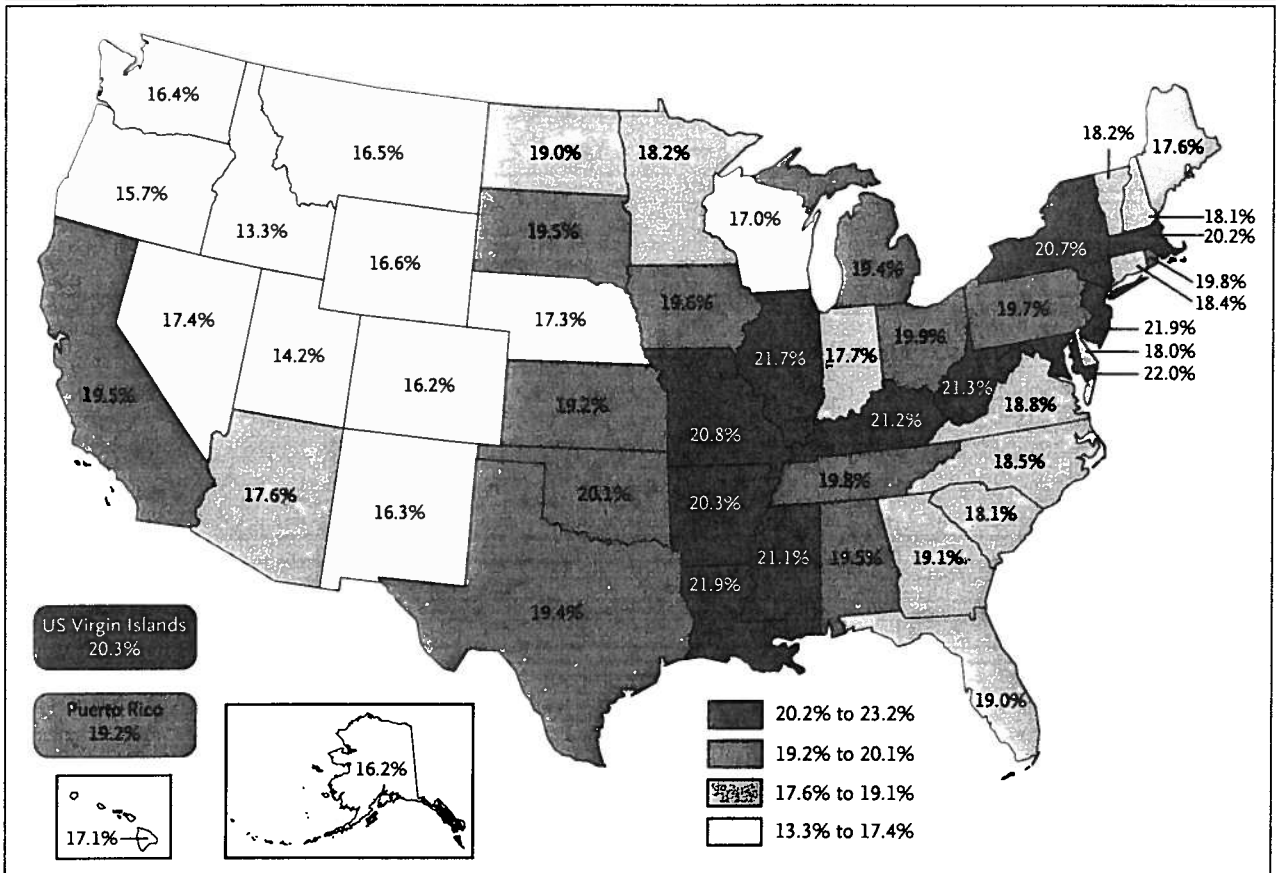

Figure 1. Rates of Rehospitalization within 30 Days after Hospital Discharge.

The rates include all patients in fee-for-service Medicare programs who were discharged between October 1, 2003, and September 30, 2004. The rate for Washington, DC, which does not appear on the map, was 23.2%.

est quartile had an expected 30-day rehospitalization rate of 20.6%, as compared with their observed rate of 26.1%. The corresponding rates for hospitals in the lowest quartile were 18.7% and 14.3%, respectively. One quarter (25.1%) of the admissions in hospitals in the highest quartile came from rehospitalizations within 30 days after discharge (as compared with 17.0% of admissions in all hospitals and 13.1% of admissions in hospitals in the lowest quartile).

The rehospitalization rate that was expected on the basis of DRGs strongly predicted the observed rate (R^2=0.276, P<0.001). Unadjusted hospital rates correlated strongly with DRG-adjusted rates (r=0.975, P<0.001); rehospitalization rates 30 and 90 days after discharge also correlated strongly (r=0.953, P<0.001). In the case of hospitals with 1000 or more Medicare discharges, 24.4% (interquartile range, 17.4 to 29.5) of the patients who were rehospitalized within 30 days were admitted to another hospital; in the case of hospitals with fewer than 1000 discharges, 44.2% (interquartile range, 23.6 to 60.0) of the patients were admitted to another hospital.

PATIENTS

The average hospital stay for rehospitalized patients was 0.6 day (13.2%) longer than the stay for patients in the same DRG who had not been hospitalized within the previous 6 months (2,962,208 patients) (P<0.001). The average Medicare payment weight is 1.41 for index hospitalizations and 1.35 for rehospitalizations. Table 3 shows the relative risk of rehospitalization within 30 days after discharge that was associated with each of the variables we analyzed. The reason for the index hospitalization (i.e., the DRG), the number of previous hospitalizations, and the length of stay had more

influence on the risk of rehospitalization than demographic factors such as age, sex, black race, SSI status, and presence or absence of disability.

OUTPATIENT VISITS

Figure 2 shows the percentage of patients discharged to the community after hospitalization for medical conditions and subsequently rehospitalized for whom there was no bill for an outpatient physician visit between the time of discharge and rehospitalization; both the percentage on each day after discharge and the cumulative percentage are shown. There was no associated bill for an outpatient visit for 50.1% of the patients who were rehospitalized within 30 days after discharge and for 52.0% of those who were rehospitalized for heart failure within 30 days after discharge.

Table 3. **Predictors of Rehospitalization within 30 Days after Discharge.***

Variable	Hazard Ratio (95% Confidence Interval)
Hospital's ratio of observed to expected hospitalizations†	1.097 (1.096–1.098)
National rehospitalization rate for DRG†	1.268 (1.267–1.270)
No. of rehospitalizations since October 1, 2003	
0	1.00
1	1.378 (1.374–1.383)
2	1.752 (1.746–1.759)
≥3	2.504 (2.495–2.513)
Length of stay	
>2 times that expected for DRG	1.266 (1.261–1.272)
0.5–2 times that expected for DRG	1.00
<0.5 times that expected for DRG	0.875 (0.872–0.877)
Race‡	
Black	1.057 (1.053–1.061)
Other	1.00
Disability	1.130 (1.119–1.141)
End-stage renal disease	1.417 (1.409–1.425)
Receipt of Supplemental Security Income	1.117 (1.113–1.122)
Male sex	1.056 (1.053–1.059)
Age	
<55 yr	1.00
55–64 yr	0.983 (0.978–0.988)
65–69 yr	0.999 (0.989–1.009)
70–74 yr	1.023 (1.012–1.035)
75–79 yr	1.071 (1.059–1.084)
80–84 yr	1.101 (1.089–1.113)
85–89 yr	1.123 (1.111–1.136)
>89 yr	1.118 (1.105–1.131)

* Data are for patients in Medicare fee-for-service programs who were discharged from the hospital between April 1, 2004, and September 30, 2004, and were followed until October 31, 2004. Data were analyzed with the use of the Cox proportional-hazards model. P<0.001 for all variables except an age of 65 to 69 years. DRG denotes diagnosis-related group.
† These estimates are standardized.
‡ Race was determined from MEDPAR files.

DISCUSSION

The 19.6% rate of rehospitalization within 30 days after discharge that we report for Medicare beneficiaries in 2003–2004 is consistent with the rate in MedPAC's 2008 report of 2005 data (17.6% at 30 days),[1] and the difference probably reflects methodologic differences rather than a temporal trend. We found that the rehospitalization rate at 60 days was 31.1% when we analyzed the data in the same way as Anderson and Steinberg, who reported a rate of 22.5% at 60 days for the 1976–1978 period.[6] This larger difference is more likely to indicate an actual increase in rehospitalization rates over time, perhaps owing to a shorter duration of index hospitalization or to the increase in ambulatory surgery over the past 30 years. Friedman and Basu found that among persons 18 to 64 years of age in five states, the rate of rehospitalization for any reason within 6 months after discharge was 81% of the rate among those older than 64 years of age,[11] which is consistent with our finding that the rehospitalization rate was only weakly related to age.

Our analysis also shows that the risk of rehospitalization after discharge persists over time (Table 1). Further studies will be needed to understand the relative contributions to this risk of failures in discharge planning, insufficient outpatient and community care, and severe progressive illness.

This study was limited by our reliance on Medicare billing data, which provide an incomplete picture and contain some unreliable elements, and on DRGs, which are not fully adjusted for severity of illness. Unmeasured differences in severity of illness might bias comparisons of rehospitalization rates across states, hospitals, and demographic groups. However, DRG adjustment is a moderately strong predictor of the rehospitalization rate (R^2=0.276), so the very high

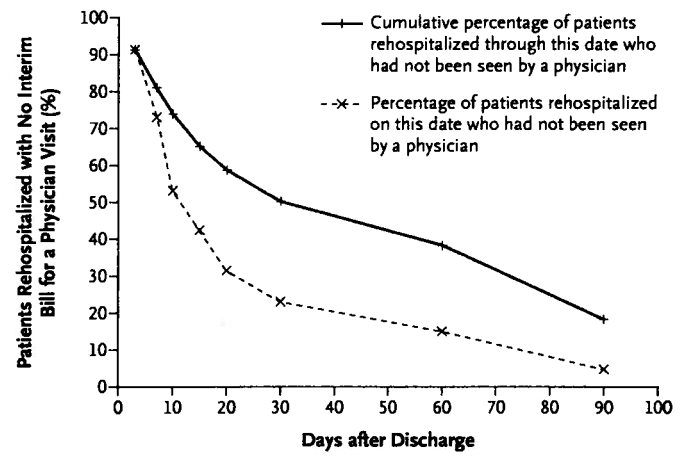

Figure 2. **Patients for Whom There Was No Bill for an Outpatient Physician Visit between Discharge and Rehospitalization.**

Data are for patients in fee-for-service Medicare programs who were discharged to the community between January 1, 2003, and December 31, 2003, after an index hospitalization for a medical condition. Data are derived from claims maintained in the Chronic Condition Data Warehouse of the Centers for Medicare and Medicaid Services.

correlation between unadjusted and DRG-adjusted hospital-level rates suggests that additional adjustment for risk may not add greatly to the analysis of rehospitalization rates. In addition, our assessment of outpatient follow-up was limited by the use of billing data that do not capture most visits to nonphysician providers.

Fisher et al.[12] have argued that the availability of hospital beds induces demand without improving health and that the availability of a bed may also facilitate hospitalization if a patient's condition deteriorates, but we were unable to link measures of the number of hospital beds in a community to the data analyzed here. Nevertheless, their argument bears directly on the question of whether higher rehospitalization rates are evidence of better care or just more care. Similarly, better access to primary care and better continuity of care may reduce the number of rehospitalizations, but we have no data on where in the United States these features are provided, nor do we know where a "medical home"[13] — an enhanced primary care coordinator for all of a patient's care — has been adopted.

Five lines of evidence suggest that rates of rehospitalization might be reduced. First, controlled studies[14-16] have shown that certain interventions at the time of discharge sharply reduce the rates of rehospitalization among patients with heart failure and other Medicare beneficiaries, and preliminary reports suggest that these and other interventions are more effective when used more widely. In contrast, coordination-of-care interventions that are limited to community settings appear to be ineffective in reducing rehospitalization.[17] Research also shows that supportive palliative care can reduce rehospitalization and increase patient satisfaction.[18] In addition, the Quality Improvement Organizations appear to have reversed a national trend of increased hospitalizations from home settings by working with individual agencies that provide home health care.[19]

Second, the absence of a bill for an outpatient physician visit in the case of more than half of the patients with a medical condition who were readmitted within 30 days after discharge to the community is of great concern and suggests a considerable opportunity for improvement. Our concern is heightened by the same finding among patients with heart failure, who are known to have a response to intensified care.[20] Hospitals and physicians may need to collaborate to improve the promptness and reliability of follow-up care.

Third, although claims data are less informative about follow-up care after surgical procedures (because of the global surgical fee), many patients who are discharged after a surgical procedure may benefit from earlier medical follow-up, since a substantial majority of postsurgical rehospitalizations are for medical conditions.

Fourth, our estimate that 90% of rehospitalizations within 30 days after discharge are unplanned suggests that rehospitalization is probably not primarily driven either by clinical practices (e.g., staged surgery) that cannot be efficiently rendered in one hospitalization or by profit-seeking division of services into multiple hospitalizations.

Fifth, the variation among states (Fig. 1) and hospitals suggests that improvement on a national scale may be possible, but the data do not show which practices cause the differences or whether the differences are exportable.

Medicare payments for unplanned rehospitalizations in 2004 accounted for about $17.4 billion of the $102.6 billion in hospital payments from Medicare,[21] making them a large target for cost reduction. (This cost estimate is derived by multiplying the 19.6% rehospitalization rate by 90%,

which represents the percentage of unplanned rehospitalizations, and multiplying that product by 96%, since DRG-based payments for rehospitalizations are 4% lower than those for index hospitalizations.) Convincing estimates of potential savings must await evaluation of large-scale improvement efforts.

Although the care that prevents rehospitalization occurs largely outside hospitals, it starts in hospitals. In a quarter of the hospitals, about 25% of the admissions are rehospitalizations that occur within 30 days after discharge. Cynics may suggest that preventing rehospitalization is not in the financial interest of hospitals, but our analysis suggests a more complex picture. Rehospitalizations may not be profitable for many hospitals. Although the average length of stay for rehospitalized patients was 0.6 day more than that for patients in the same DRG whose most recent hospitalization had been at least 6 months previously, DRG-based payments would be largely the same. For a hospital with excess capacity, there may be as much financial benefit from rehospitalizations as from first-time admissions, but for a hospital that manages its capacity more carefully, there may not.

Almost all hospitals will need help in gauging their performance with respect to rehospitalizations, because they have no access to data on the 20 to 40% of their patients who are rehospitalized elsewhere. Only holders of all-hospital discharge data, such as governments and other third-party payers, have the ability to track patients across providers and systems. Medicare could help by providing data on all Medicare rehospitalizations (suitably de-identified) to help hospitals and communities better understand their performance.

Our analysis generally confirms Anderson and Steinberg's findings regarding the value of demographic factors in predicting the risk of rehospitalization,[6] but it shows that previous rehospitalization, a longer index hospitalization as compared with the norm for the DRG, the need for dialysis, and the DRG to which the patient is assigned at the end of the stay are more powerful predictors. However, when the typical patient has almost two chances in three of being rehospitalized or of dying within a year after discharge, it is probably wiser to consider all Medicare patients as having a high risk of rehospitalization. For example, ensuring that a follow-up appointment with a physician is scheduled for every patient before he or she leaves the hospital is probably more efficient than trying to identify high-risk patients and arranging follow-up care just for them.

Rehospitalization is a frequent, costly, and sometimes life-threatening event that is associated with gaps in follow-up care. We are beginning to understand that the rate of rehospitalization can be reduced with the implementation of more reliable systems, but it would be premature to predict how much reduction can be achieved. Although the rehospitalization rate is often presented as a measure of the performance of hospitals, it may also be a useful indicator of the performance of our health care system.[22] From a system perspective, a safe transition from a hospital to the community or a nursing home requires care that centers on the patient and transcends organizational boundaries. Our purpose in this report has been to strengthen the empirical foundation for designing and providing such care.

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Appendix II – Expanded Description of PPR Logic and Definition of Key Terms (from the 3M Health Information System PPR Overview)

3M™ Health Information Systems

Potentially Preventable Readmissions Classification System

Methodology Overview

3M

GRP-139 05/08

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This manual was written, designed, and produced by the Documentation Department of 3M Health Information Systems.

Contents

Contents

Potentially Preventable Readmissions: A Classification System for Identifying Potentially Preventable Hospital Readmissions

THIS MANUAL PROVIDES AN OVERVIEW of the Potentially Preventable Readmissions (PPR) classification system–a clinically-based classification system that identifies acute care hospital readmissions that are potentially preventable, based on the computerized discharge abstract data. The output from the PPR classification system can be used to compute readmission rates across hospitals. Higher than expected readmission rates may indicate opportunities to improve the quality of care before and after discharge, as well as the coordination of services between the hospital and outpatient setting.

Introduction

Hospital readmissions have considerable potential as an important indicator of quality of care (Friedman and Basu, 2004). They have joined mortality rates and complication rates as promising quality measures that do not require intensive chart review, and can therefore serve to screen large numbers of records and provide a basis for comparing hospital performance.

Readmissions not only suggest quality problems, but also are expensive. It has been estimated that readmissions are responsible for a substantial proportion of expenditures for inpatient hospital care (Anderson and Steinberg, 1984; MEDPAC Report Chapter 5 June 2007).

Background

Readmissions have potential value as an indicator of quality of care because they may reflect poor clinical care and poor coordination of services either during hospitalization or in the immediate post discharge period (Halfon, et al, 2006, Kripalani, et al, 2007). The examination of readmissions can, therefore, focus attention on the critical time of the transition between inpatient and outpatient phases of treatment of an acute illness.

A readmission may also result from events during the initial hospital stay such as incomplete treatment of the underlying problem, or the development of a complication that only becomes evident after discharge. The relationship between quality of care and readmissions has been documented (Ashton et al., 1997; Hannan et al., 2003). Ashton concluded that an early readmission is significantly associated with the process of inpatient care and found that patients who were readmitted were roughly 55 percent more likely to have had a quality of care problem. Hannan found that 85 percent of readmissions following coronary bypass surgery were associated with complications directly related to the bypass surgery. There is also significant literature positing a relationship between variables such as availability of primary care, distance to the hospital, ethnicity, income, type of insurance and the probability of readmission (Ashton et al, 1997; Friedman and Basu, 2004).

The increasing interest in linking payment and quality (i.e. pay for performance) is in part a natural response to escalating health care costs. For readmission rates to serve as an indicator of hospital quality and performance, it is necessary to develop a methodology that identifies, in a clinically-precise manner, those readmissions that are potentially preventable.

Definitions

This section contains the terms and definitions that are used for identifying Potentially Preventable Readmissions.

Readmission

A readmission is a return hospitalization to an acute care hospital that follows a prior admission from an acute care hospital. Intervening admissions to non acute care facilities (e.g., a skilled nursing facility) are not considered readmissions and do not impact the designation of an admission as a readmission.

Readmission time interval

The readmission time interval is the maximum number of days allowed between the discharge date of a prior admission and the admit date of a subsequent admission in order for the subsequent admission to be a readmission.

Potentially Preventable Readmission

A Potentially Preventable Readmission (PPR) is a readmission (return hospitalization within the specified readmission time interval, as defined above) that is clinically-related (as defined below) to the initial hospital admission.

Clinically-related

Clinically-related is defined as a requirement that the underlying reason for readmission be plausibly related to the care rendered during or immediately following a prior hospital admission.

A clinically-related readmission may have resulted from the process of care and treatment during the prior admission (e.g. readmission for a surgical wound infection) or from a lack of post admission follow up (lack of follow-up arrangements with a primary care physician) rather than from unrelated events that occurred after the prior admission (broken leg due to trauma) within a specified readmission time interval.

Initial Admission

The Initial Admission is an admission that is followed by a clinically-related readmission within a specified readmission time interval. Subsequent readmissions relate back to the care rendered during or following the Initial Admission. The Initial Admission initiates a readmission chain.

Readmission chain A readmission chain is a sequence of PPRs that are all clinically-related to the Initial Admission. A readmission chain may contain an Initial Admission and only one PPR, which is the most common situation, or may contain multiple PPRs following the Initial Admission.

Excluded Admission An Excluded Admission is an admission that is globally excluded from consideration as both a readmission and Initial Admission due to the nature and complexity of the required follow up care (e.g., multiple trauma) or because the patient left against medical advice.

Non-event A Non-event is an admission to a non-acute care facility such as a nursing home or an admission to an acute care hospital for non acute care (e.g., convalescence). Non-events during the interval between an Initial Admission and a readmission are ignored.

Only Admission An Only Admission is an admission for which there is neither a prior Initial Admission nor a clinically-related readmission within the readmission time interval.

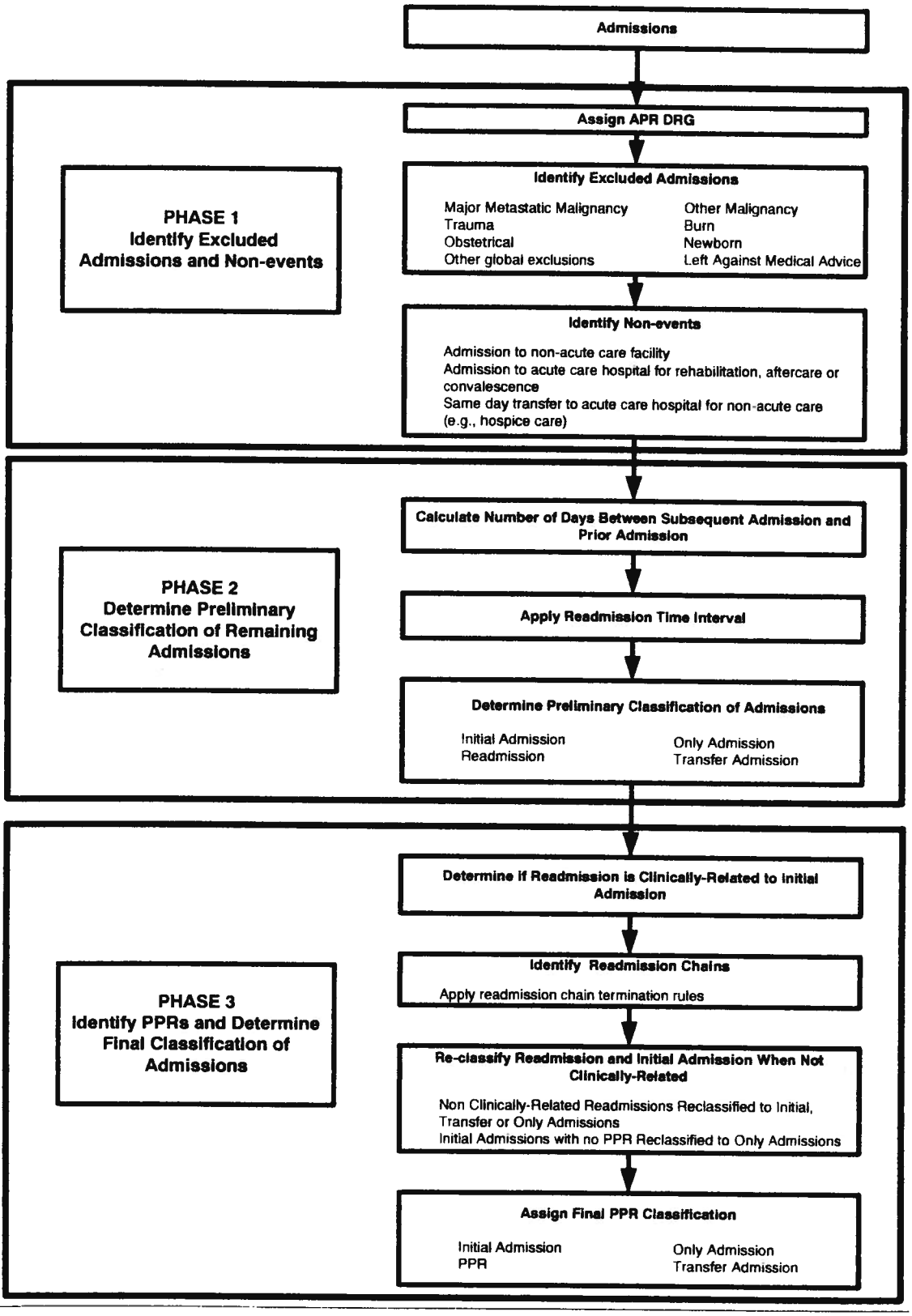
Transfer Admission Transfer Admissions are a special subset of Only Admissions that do not meet the criteria to be PPRs and have a discharge status of "transferred to an acute care hospital." They are not classified as an Initial Admission even if there is a subsequent readmission within the readmission time interval.

Overview of PPR Logic

This section provides and overview of the PPR logic. The logic can be divided into three phases:

1. Identify globally-excluded admissions and Non-events
2. Determine preliminary classification of admissions
3. Identify Potentially Preventable Readmissions and determine final classification of admissions

The following figure is a graphical representation of the three-phase PPR logic.


Admissions
Assign APR DRG
PHASE 1
Identify Excluded Admissions and Non-events
Identify Excluded Admissions
Major Metastatic Malignancy
Trauma
Obstetrical
Other global exclusions
Other Malignancy
Burn
Newborn
Left Against Medical Advice
Identify Non-events
Admission to non-acute care facility
Admission to acute care hospital for rehabilitation, aftercare or convalescence
Same day transfer to acute care hospital for non-acute care (e.g., hospice care)
PHASE 2
Determine Preliminary Classification of Remaining Admissions
Calculate Number of Days Between Subsequent Admission and Prior Admission
Apply Readmission Time Interval
Determine Preliminary Classification of Admissions
Initial Admission
Readmission
Only Admission
Transfer Admission
PHASE 3
Identify PPRs and Determine Final Classification of Admissions
Determine if Readmission is Clinically-Related to Initial Admission
Identify Readmission Chains
Apply readmission chain termination rules
Re-classify Readmission and Initial Admission When Not Clinically-Related
Non Clinically-Related Readmissions Reclassified to Initial, Transfer or Only Admissions
Initial Admissions with no PPR Reclassified to Only Admissions
Assign Final PPR Classification
Initial Admission
PPR
Only Admission
Transfer Admission

Phase 1–Identify globally-excluded admissions and Non-events

Phase one consists of using the PPR logic to identify globally-excluded admissions and Non-events.

Assign an APR DRG

Each admission is assigned to an All Patient Refined Diagnosis Related Group (APR DRG). APR DRGs classify patients according to their reason for admission and severity of illness (Averill, et al, 2002). APR DRGs assign patients to one of 314 base APR DRGs that are determined either by the principal diagnosis or, for surgical patients, the most important surgical procedure performed in an operating room. The base APR DRG represents the underlying reason for the hospital admission and is used in the PPR logic to identify Excluded Admissions and Non-events, and to define the clinical relationship between Initial Admissions and PPRs.

Each base APR DRG is then divided into four severity of illness (SOI) levels, determined primarily by secondary diagnoses that reflect both comorbid illnesses and the severity of the underlying illness. The combination of the base APR DRG and severity of illness level can be used for risk adjusting hospital PPR rates.

Identify global exclusions and Non-events

There are certain circumstances in which a readmission cannot be considered potentially preventable. Some types of admissions require follow-up care that is intrinsically clinically-complex and extensive, and for which preventability is difficult to assess. For these reasons admissions for major or metatastic malignancies, multiple trauma, and burns are not considered preventable and are globally excluded as an Initial Admission or readmission. In addition, neonatal and obstetrical admissions have unique attributes and only rarely lead to readmissions. As a consequence, readmissions following an Initial Admission for neonatal or obstetrical care are also globally excluded.

A second type of global exclusion relates to the discharge status of the patient in the Initial Admission. A hospitalization with a discharge status of "left against medical advice" is excluded as either an Initial Admission or readmission because under these circumstances, the hospital has limited influence on the care rendered to the patient. All types of globally-excluded admissions are classified as Excluded Admissions.

The following admissions are classified as Non-events:

- Admissions to non-acute care facilities
- Admissions to an acute care hospital for patients assigned to the base APR DRG for rehabilitation, aftercare, and convalescence
- Same-day transfers to an acute care hospital for non-acute care (e.g., hospice care)

Phase 2–Determine preliminary classification of admissions

To determine the preliminary classification of admissions, the logic first applies a readmission time interval, and then it classifies each admission.

Apply readmission time interval

Each admission is assessed to determine whether there is a readmission that occurs within the specified readmission time interval. A longer readmission time interval will classify more admissions as readmissions. For example, with a 30 day readmissions time interval a hospitalization that occurred 20 days following a prior admission would be considered a readmission, while with a 15 day readmission time interval it would not. Longer time intervals after the prior admission also increase the relative importance of the outpatient management of chronic diseases and decrease the likelihood that a readmission was related to the clinical care or discharge planning in the prior admission (Hannan et al, 1995).

Classify each admission

For the specified readmission time interval, each admission for a patient (not already classified as an Excluded Admission or Non-event) is preliminarily classified as one of four different types:

- Readmission
- Initial Admission
- Only Admission
- Transfer Admissions

The categorization of an admission as a readmission or an Initial Admission is highly dependent on the readmission time interval chosen.

The categorization of an admission also depends on the disposition of the patient at the time of discharge. An admission with a discharge disposition of transferred to another acute care hospital is eligible to be a PPR, but it is not eligible to be an Initial Admission because subsequent care is no longer under the control of the transferring hospital. An admission in which the patient died is also not eligible to be an Initial Admission since a readmission would not be possible.

Phase 3–Identify Potentially Preventable Readmissions and determine final classification of admissions

Phase 3 of the PPR logic consists of the following tasks:

- Determine if a readmission clinically-related
- Identify readmission chains
- Terminate readmission chains for clinically-unrelated admissions
- Reclassify clinically-unrelated Initial Admissions and readmissions

Determine if a readmission is clinically-related

A readmission is considered clinically-related to the Initial Admission if the reason for the readmission falls into one of three categories for medical readmissions and one of two categories for surgical readmissions. Readmissions for medical reasons are much more common than readmissions for surgical procedures, regardless of the reason for the Initial Admission. The three categories of clinically-related medical readmissions are as follows:

- A medical readmission for a continuation or recurrence of the reason for the Initial Admission, or for a condition closely related to the reason for the Initial Admission (e.g. a readmission for diabetes following an Initial Admission for diabetes).
- A medical readmission for an acute decompensation of a chronic problem that was not the reason for the Initial Admission but could have resulted from inadequate care during the Initial Admission or inadequate outpatient follow-up care (e.g. a readmission for diabetes in a patient whose Initial Admission was for an acute MI).
- A medical readmission for an acute medical problem that could have been a consequence of care provided in the Initial Admission. For example, in a patient readmitted for a urinary tract infection ten days after a hernia repair, the infection was likely related to the use of a foley catheter during the Initial Admission.

Surgical readmissions were generally considered not preventable unless they met one of the two criteria for a clinical relationship to the Initial Admission:

- A readmission for a surgical procedure that addressed a continuation or a recurrence of the problem causing the Initial Admission (a patient readmitted for an appendectomy following an Initial Admission for abdominal pain and fever).
- A readmission for a surgical procedure that addressed a complication resulting from care during the Initial Admission (a readmission for drainage of a post-operative wound abscess following an Initial Admission for a bowel resection).

A readmission that did not fit one of these categories (e.g., a readmission for trauma) was classified as a clinically-unrelated readmission and therefore not potentially preventable, (i.e. not a PPR).

APR DRGs were used as the basis for establishing the clinical relationship between the Initial Admission and the readmission. A matrix was created in which there were 314 rows representing the possible base APR DRGs of the Initial Admission, and 314 columns representing the base APR DRG of the readmission. Each cell in the matrix then represented a unique combination of a specific type of Initial Admission and readmission. Clinical panels applied criteria for clinical relevance and preventability to the combination of base APR DRGs in each cell. The end result was that each of the 98,596 cells contain a specification of whether the combination of the base APR DRG for the Initial Admission and for the readmission were clinically-related and therefore potentially preventable. This matrix operationalized the definition of "clinically-related" in the PPR logic.

In addition to the "Clinically-Related" PPR APR DRG matrix, all readmissions with a principal diagnosis of trauma are considered not potentially preventable.

Identify readmission chains

In some instances, two or more readmissions will all be related to a single Initial Admission. A readmission chain is essentially a sequence of clinically-related admissions. If for a given readmission, the preceding admission is itself a readmission related to a prior Initial Admission, then the most recent readmission is assessed to determine if it is clinically-related to the Initial Admission that initiated the readmission chain, rather than to the readmission immediately preceding it.

In a readmission chain, the total time period encompassed can exceed the specified readmission time interval. This is because the most recent readmission must be within the readmission time interval of the readmission immediately preceding it, not the Initial Admission. For example, if the readmission time interval is 15 days and there are two readmissions related to an Initial Admission, both 14 days apart, the second readmission is still considered a readmission related to the Initial Admission even though it occurred 28 days after the Initial Admission to which it is clinically-related. Thus, a chain of related readmissions can encompass a time interval beyond the specified readmission time interval.

Terminating a readmission chain

A readmission that is not clinically-related to the Initial Admission in a readmission chain terminates the readmission chain. A readmission that has a discharge status of transferred to an acute care hospital, left against medical advice or died terminates a readmission chain. The occurrence of an Excluded Admission also terminates a readmission chain.

Reclassify clinically-unrelated Initial Admissions and readmissions

If a readmission is not clinically-related to the Initial Admission, it is not considered a PPR and is re-classified as an Initial Admission, Transfer Admission, or an Only Admission. If the readmission is re-classified as an Initial Admission, it could in turn initiate a new readmission chain. Additionally, if there is an admission that was preliminarily classified as an Initial Admission because it preceded a clinically-unrelated readmission, it is re-classified from an Initial Admission to an Only Admission.

Readmission Rates

The PPR Grouper Software classifies each hospital admission as a PPR, Initial Admission, Transfer Admission, Non-event, Excluded Admission, or an Only Admission. The output from the PPR Grouper software can be used to compute PPR rates by computing the ratio of the number PPR chains divided by the sum of admissions classified as an Initial Admission or an Only Admission.

Non-events, Transfer Admissions, Only Admissions that died, and Excluded Admissions are ignored in the computation of a PPR rate. PPR rates can be computed for readmissions to any hospital or can be limited to readmissions to the same hospital only.

Since a hospital PPR rate can be influenced by a hospital's mix of patient types and patient severity of illness during the Initial Admission any comparisons of PPR rates must be adjusted for case mix and severity of illness. A risk adjustment system such as APR DRGs is necessary for proper comparisons of readmission rates. Higher than expected readmission rates can be an indicator of quality of care problems during the initial hospital stay or with the coordination of care between the inpatient and outpatient setting.

Summary

A readmission that is clinically-related to the prior Initial Admission or clinically-related to the Initial Admission in a readmission chain is a Potentially Preventable Readmission. A higher than expected rate of PPRs means that the readmissions could reasonably have been prevented through any of the following:

- Provision of quality care in the initial hospitalization
- Adequate discharge planning
- Adequate post discharge follow-up
- Coordination between the inpatient and outpatient health care team

The end result of the application of the PPR logic is the identification of the subset of Initial Admissions that were followed by PPRs. Admissions that are at risk for having a readmission but were not followed by a subsequent readmission (such as Only Admissions), are also identified. The identification of Initial Admissions, PPRs and at-risk Only Admissions allows meaningful PPR rates to be computed.

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Appendix III – Formulae for calculation of chain weights, and actual and expected values

Let W_i be the case mix weight for a case in APR-DRG/SOI i.

If chain j has n readmissions with weights w_{jk}, k=1,..,n, then:

c_j = chain weight for chain j = $\Sigma_k w_{jk}$

where the index k runs from 1 to n.

The expected chain weight for a chain starting with a discharge with an initial APR-DRG/SOI of i is:

$e_i = \Sigma_j c_j / n_i$

where the summation runs over all the readmission chains starting with an initial APR-DRG/SOI of i and n_i is the number of readmission chains starting with an initial APR-DRG/SOI of i.

Assign an expected chain weight to each readmission chain , and an expected chain weight of zero to each only admission, call these g_i.

Calculate the statewide expected chain weight for each only or initial admission in APR-DRG/SOI i. This is:

$$f_i = e_i \times \frac{\text{(\# initial admissions with APR-DRG/SOI i)}}{\text{(\# of initial or only admissions with i)}}$$

For all APR-DRG/SOI i, assign f_i to each initial or only admission i.

The readmission index for a hospital is then:

$\Sigma g_n / \Sigma f_n$, where n runs over all initial or only admissions at the hospital.

Draft Recommendation for Revisions to the Reasonableness of Charges (ROC) Methodology

Health Services Cost Review Commission
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May 5, 2010

This document represents a draft recommendation to be presented to the Commission on April 14, 2010 for discussion purposes only. Comments should be sent to Robert Murray, Health Services Cost Review Commission, 4160 Patterson Avenue, Baltimore, MD 21215 by June 1, 2010.

Update to the Staff Draft Recommendation

This draft recommendation is currently unchanged from the recommendation presented at the April meeting of the HSCRC. Staff has conducted one additional ROC/ICC Work Group Meeting. In light of that discussion, staff is reconsidering possible modifications to recommendations on the inclusion of Kidney transplants into the CPC and ROC and peer group recommendations.

Staff will have a final ROC/ICC recommendation for the Commission's June 9, 2010 public meeting.

Background

ICC/ROC Methodology:

The Commission is required to approve reasonable rates for services offered by Maryland hospitals. The 'Reasonableness of Charges' (ROC) methodology is an analysis that allows for the comparison of charges at individual hospitals to those of their peer hospitals after various adjustments to the charge data have been applied. Hospitals with adjusted charges that are high compared to their peers are subject to rate decreases through spend-downs and/or negative scaling of the Update Factor. Conversely, hospitals with adjusted charges that are low compared to their peer hospitals may be allowed rate increases through positive scaling of the Update Factor based on their ROC position. The inter-hospital cost comparison (ICC) used for full rate reviews is based on the ROC methodology with additional adjustments for profit and productivity when establishing a peer standard for comparison. The ROC comparison is conducted annually in the spring with ROC position scaling results impacting the July rate update for the following rate year.

ICC/ROC Workgroup:

Each year, the HSCRC solicits requests from the Maryland hospital industry for modifications to the ICC/ROC methodologies. A summary of the letters submitted on June 1, 2009 is included in Appendix A. Each fall, the ICC/ROC Workgroup, comprised of hospital, payer representatives and Commission staff, meets to discuss the ICC/ROC methodologies and the proposed modifications. This year, the ICC/ROC Workgroup met eleven times over a three month period and the following draft recommendations are the result of those deliberations. A final recommendation regarding changes to the ICC/ROC methodology will be presented at the May Commission meeting.

Issues and Draft Recommendations

Peer Groups

The current peer group methodology uses 5 groups (based on size and location of hospital) for comparison including a virtual peer group for the Academic Medical Centers (AMCs). These peer groups were originally developed to adjust for differences in cost structures of hospitals which may not have been captured in the ROC adjustments used at that time. Because the Commission has implemented more refined adjustments for case-mix, labor market, and disproportionate share over the last several years, staff believes that this level of peer-grouping is no longer necessary. At the March Commission Meeting, staff proposed a move to three peer groups (major teaching, minor teaching, and non-teaching) based on the teaching intensity of the hospital as measured by residents per case-mix adjusted equivalent inpatient cases. In an ICC/ROC Workgroup meeting subsequent to the March recommendation, there was further discussion regarding the appropriate configuration of the two teaching peer groups. Because agreement was not reached regarding the appropriate division between major teaching and minor teaching, staff recommends that the current 5 peer groups be maintained. The payer representatives proposed that the Commission develop a national peer group for determination of reasonableness of charges for the Academic Medical Centers.

Recommendation: Staff recommends continuation of the current peer group methodology for the spring 2010 ROC. Staff also recommends that a group of industry representatives be assembled in May

of 2010 in order to begin work to identify a national AMC peer group for use in next year's ROC (spring 2011).

Comprehensive Charge Target (CCT)

As approved by the Commission last year, the CCT is the starting point for the ROC methodology and is established by blending the inpatient charge per case (CPC) target and outpatient charge per visit (CPV) target. Implementation of the CPV was delayed until FY2011 and, therefore, CPV targets were not established for FY2010.

Recommendation: Staff recommends that the CPV used in the 2010 ROC be established as follows: Calculate a CPV for each hospital by using FY2009 outpatient data under the expanded CPV methodology that had been in place for FY2010. Inflate the established CPV by each hospital's outpatient rate update for FY2010 and blend the CPV and CPC targets to establish the CCT under the blending methodology approved last year.

Application of Indirect Medical Education (IME) and Disproportionate Share (DSH) Adjustment

Under the current ROC methodology, the IME and DSH adjustments are applied as a deviation from the statewide average. Therefore, using IME as an example, non-teaching hospitals with no IME costs receive an upward adjustment to their CCT for the percent that they differ from the statewide average IME amount. Staff believes that it is technically correct and makes more intuitive sense to apply the costs associated with IME and DSH as a direct strip from hospital charges. Under this change, again using IME as an example, non-teaching hospitals would have no ROC adjustment for IME costs. At the end of last year's ICC/ROC Workgroup discussions, staff proposed this technical correction to the application of the IME and DSH adjustments. However, at that time, Workgroup members stated that it was too late in the discussion process to make this change.

Recommendation: Staff recommends the implementation of a technical correction to the IME and DSH adjustments that applies the adjustment as a direct strip instead of a deviation from the average statewide costs associated with IME and DSH.

Physician Recruitment, Retention, and Coverage

A subset of community hospitals, known as G-9, offered a review of the costs associated with providing physician subsidies for physician recruitment, retention and coverage costs at hospitals in non-urban areas. The G-9 hospitals proposed that the Commission consider defining reasonable recruitment, retention, and coverage expenditures as elements of regulated hospital cost and adjust for these costs in the ROC in a manner similar to the direct medical education adjustment. Because physician services are not regulated by the HSCRC, staff does not agree that physician subsidies associated with recruitment, retention, and coverage should be considered elements of cost which are adjusted for in the ROC. However, staff agrees that the issue of physician subsidies and the impact on community hospitals needs further study.

Recommendation: Staff recommends no proposed adjustment in the ROC methodology associated with physician recruitment, retention, and coverage costs. Staff also recommends that a concerted study be initiated to better understand physician payments associated with physician recruitment, retention, and coverage at Maryland hospitals.

Profit and Productivity Adjustment in the ICC

The cost standard used for full rate reviews in the ICC methodology begins with the hospital's peer group ROC-adjusted CCT and then excludes the peer group's average profit, and includes a 2% productivity adjustment. The Maryland Hospital Association (MHA) contended that the current ICC policy is too restrictive for hospitals to access rate relief. The MHA proposed that during full rate setting the methodology should add back the lower of the target hospital's profit or 2.75% (the Financial Condition Policy's target for operating margins). The MHA also proposed that the 2% productivity adjustment be phased-in over a multi-year period, or that a national standard be identified and used for the productivity adjustment.

Hospital payment levels and costs have increased more rapidly in Maryland compared to the rest of the nation over the last 5 years. In FY05, Maryland was 2.58% below the U.S. in Net Operating Revenue per EIPA and moved to 1.90% above the U.S. in FY09 for this measure. For the same time period, Maryland went from 4.28% to 0.38% below the U.S. for Net Patient Revenue per EIPA and 3.65% below to 0.71% above the U.S. for Cost per EIPA. Because of this erosion of Maryland hospital payments and costs compared to the U.S., staff believes that it would not be the appropriate time to move to a less restrictive standard in the ICC methodology.

Recommendation: Staff recommends no change to the profit and productivity adjustments in the ICC.

Capital Adjustment

CareFirst and Kaiser proposed a change to the current capital adjustment in the ROC and a change to how capital is handled in rates in terms of the variable cost factor. With regard to the ROC adjustment, the current methodology adjusts for the percentage of costs that are related to capital using 50% of the hospital-specific capital costs plus 50% of the statewide capital costs. CareFirst and Kaiser proposed a ten year phase-in to move from the 50/50 standard to 100% statewide costs plus 0.5%. At the end of the ten year phase-in period, there would be no ROC adjustment for capital.

With regard to capital and the variable cost factor (currently at 85%), Care First and Kaiser proposed that CON eligible projects be subject to the variable cost factor for three years after first use as follows:

A. 100% variable if hospital takes "pledge" to not file rate application
B. 100% variable if CON was filed when variable cost factor was 100%, and hospital did not file rate application.
C. 100% variable for hospitals that filed a CON when variable cost factor was 85%, and hospital did not file a rate application.
D. Current cost factor applied for hospitals that filed a rate application generating additional dollars in rates for capital.

Staff is supportive of the concept of moving to a statewide standard for capital over a ten year period. Staff also supports the idea of a less restrictive variable cost factor to fund capital projects in place of funding capital through rate increases.

Recommendation: Staff recommends using a ten year phase-in to move from the current capital cost standard of 50% hospital-specific plus 50% statewide to 100% statewide plus 0.5%. CON eligible projects would be allowed 100% of variable costs for three years after first use if hospital pledges to not file a rate application or if hospital filed CON previously and did not file rate application and pledges not to file in future.

Exclusions

Currently, liver transplants, heart and/or lung transplants, pancreas transplants, bone marrow transplants, and kidney transplants are excluded from the CPC constraint system because past analyses indicated that there was significant variation in charges within the corresponding APR-DRGs for these cases. Staff recently analyzed the charge variation for each of the transplant APR-DRGs using FY09 inpatient data. The liver, heart, pancreas, and bone marrow transplant cases continue to experience wide variations in charges and length of stay and should continue to be excluded from the CPC system. However, analyses of the kidney transplant cases indicate that there is very little variation in charges, as measured by the coefficient of variation, within the kidney transplant APR/SOI cells. At the March Commission Meeting, staff recommended that the kidney transplant cases be included under the CPC constraint system. In a meeting subsequent to the March recommendation, representatives from the Academic Medical Centers provided Commission Staff a more detailed review of the differences in costs associated with variations in recipient and donor types within the kidney transplant APR/SOI cells.

Recommendation: Staff recommends that kidney transplant cases continue to be excluded from the CPC constraint system in FY2011.

Case-mix Lag

Under current Commission policy, case-mix is measured in "real time", meaning that the calculation of case-mix change for the previous rate year and calculation of the base CMI for the new rate order use discharge data from the July-June period immediately prior to the new rate year. For example, the base CMIs in the rate orders for the fiscal year that began July 1, 2009 were calculated using discharge data from July 1, 2008 thru June 30, 2009. Discharge data from the previous rate year is not available until, at the earliest, 4 months after the beginning of the new fiscal year. Therefore, the measurement of case-mix in real time causes unavoidable delays in issuing rate orders which, in turn, impacts hospitals' ability to achieve CPC compliance. Staff recommends that case-mix change and base CMI be measured using a three month lag in the data period. The data period used to calculate case-mix change for FY10 will remain the 12-months ending June 30, 2010. However, the base CMI for the FY11 rate orders will be based on discharge data from April 1, 2009 – March 31, 2010 and case-mix change for FY11 will be measure using discharge data from April 1, 2010 – March 31, 2011. There are technical details associated with this change that Commission staff plan to discuss at MHA's Technical Issues Workgroup over the next several months.

Recommendation: Staff recommends moving to a 3-month lag in the data period used to measure hospital case-mix.

Outlier Methodology

Under the current HSCRC high charge outlier methodology, a hospital-specific high charge outlier threshold is calculated for each APR/Severity cell. Charges above the established threshold are paid based on unit rates and not subject to the incentives of the HSCRC per case payment system.

The G-9 hospitals proposed a change to the HSCRC outlier methodology to address the following issues that they cite as consequences of the current methodology:

- Hospital charges could be structured to increase outlier charge levels
- Outlier patients are not protected by the financial incentives of the per case payment system
- Compliance with HSCRC rate orders are complicated by the segregation of outlier charges in compliance calculations

The G-9's proposed outlier methodology establishes a prospective allowance for outlier charges using a regression that is shown to predict each hospital's percentage of outlier costs with substantial accuracy. The following independent variables are used from previous year's data: the hospitals' proportion of vent cases, the hospitals' expected outlier proportion, and an AMC dummy variable. The result of the regression for each hospital would equal the hospital's outlier allowance for the succeeding year. A hospital's rate year CPC target would be increased by the prospective outlier allowance. In ROC comparisons, each hospital's target would be adjusted for the amount of the prospective outlier charges.

Although staff believes that certain aspects of the G-9 outlier proposal have merit, more study and deliberation is needed regarding this methodology.

Recommendation: Staff recommends the continuation of the current outlier methodology in FY2011.

ROC Scaling and Spend-Downs

At this time, staff recommends that spend-downs not be initiated for the 2010 ROC results. Staff recommends that a significant portion of revenue be scaled for ROC position, and that the structure of scaling be continuous. The Payment Workgroup will ultimately decide the amount of revenue to be scaled. Staff also recommends that the Total Patient Revenue (TPR) hospitals (McCready and Garrett) be eligible for positive ROC scaling but would not be negatively scaled.

Recommendation: Staff recommends that the amount of scaling for 2010 ROC results be significant and that the structure of the scaling be continuous. Staff also recommends that TPR hospitals should be eligible for positive scaling but not receive negative scaling based on ROC results. No spend-downs based on 2010 ROC results are recommended.

Summary of Draft Recommendations for Changes to the ICC/ROC Methodology

Peer Groups: Staff recommends continuation of the current peer group methodology for the spring 2010 ROC. Staff also recommends that a group of industry representatives be assembled in May of 2010 in order to begin work to identify a national AMC peer group for use in next year's ROC (spring 2011).

CPV in Blended CCT: Staff recommends that the CPV used in the 2010 ROC be established as follows: Calculate a CPV for each hospital by using FY2009 outpatient data under the expanded CPV methodology that had been in place for FY2010. Inflate the established CPV by each hospital's outpatient rate update for FY2010 and blend the CPV and CPC targets to establish the CCT under the blending methodology approved last year.

Application of IME and DSH Adjustment: Staff recommends the implementation of a technical correction to the IME and DSH adjustments that applies the adjustment as a direct strip instead of a deviation from the average statewide costs associated with IME and DSH.

Physician Recruitment, Retention, and Coverage: Staff recommends that a concerted study be initiated to better understand physician payments associated with physician recruitment, retention, and coverage at Maryland hospitals.

Capital: Staff recommends using a ten year phase-in to move from the current capital cost standard of 50% hospital-specific plus 50% statewide to 100% statewide plus 0.5%. CON eligible projects would be allowed 100% of variable costs for three years after first use if hospital pledges to not file a rate application or if hospital filed CON previously and did not file rate application and pledges not to file in future.

Exclusions: Staff recommends that kidney transplant cases continue to be excluded from the CPC constraint system in FY2011.

Case-mix Lag: Staff recommends moving to a 3-month lag in the data period used to measure hospital case-mix.

Outlier Methodology: Staff recommends the continuation of the current outlier methodology in FY2011.

Scaling and Spend-downs for 2010 ROC: Staff recommends that the amount of scaling for 2010 ROC results be significant and that the structure of the scaling be continuous. Staff also recommends that TPR hospitals should be eligible for positive scaling but not receive negative scaling based on ROC results. No spend-downs based on 2010 ROC results are recommended.

Appendix A

Summary of ICC/ROC Letters

The purpose of this document is to provide a brief overview of the issues addressed in letters submitted to the Commission June 1, 2009 regarding methodology issues to be discussed in the ICC/ROC Workgroup for the coming rate year.

Peer Groups

St. Joseph Medical Center requests that the current peer groups be replaced with a statewide comparison of hospitals.

Atlantic General requests a change from the current peer groups to a statewide group or teaching/non-teaching groups.

The hospitals in 'G-9' request that the current peer groups be considered for revision.

CareFirst and Kaiser Permanente request that there be just two peer groups: 1) a statewide peer group excluding the Academic Medical Centers; and 2) a national peer group for Johns Hopkins Hospital and the University of Maryland Medical Center.

MedStar Health and St. Agnes Hospital do not want peer groups eliminated but request that the current structure be reviewed to determine if the methodology meets the original goal.

Outlier Methodology

The Johns Hopkins Health System, University of MD Medical System, CareFirst and Kaiser request that the Commission staff revisit the outlier methodology to determine if the original objectives of this policy are being met and incentives are correct.

G-9 hospitals believe that the low charge outliers system is unnecessary, and that the incentives related to the payment for high charge outliers exacerbate the problem of complying with the waiver and, therefore, they support a review of the outlier policy.

Labor Market Adjustment

The Johns Hopkins Health System, the University of MD Medical System, and MedStar Health request a systemic review of the policy as well as suggest that a more detailed review of submitted data be put in place to ensure that the data are reasonable.

Disproportionate Share Adjustment

MedStar Health and St. Agnes Hospital request that the current DSH adjustment be re-assessed in order to confirm the measure's validity; to establish the stability over time; to understand if issues associated with urban locations are addressed; and to compare to possible alternatives.

Direct Medical Education

The Johns Hopkins Health System and the University of Maryland Medical System request that the current methodology for calculating the direct strip for DME (based on costs reported in the P4 and P5 schedules) is re-assessed due to vague P4 & P5 instructions related to ACGME approved residents and fellows which results in inconsistent reporting across hospitals.

Indirect Medical Education

CareFirst and Kaiser request that any future adjustments to the IME coefficient be based on the Commission's Update, and that the IME methodology be adjusted to support a greater amount of relative training of Primary Care Physicians who will provide care in Maryland.

Physician Coverage

The G-9 hospitals request that the differential accounting and treatment in ICC/ROC of the coverage costs at teaching hospitals (use of residents with costs carved out in DME adjustment) versus non-teaching hospitals (employed or subsidized attending staff costs not carved out) be addressed.

Partial Rate Review for Capital and Full Rate Reviews

CareFirst and Kaiser request that the partial rate process for capital be reviewed, and that the Commission consider transitioning to a statewide capital methodology that does not adjust rates for a hospital's position in its capital cycle.

The Johns Hopkins Health System and University of MD Medical System request that the partial rate process for capital be maintained; that a reasonable profit standard (2.75%) be included; and that productivity strips be eliminated from the partial rate and ICC methodologies.

The G-9 hospitals request that the criteria governing partial and full rate applications be reviewed by the Workgroup.

Scaling and Spend-Downs

CareFirst and Kaiser request an increase in the level of scaling next year and that spend-downs are resumed no later than July 1, 2010.

The G-9 hospitals request that the Workgroup review various approaches to scaling and spend-downs, including a discussion regarding the elimination of spend-downs.

Clinic Volumes

CareFirst and Kaiser request that clinic volumes, especially for multi-person behavioral health clinics, be reviewed.

Non-Comparable Services

CareFirst and Kaiser request that the Workgroup discusses objective methods of identifying and evaluating the cost of a particular service when that service differs substantially at a particular hospital compared to the peer group.

PPC Methodology

The G-9 hospitals request that the Workgroup consider issues associated with the implementation of the PPC methodology.

Case Mix Governor and Volume Adjustment

The G-9 hospitals suggest that the case-mix governor, in combination with the volume adjustment, places an undue financial burden on hospitals with both case-mix and volume increases, and that consideration should be given to handling case-mix and volume through a single measure of the hospitals' service level.

MedStar Health requests that policy decisions that impact the ROC, such as the case-mix governor, be evaluated.

Availability of Data

MedStar Health, Johns Hopkins Health System, and the University of MD Medical System request that future reports, such as those pertaining to the ROC and UCC, include the data used by staff to conduct its calculations and that a two-week comment period be implemented to allow hospitals the opportunity to correct the data in the event that errors are present.

Prospective Payment and System Stability

St. Joseph Medical Center, the Johns Hopkins Health System and the University of MD Medical System state that certain policies, such as case-mix restrictions without clear prospective rules for how case-mix will be accrued, undermine the prospective nature of the Maryland system. These hospitals also state that constant change in the system, such as revisions to the CPV to include more revenue or the proposed implementation of the PPC methodology, undermine the stability of the system.

Final Staff Recommendation Rate Methods and Financial Incentives relating to One Day Length of Stay and Denied Cases in the Maryland Hospital Industry

Health Services Cost Review Commission
May 5, 2009

This document represents a revised final recommendation to be presented to the Commission on May 5, 2010.

Introduction and Background - One Day Stay and Denied Cases

Introduction

This document relates to recommended changes in rate incentives associated with so-called One Day Stay (ODS) cases reimbursed through the Maryland rate setting methods as determined by the Health Services Cost Review Commission (the Commission or HSCRC). This document also discusses modifications to the calculation of hospital Charge per Case (CPC) constraints to appropriately account for denied cases in the establishing of approved revenue.

For purposes of this recommendation, One Day Stay or ODS acute care cases are defined as cases that are admitted to an acute inpatient unit and have either a zero or one-day length of stay. Denied cases refer to patients who were originally admitted to an inpatient unit, but after additional review (and any associated hospital appeal) it was determined that the decision to admit was not medically necessary. Denied cases may have stayed zero, one or more than one days

Background

Basis for this Review and Recommendation

This issue is currently a focus of discussions between both HSCRC staff and industry representatives due to developments both nationally and internal to Maryland:

1) ODS cases have recently been a focus of the national Medicare Recovery Audit Contractor ("RAC") initiative currently authorized by federal law to identify areas of both overpayment and underpayment to acute care hospitals by the Medicare program. The RAC process was initially piloted in several states but will be expanded to all states (including Maryland) by January 2010. ODS cases have been a particular area of focus for the RAC because of concern regarding whether or not these admissions meet Medicare's medical necessity criteria. In RAC audits in pilot states, large numbers of ODS cases were denied based on RAC determinations that the cases should not have been admitted for inpatient care because they were appropriate for outpatient observation or other less-intensive (and less costly – from Medicare's perspective) forms of care. ODS cases by chest pain patients are an example of a condition targeted by RACs;

2) During CY 2009, several private payers (likely in reaction to the focus on one-day stays by Medicare nationally, contacted the HSCRC staff regarding the wide variation in the use of outpatient observation services by Maryland hospitals. These private payers believed that Maryland hospital practices were leading to an overuse of inpatient levels of care for patients that could be treated as observation cases. Overuse of inpatient services for cases that could be treated on an outpatient observation basis results in excess medical cost and potential additional clinical risks for patients (exposure to generally higher rates of complications for inpatient cases than for outpatient cases). ODS cases also can be surgical cases that are admitted and the surgery is performed in an inpatient basis (instead of being performed on an ambulatory basis);

3) Additionally, over the summer of 2009 staff became aware of anomalous reporting and handling (for purposes of hospital Charge per Case development) of denied (based on medical necessity criteria) inpatient cases. This issue and the associated hospital reimbursement implications will also be discussed and addressed in the staff's recommendations for changes to HSCRC payment policies.

The overuse of inpatient services for medical and surgical cases arguably inflates the overall cost of hospital care in Maryland. There is also evidence that suggests that there may be negative quality of care related implications associated with excessive inpatient treatment. These considerations along with the three factors noted above, caused the HSCRC to analyze Maryland hospital performance on ODS cases, both over time and relative to hospitals in other states.

Maryland Relative Performance on ODS Cases (as a proportion of total cases)

Historically, Maryland hospitals have (relative to national standards) admitted a much higher percentage of ODS (both medical and surgical) cases as a proportion of total inpatient admission, relative to hospitals nationally.[1] **Table 1** provides a comparison of proportions of one-day LOS admissions as a percentage of state-wide admissions for the years 2003 – 2008 for both all-payers and for Medicare. The table shows Maryland admits 6% more one-day stays overall and 4% more Medicare one-day stay cases than hospitals in the rest of the US.

Table 1

Maryland Proportion of 1 Day LOS Cases
as a % of Total Statewide Cases

	2003	2004	2005	2006	2007	2008
Maryland Medicare Cases	16.58%	16.99%	17.54%	17.83%	17.59%	17.49%
US Medicare Cases	13.30%	13.44%	13.48%	13.75%	13.68%	13.40%
Difference	3.28%	3.55%	4.06%	4.08%	3.91%	4.09%

Maryland All-Payer (excluding newborns)	22.48%
US All-Payer (estimateHCUP data excluding newborns)	16.58%
Difference	5.90%

Maryland (All Payer)	21.40%
New York State (All Payer data)	15.30%
	6.10%

Source of the Medicare data: National Medpar file 2003-2008

[1] Staff's analysis of national case mix data sample available through the HCUP program for 2006 indicated that Maryland appears to be the 5th highest state in terms of ODS cases as a proportion of all inpatient admissions.

This difference in admitting practices also does not appear to be regional phenomena. **Table 2** shows that Maryland hospitals also admit much higher proportions of one-day LOS cases than do hospitals in neighboring areas.

Table 2

	Maryland Proportion of 1 Day LOS Cases as a % of Total Statewide Cases (Medicare) - Region (2007)		
	Total Cases	1 Day Cases	Proportion
Maryland	255,153	45,013	17.60%
Washington DC	36,053	4,548	12.61%
Delaware	40,701	4,733	11.63%
Pennsylvania	559,799	69,507	12.42%
Virginia	285,149	36,001	12.63%

The comparisons of Maryland hospital less efficient performance on 1 Day LOS cases versus hospitals nationally is further substantiated by data provided by a national private insurer, United Health Care. According to United's national data, Maryland has the second highest use of inpatient hospitalization in the country, for cases that met United's criteria for treatment on an observation basis. The Maryland percentage is 62% compared to the average of United's national case totals of 36%.

CareFirst Experience with One Day Admission Cases in Maryland vs. Other Jurisdictions

During the course of Work Group Discussions, CareFirst also provided some information regarding its experience in Maryland, Washington DC and Virginia with hospitals' practices related to the use of Observation services vs. admitting patients for inpatient care. These data (shown in Appendix I) show the different in clinical treatment patterns between Maryland hospitals and hospitals outside of Maryland. Stent cases inside of Maryland were admitted 97% of the time and treated on an outpatient basis only 3% of the time, whereas hospitals in the District of Columbia and Virginia admitted these type of patients only 27% and 13% of the time (respectively) and treated stent patients 73% and 87% of the time on an outpatient basis (respectively). These data are summarized in **Table 3** below.

Table 3

Combined Summary of Cases For Stent

Inpatient and Outpatient

Summary by Jurisdiction (CareFirst Maryland)

Inpatient Summary - Average per case for Stents
DC, VA and Select MD Hospitals CY 2008 - 02/2009
(MD hospitals include JHH, UMMS, St. Joseph's, WAH)

Outpatient Summary - Average per case for Stents
DC, VA and Select MD Hospitals CY 2008 - 02/2009
(MD hospitals include JHH, UMMS, St. Joseph's, WAH)

		Inpatient	Outpatient	Total	Ratio of Inpatient to Outpatient Stents: Inpatient	Outpatient
DC	Cases	119	328	447	26.62%	73.38%
	Avg. billed amt	$42,164	$20,242			
	Avg Allowed amt	$19,470	$10,946			
MD	Cases	1,206	35	**1,241**	**97.18%**	**2.82%**
	Avg. billed amt	$13,818	$11,258			
	Avg Allowed amt	$13,214	$11,044			
VA	Cases	32	209	241	13.28%	86.72%
	Avg. billed amt	$35,184	$20,723			
	Avg Allowed amt	$19,405	$10,103			
Total No. Cases		1,470	776			
Total Avg Billed Amt.		$16,228	$15,107			
Total Avg Allowed Amt.		$13,776	$8,291			
Proportion of Inpatient pmt/stent to Outpatient pmt/stent			60.18%			

Recent and Current Maryland Hospital Performance

The following tables also show more updated information on the performance of Maryland hospitals on ODS performance (ODS cases as a proportion of total inpatient admissions). These data show that while a few hospitals have been relatively proactive in establishing observation units and shifting cases to observation status away from inpatient treatment (see Table 4a "early adopters"), most hospitals remain very high in terms of their proportion of ODS cases and many hospitals are increasing their proportion of ODS cases (see Table 4b, rank of ODS as a percentage of total cases).

Table 4A

Total Cases per Year Compared to ODS Cases per Year
RY2007 - RY2010; Level I CPC Cases Only Excluding Delivery Normal Newborn and TPR Hospitals
Ranked Based on Rates of Change in Pct ODS cases (2007-2010)

	Total Cases				ODS Cases				Percentage ODS Cases				Percentage Increase/(Decrease)			
Hospital	2007	2008	2009	2010 Annualized	2007	2008	2009	2010 Annualize	2007	2008	2009	2010 Annualized	2008	2009	2010	chg 07-10
Johns Hopkins Bayview	20,251	19,860	19,448	19,482	4,631	4,094	3,722	3,708	22.87%	20.61%	19.14%	19.03%	-2.25%	-1.48%	-0.11%	-3.84%
Johns Hopkins Hospital	40,147	40,200	40,126	40,606	10,700	9,830	9,987	9,540	26.65%	24.45%	24.91%	23.49%	-2.20%	0.46%	-1.42%	-3.16%
Montgomery General Hospital	9,250	9,785	9,827	9,294	1,782	1,804	1,719	1,520	19.26%	18.44%	17.49%	16.35%	-0.83%	-0.94%	-1.14%	-2.91%
Southern Maryland Hospital Center	16,937	16,701	16,502	15,740	4,079	3,876	3,773	3,338	24.08%	23.21%	22.86%	21.21%	-0.88%	-0.34%	-1.66%	-2.88%
University Oncology	859	825	841	870	116	91	64	94	13.50%	11.03%	7.61%	10.80%	-2.47%	-3.42%	3.19%	-2.70%
GBMC	19,801	19,344	19,323	18,476	4,477	3,905	4,017	3,702	22.61%	20.19%	20.79%	20.04%	-2.42%	0.60%	-0.75%	-2.57%
Memorial Hospital at Easton	8,284	8,939	9,220	9,196	2,010	2,009	1,836	2,006	24.26%	22.47%	19.91%	21.81%	-1.79%	-2.56%	1.90%	-2.45%
Sinai Hospital	21,984	23,022	22,965	23,104	4,822	5,201	4,985	4,536	21.93%	22.59%	21.71%	19.63%	0.66%	-0.88%	-2.07%	-2.30%
Suburban Hospital	14,145	14,708	14,589	13,688	3,754	3,961	3,743	3,362	26.54%	26.93%	25.66%	24.56%	0.39%	-1.27%	-1.09%	-1.98%
Dorchester General Hospital	3,331	3,524	3,666	3,460	736	742	664	702	22.10%	21.06%	18.11%	20.29%	-1.04%	-2.94%	2.18%	-1.81%
Shady Grove Adventist Hospital	17,753	18,408	19,634	19,330	3,775	3,848	3,901	3,766	21.26%	20.90%	19.87%	19.48%	-0.36%	-1.04%	-0.39%	-1.78%
Laurel Regional Hospital	6,297	6,320	6,121	5,734	1,242	1,231	1,092	1,030	19.72%	19.48%	17.84%	17.96%	-0.25%	-1.64%	0.12%	-1.76%
Saint Joseph Medical Center	22,516	22,111	22,176	18,856	5,857	5,703	6,155	4,602	26.01%	25.79%	27.76%	24.41%	-0.22%	1.96%	-3.35%	-1.61%
Sinai Oncology	1,460	1,454	1,541	1,468	195	200	190	174	13.45%	13.76%	12.33%	11.93%	0.31%	-1.43%	-0.40%	-1.51%
Frederick Memorial Hospital	15,269	16,338	16,297	16,810	3,003	3,229	2,686	3,062	19.67%	19.76%	16.48%	18.22%	0.10%	-3.28%	1.73%	-1.45%
Howard County General Hospital	12,349	11,993	12,692	13,124	2,394	2,285	2,451	2,404	19.39%	19.05%	19.31%	18.32%	-0.33%	0.26%	-0.99%	-1.07%
Northwest Hospital Center	12,841	12,788	12,742	13,306	2,662	2,560	2,589	2,636	20.73%	20.02%	20.32%	19.81%	-0.71%	0.30%	-0.51%	-0.92%
Washington Adventist Hospital	16,902	16,849	16,452	16,326	4,374	4,016	3,936	4,080	25.88%	23.84%	23.92%	24.99%	-2.04%	0.09%	1.07%	-0.89%
University of Maryland Hospital	24,385	24,394	24,982	26,504	6,338	6,302	6,283	6,676	25.99%	25.83%	25.15%	25.19%	-0.16%	-0.68%	0.04%	-0.80%
Upper Chesapeake Medical Center	12,671	14,675	15,356	14,180	3,767	4,818	5,230	4,104	29.73%	32.83%	34.06%	28.94%	3.10%	1.23%	-5.12%	-0.79%
Anne Arundel Medical Center	20,036	20,493	21,881	21,678	5,013	4,615	5,299	5,274	25.02%	22.52%	24.22%	24.33%	-2.50%	1.70%	0.11%	-0.69%
Saint Agnes Hospital	19,368	19,252	20,777	20,668	4,977	4,704	5,144	5,170	25.70%	24.43%	24.76%	25.01%	-1.26%	0.32%	0.26%	-0.68%
Memorial of Cumberland	7,216	7,284	7,141	5,506	1,495	1,376	1,396	1,110	20.72%	18.89%	19.55%	20.16%	-1.83%	0.66%	0.61%	-0.56%
Washington County Hospital	15,105	15,277	15,157	14,992	2,889	2,953	2,823	2,810	19.13%	19.33%	18.63%	18.74%	0.20%	-0.70%	0.12%	-0.38%
James Lawrence Kernan Hospital	2,610	2,764	2,789	2,896	130	109	122	138	4.98%	3.94%	4.37%	4.77%	-1.04%	0.43%	0.39%	-0.22%
Harford Memorial Hospital	6,531	7,317	7,743	7,106	1,582	1,894	2,264	1,706	24.22%	25.88%	29.24%	24.01%	1.66%	3.35%	-5.23%	-0.22%
Fort Washington Medical Center	2,898	2,903	2,962	3,080	636	574	622	670	21.95%	19.77%	21.00%	21.75%	-2.17%	1.23%	0.75%	-0.19%
Braddock Hospital	9,485	9,277	9,348	10,398	2,055	1,958	2,032	2,248	21.67%	21.11%	21.74%	21.62%	-0.56%	0.63%	-0.12%	-0.05%
Union Memorial Hospital	19,990	20,687	20,551	19,674	6,339	6,351	6,410	6,272	31.71%	30.70%	31.19%	31.88%	-1.01%	0.49%	0.69%	0.17%
Harbor Hospital Center	12,136	12,890	12,834	11,790	2,884	2,809	3,042	2,848	23.76%	21.79%	23.70%	24.16%	-1.97%	1.91%	0.45%	0.39%
Prince George's Hospital Center	12,925	12,274	12,858	12,404	2,604	2,876	2,915	2,554	20.15%	23.43%	22.67%	20.59%	3.28%	-0.76%	-2.08%	0.44%
Peninsula Regional Medical Center	19,761	19,789	20,100	20,876	3,748	3,725	3,692	4,070	18.96%	18.82%	18.37%	19.50%	-0.13%	-0.46%	1.13%	0.54%
Saint Mary's Hospital	8,592	8,973	8,986	8,346	2,558	2,771	2,741	2,536	29.77%	30.88%	30.50%	30.39%	1.11%	-0.38%	-0.12%	0.61%
Franklin Square Hospital Center	24,619	25,890	26,337	26,298	7,464	7,897	8,451	8,224	30.40%	30.50%	32.09%	31.27%	0.10%	1.59%	-0.82%	0.87%
Union of Cecil	7,428	8,161	8,134	7,708	1,859	1,982	2,190	2,028	25.03%	24.29%	26.92%	26.31%	-0.74%	2.64%	-0.61%	1.28%
Bon Secours Hospital	7,925	6,597	7,067	7,712	999	928	971	1,074	12.61%	14.07%	13.74%	13.93%	1.46%	-0.33%	0.19%	1.32%
Civista Medical Center	7,128	7,105	7,302	7,598	1,591	1,535	1,808	1,814	22.32%	21.60%	24.76%	23.87%	-0.72%	3.16%	-0.89%	1.55%
Baltimore Washington Medical Cen	18,128	18,878	19,504	20,688	4,295	4,402	4,588	5,288	23.69%	23.32%	23.52%	25.56%	-0.37%	0.21%	2.04%	1.87%
Good Samaritan Hospital	16,924	17,066	17,324	16,958	3,305	3,352	3,803	3,708	19.53%	19.64%	21.95%	21.87%	0.11%	2.31%	-0.09%	2.34%
Doctors Community Hospital	11,803	11,622	11,883	12,010	2,715	2,594	2,951	3,070	23.00%	22.32%	24.83%	25.56%	-0.68%	2.51%	0.73%	2.56%
Carroll Hospital Center	15,270	15,365	15,691	15,104	4,295	4,078	4,474	4,644	28.13%	26.54%	28.51%	30.75%	-1.59%	1.97%	2.23%	2.62%
Mercy Medical Center	15,812	16,243	16,928	17,246	3,890	4,157	4,398	4,698	24.60%	25.59%	25.98%	27.24%	0.99%	0.39%	1.26%	2.64%
Calvert Memorial Hospital	7,526	7,483	7,844	7,624	1,783	1,730	2,363	2,034	23.69%	23.12%	30.12%	26.68%	-0.57%	7.01%	-3.45%	2.99%
Johns Hopkins Oncology	2,912	2,822	2,986	3,074	626	709	761	754	21.50%	25.12%	25.49%	24.53%	3.63%	0.36%	-0.96%	3.03%
Atlantic General Hospital	3,602	3,681	3,793	3,970	826	818	853	1,058	22.93%	22.22%	22.49%	26.65%	-0.71%	0.27%	4.16%	3.72%
Holy Cross Hospital	22,727	22,666	23,082	23,862	3,416	3,026	4,199	4,478	15.03%	13.35%	18.19%	18.77%	-1.68%	4.84%	0.57%	3.74%
Chester River Health System	3,501	3,415	3,297	3,026	560	601	715	640	16.00%	17.60%	21.69%	21.15%	1.60%	4.09%	-0.54%	5.15%
Maryland General Hospital	10,946	10,949	10,675	10,624	1,320	1,662	1,885	2,104	12.17%	15.50%	17.66%	19.80%	3.33%	2.15%	2.15%	7.63%
Total	630,226	639,261	649,474	642,460	146,586	145,911	151,945	148,064	23.26%	22.82%	23.40%	23.05%	-0.43%	0.57%	-0.35%	-0.21%

Note (1): US Hospital One day stay cases as a proportion of total admissions is approximately 16.5% as of 2006 per HCUP data compared to Maryland's average of over 23% FY 2010 YTD
Note (2): Hospitals in BOLD are thought to be "early-adopters" of OBS services

Table 4B

Total Cases per Year Compared to ODS Cases per Year
RY2007 - RY2010; Level I CPC Cases Only Excluding Delivery Normal Newborn and TPR Hospitals
Ranked based on Proportion of ODS cases to Total Inpatient Cases

	Total Cases				ODS Cases				Percentage ODS Cases				Percentage Increase/(Decrease)			
Hospital	2007	2008	2009	2010 Annualized	2007	2008	2009	2010 Annualize	2007	2008	2009	2010 Annualized	2008	2009	2010	chg 07-10
Union Memorial Hospital	19,990	20,687	20,551	19,674	6,339	6,351	6,410	6,272	31.71%	30.70%	31.19%	31.88%	-1.01%	0.49%	0.69%	0.17%
Franklin Square Hospital Center	24,619	25,890	26,337	26,298	7,484	7,897	8,451	8,224	30.40%	30.50%	32.09%	31.27%	0.10%	1.59%	-0.82%	0.87%
Carroll Hospital Center	15,270	15,365	15,691	15,104	4,295	4,078	4,474	4,644	28.13%	26.54%	28.51%	30.75%	-1.59%	1.97%	2.23%	2.62%
Saint Mary's Hospital	8,592	8,973	8,986	8,346	2,558	2,771	2,741	2,536	29.77%	30.88%	30.50%	30.39%	1.11%	-0.38%	-0.12%	0.61%
Upper Chesapeake Medical Center	12,671	14,675	15,356	14,180	3,767	4,818	5,230	4,104	29.73%	32.83%	34.06%	28.94%	3.10%	1.23%	-5.12%	-0.79%
Mercy Medical Center	15,812	16,243	16,928	17,246	3,890	4,157	4,398	4,698	24.60%	25.59%	25.98%	27.24%	0.99%	0.39%	1.26%	2.64%
Calvert Memorial Hospital	7,526	7,483	7,844	7,624	1,783	1,730	2,363	2,034	23.69%	23.12%	30.12%	26.68%	-0.57%	7.01%	-3.45%	2.99%
Atlantic General Hospital	3,602	3,681	3,793	3,970	826	818	853	1,058	22.93%	22.22%	22.49%	26.65%	-0.71%	0.27%	4.16%	3.72%
Union of Cecil	7,428	8,161	8,134	7,708	1,859	1,982	2,190	2,028	25.03%	24.29%	26.92%	26.31%	-0.74%	2.64%	-0.61%	1.28%
Doctors Community Hospital	11,803	11,622	11,883	12,010	2,715	2,594	2,951	3,070	23.00%	22.32%	24.83%	25.56%	-0.68%	2.51%	0.73%	2.56%
Baltimore Washington Medical Center	18,128	18,878	19,504	20,688	4,295	4,402	4,588	5,288	23.69%	23.32%	23.52%	25.56%	-0.37%	0.21%	2.04%	1.87%
University of Maryland Hospital	24,385	24,394	24,982	26,504	6,338	6,302	6,283	6,676	25.99%	25.83%	25.15%	25.19%	-0.16%	-0.68%	0.04%	-0.80%
Saint Agnes Hospital	19,368	19,252	20,777	20,668	4,977	4,704	5,144	5,170	25.70%	24.43%	24.76%	25.01%	-1.26%	0.32%	0.26%	-0.68%
Washington Adventist Hospital	16,902	16,849	16,462	16,326	4,374	4,016	3,936	4,080	25.88%	23.84%	23.92%	24.99%	-2.04%	0.09%	1.07%	-0.89%
Suburban Hospital	14,145	14,708	14,589	13,668	3,754	3,961	3,743	3,362	26.54%	26.93%	25.66%	24.56%	0.39%	-1.27%	-1.09%	-1.98%
Johns Hopkins Oncology	2,912	2,822	2,986	3,074	626	709	761	754	21.50%	25.12%	25.49%	24.53%	3.63%	0.36%	-0.96%	3.03%
Saint Joseph Medical Center	22,516	22,111	22,176	18,856	5,857	5,703	6,155	4,602	26.01%	25.79%	27.76%	24.41%	-0.22%	1.96%	-3.35%	-1.61%
Anne Arundel Medical Center	20,036	20,493	21,881	21,678	5,013	4,615	5,299	5,274	25.02%	22.52%	24.22%	24.33%	-2.50%	1.70%	0.11%	-0.69%
Harbor Hospital Center	12,136	12,890	12,834	11,790	2,884	2,809	3,042	2,848	23.76%	21.79%	23.70%	24.16%	-1.97%	1.91%	0.45%	0.39%
Harford Memorial Hospital	6,531	7,317	7,743	7,106	1,582	1,894	2,264	1,706	24.22%	25.88%	29.24%	24.01%	1.66%	3.35%	-5.23%	-0.22%
Civista Medical Center	7,128	7,105	7,302	7,598	1,591	1,535	1,808	1,814	22.32%	21.60%	24.76%	23.87%	-0.72%	3.16%	-0.89%	1.55%
Johns Hopkins Hospital	40,147	40,200	40,126	40,606	10,700	9,830	9,997	9,540	26.65%	24.45%	24.91%	23.49%	-2.20%	0.46%	-1.42%	-3.16%
Good Samaritan Hospital	16,924	17,066	17,324	16,958	3,305	3,352	3,803	3,706	19.53%	19.64%	21.95%	21.87%	0.11%	2.31%	-0.09%	2.34%
Memorial Hospital at Easton	8,284	8,939	9,220	9,196	2,010	2,009	1,836	2,006	24.26%	22.47%	19.91%	21.81%	-1.79%	-2.56%	1.90%	-2.45%
Fort Washington Medical Center	2,898	2,903	2,962	3,080	636	574	622	670	21.95%	19.77%	21.00%	21.75%	-2.17%	1.23%	0.75%	-0.19%
Braddock Hospital	9,485	9,277	9,348	10,398	2,055	1,958	2,032	2,248	21.67%	21.11%	21.74%	21.62%	-0.56%	0.63%	-0.12%	-0.05%
Southern Maryland Hospital Center	16,937	16,701	16,502	15,740	4,079	3,876	3,773	3,338	24.08%	23.21%	22.86%	21.21%	-0.88%	-0.34%	-1.66%	-2.88%
Chester River Health System	3,501	3,415	3,297	3,026	560	601	715	640	16.00%	17.60%	21.69%	21.15%	1.60%	4.09%	-0.54%	5.15%
Prince George's Hospital Center	12,925	12,274	12,858	12,404	2,604	2,876	2,915	2,554	20.15%	23.43%	22.67%	20.59%	3.28%	-0.76%	-2.08%	0.44%
Dorchester General Hospital	3,331	3,524	3,666	3,460	736	742	664	702	22.10%	21.06%	18.11%	20.29%	-1.04%	-2.94%	2.18%	-1.81%
Memorial of Cumberland	7,216	7,284	7,141	5,506	1,495	1,376	1,396	1,110	20.72%	18.89%	19.55%	20.16%	-1.83%	0.66%	0.61%	-0.56%
GBMC	19,801	19,344	19,323	18,476	4,477	3,905	4,017	3,702	22.61%	20.19%	20.79%	20.04%	-2.42%	0.60%	-0.75%	-2.57%
Northwest Hospital Center	12,841	12,788	12,742	13,306	2,862	2,560	2,589	2,636	20.73%	20.02%	20.32%	19.81%	-0.71%	0.30%	-0.51%	-0.92%
Maryland General Hospital	10,846	10,949	10,675	10,624	1,320	1,662	1,885	2,104	12.17%	15.50%	17.66%	19.80%	3.33%	2.15%	2.15%	7.63%
Sinai Hospital	21,984	23,022	22,965	23,104	4,822	5,201	4,985	4,536	21.93%	22.59%	21.71%	19.63%	0.66%	-0.88%	-2.07%	-2.30%
Peninsula Regional Medical Center	19,761	19,789	20,100	20,876	3,746	3,725	3,892	4,070	18.96%	18.82%	18.37%	19.50%	-0.13%	-0.46%	1.13%	0.54%
Shady Grove Adventist Hospital	17,753	18,408	19,634	19,330	3,775	3,848	3,901	3,766	21.26%	20.90%	19.87%	19.48%	-0.36%	-1.04%	-0.39%	-1.78%
Johns Hopkins Bayview	20,251	19,860	19,448	19,482	4,631	4,094	3,722	3,708	22.87%	20.61%	19.14%	19.03%	-2.25%	-1.48%	-0.11%	-3.84%
Holy Cross Hospital	22,727	22,666	23,082	23,862	3,416	3,026	4,199	4,478	15.03%	13.35%	18.19%	18.77%	-1.68%	4.84%	0.57%	3.74%
Washington County Hospital	15,105	15,277	15,157	14,992	2,889	2,953	2,823	2,810	19.13%	19.33%	18.63%	18.74%	0.20%	-0.70%	0.12%	-0.38%
Howard County General Hospital	12,349	11,993	12,692	13,124	2,394	2,285	2,451	2,404	19.39%	19.05%	19.31%	18.32%	-0.33%	0.26%	-0.99%	-1.07%
Frederick Memorial Hospital	15,269	16,338	16,297	16,810	3,003	3,229	2,686	3,062	19.67%	19.76%	16.48%	18.22%	0.10%	-3.28%	1.73%	-1.45%
Laurel Regional Hospital	6,297	6,320	6,121	5,734	1,242	1,231	1,092	1,030	19.72%	19.48%	17.84%	17.96%	-0.25%	-1.64%	0.12%	-1.76%
Montgomery General Hospital	9,250	9,785	9,827	9,294	1,782	1,804	1,719	1,520	19.26%	18.44%	17.49%	16.35%	-0.83%	-0.94%	-1.14%	-2.91%
Bon Secours Hospital	7,925	6,597	7,067	7,712	999	928	971	1,074	12.61%	14.07%	13.74%	13.93%	1.46%	-0.33%	0.19%	1.32%
Sinai Oncology	1,450	1,454	1,541	1,458	195	200	190	174	13.45%	13.76%	12.33%	11.93%	0.31%	-1.43%	-0.40%	-1.51%
University Oncology	859	825	841	870	116	91	64	94	13.50%	11.03%	7.61%	10.80%	-2.47%	-3.42%	3.19%	-2.70%
James Lawrence Kernan Hospital	2,810	2,764	2,789	2,898	130	109	122	138	4.98%	3.94%	4.37%	4.77%	-1.04%	0.43%	0.39%	-0.22%
Total	630,226	639,261	649,474	642,460	146,586	145,911	151,945	148,064	23.26%	22.82%	23.40%	23.05%	-0.43%	0.57%	-0.35%	-0.21%

Dynamics of One Day Stays in Maryland and Related Implications

Creation of "Rate Capacity" on ODS Cases and Denied Cases

A contributing factor to the very strong financial incentive to admit lower acuity patients, is the ability of hospitals to generate what is referred to as "rate capacity" on one-day LOS cases. Rate capacity also plays a similar role in incentivizing hospitals to inaccurately submit denied cases to the HSCRC on their monthly revenue and volume reports.

Under the HSCRC payment system, hospitals are paid at discharge on a fee-for-service basis for all facility-related charges. Thus, the payment received by the hospital for any given allowed case will be a function of the HSCRC approved unit rates times the units of service by rate center for that case. **Figure 1** is an example of a sample bill (and payment) for a hypothetical one-day LOS case. Based on the resources used by this patient, the hospital will be paid approximately $5,100 for this case at the time of discharge. However, because this case was ultimately assigned to a Diagnostic Related Group ("DRG") that on average had charges of $7,700 per case, the hospital gets "credit" for this average level of charging. This credit is factored in during the year when the HSCRC staff determines the hospital's overall CPC constraint and "approved revenue" (i.e., what amount of revenue the hospital charged patients during the year that it ultimately gets to keep).

Figure 1

Example of a Hospital Bill for a One-Day LOS Cases

Rate Center	Approved Rate		Units of Service		
Emergency Room	$35.00	X	15 RVUs	=	$525
Admission Charge	$175.00	X	1 Per Pt.	=	$175
Medical Surgical Unit	$1,000.00	X	1 Day	=	$1,000
Laboratory	$7.50	X	52 RVU	=	$390
Blood	114	X	5 CAPS	=	$570
Radiology Diagnostic	$18.00	X	15 RVU	=	$270
Supplies	$1,700.00	X	1 Per Pt.	=	$1,520
Drugs	$950.00	X	1 Per Pt.	=	$650
Total Bill (Payments to hospital for this case)					$5,100

Note: case assigned to DRG 100 which carries an average DRG weight of 0.77 if the average Maryland hospital case (index of 1.0) has a charge of $10,000, this hospital ultimately gets DRG "credit" of 0.77 x $10,000 = $7,700.

Thus, in this circumstance, although the hospital received payments of $5,100 for the short-stay case, it simultaneously generates the ability to raise its rates to all payers by an additional $2,600 (the difference between the average DRG weight or credit and the actual payment for the specific one-day LOS case) and then receive this additional revenue during the course of the year through higher unit rates charged to all payers. This additional revenue is referred to as "rate capacity." Hospitals, thus,

have a very strong incentive to admit short-stay cases in the Maryland system and the data provided previously shows that Maryland hospitals have been responding aggressively (relative to hospitals in other states) to this incentive.[2]

Hospital Generate Significant Rate Capacity for Denied Cases as well

The concept of "rate capacity" also applies to the denied case issue as well. Hospital who inaccurately report denied cases to the HSCRC on their monthly revenue and volume reports receive full "rate capacity" for these cases, when in fact the denying payer has determined the case was not appropriately classified as an inpatient case. Cases that are not inpatient cases are not eligible for inclusion in the HSCRC's CPC methodology and therefore should not generate any rate capacity for that hospital.

The implications of these two circumstances related to the issue of "rate capacity" are that: 1) for denied admissions, all payers are made to pay for cases that were deemed medically unnecessary denied as an inpatient case (as shown above); and 2) for one-day stay cases, Maryland hospitals have generated extra payments and windfall rewards for admitting a large proportion of patients that could otherwise be treated on an outpatient basis (as is the case in other states). Although the actual treatment costs (expenses incurred by the hospital) for one-day stay patients is alleged by hospital representatives to be the same in either setting, admitting these patients triggers inpatient payments that are in effect 50-60% higher than the same care in an observation/outpatient setting. Thus, Maryland hospitals have had little incentive to establish an outpatient observation service, when the use of such a service is quite common nationally.[3]

Maryland Vulnerabilities

Hospitals nationally operating under Medicare Inpatient Prospective Payment System ("IPPS") are paid on an average DRG-based per case payment basis. The payment they receive per case is a function of the particular DRG each patient is assigned to. Patient assignment to DRGs depends on the particular primary and secondary diagnoses codes abstracted from each patient's medical record. DRG per case payment amounts reflect the average costs of all cases assigned to a DRG. Thus, hospitals nationally face similar incentives to aggressively admit – but only for payers that use per case DRG-based payment, such as Medicare.

The Centers for Medicare and Medicaid Services (CMS) instructed its RAC auditors to focus on short-stay cases because it presumed that some hospitals nationally have also been responding too aggressively to the financial incentives to admit under IPPS. In general, the RAC activities nationally, authorized in the Tax Relief and Health Care Act of 2006, are an attempt by Congress to "indentify improper Medicare

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[2] Staff would note that while hospitals in other states have a similar incentive under Medicare's per case payment system, Maryland hospitals face this very strong incentive to admit short-stay cases for all of their cases. The ability to generate "rate capacity" across all of their patients may be the primary reason for the aggressive response.

[3] Average payment weights developed for the HSCRC's planned Charge per Visit Outpatient constraint system shows that outpatient observation cases may generate a payment of between $4,500 – 5,000 per case compared to the approximate $7,700 overall revenue credit generated for that same case if admitted to an inpatient service.

payments and fight fraud, waste and abuse in the Medicare program." The perception that there remains considerable waste and inefficiency in the US health care system is a sentiment shared by the White House today, which also believes that significant improvements in inefficiency can be achieved by specifically targeting areas of waste and excess payments.

The RAC audits and review will cover multiple areas but are geared to explicitly target one-day LOS cases across the country. The State of Maryland is particularly vulnerable because of the high levels of one-day stays overall and the State's high proportion of one-day stay cases in specific DRGs that have been the subject of RAC focus in other states. **Table 5** shows DRGs with the highest proportion of total cases that are one-day stay cases in Maryland. The table also compares Maryland's proportion of select DRGs that are one-day stays with the proportion of cases by DRG that are one-day stays for the rest of the nation.

Table 5

Percent One Day Length of Stay by DRG
Maryland Hospitals 2009

APR DRG	APG Description	Total Cases	One Day Stay Cases	% One Day Stay Cases	National %
	All	620,102	140,673	23%	
203	CHEST PAIN	13,384	9,884	74%	44%
175	PERCUTANEOUS CARDIOVASCULAR PROCEDURES \	9,534	6,890	72%	44%
198	ANGINA PECTORIS & CORONARY ATHEROSCLEROS	9,577	5,674	59%	30%
201	CARDIAC ARRHYTHMIA & CONDUCTION DISORDEF	10,132	3,605	36%	28%
204	SYNCOPE & COLLAPSE	8,078	3,166	39%	22%
225	APPENDECTOMY	5,358	2,953	55%	
249	NON-BACTERIAL GASTROENTERITIS, NAUSEA & VC	8,005	2,888	36%	
243	OTHER ESOPHAGEAL DISORDERS	4,483	2,726	61%	
513	UTERINE & ADNEXA PROCEDURES FOR NON-MALIC	5,315	2,189	41%	
140	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	15,134	2,181	14%	10%
310	INTERVERTEBRAL DISC EXCISION & DECOMPRESSIC	3,939	2,153	55%	
141	ASTHMA	5,685	2,141	38%	
194	HEART FAILURE	18,921	2,140	11%	12%
139	OTHER PNEUMONIA	14,699	2,048	14%	
321	CERVICAL SPINAL FUSION & OTHER BACK/NECK PR	3,558	2,040	57%	
192	CARDIAC CATHETERIZATION FOR ISCHEMIC HEAR	4,010	1,986	50%	
47	TRANSIENT ISCHEMIA	5,361	1,944	36%	21%
566	OTHER ANTEPARTUM DIAGNOSES	4,648	1,937	42%	
383	CELLULITIS & OTHER BACTERIAL SKIN INFECTIONS	11,684	1,830	16%	
254	OTHER DIGESTIVE SYSTEM DIAGNOSES	5,991	1,738	29%	
420	DIABETES	6,360	1,585	25%	
663	OTHER ANEMIA & DISORDERS OF BLOOD & BLOOD-	4,708	1,577	33%	
173	OTHER VASCULAR PROCEDURES	4,999	1,564	31%	
24	EXTRACRANIAL VASCULAR PROCEDURES	2,341	1,563	67%	65%
53	SEIZURE	5,614	1,447	26%	
144	RESPIRATORY SIGNS, SYMPTOMS & MINOR DIAGNO	3,375	1,383	41%	
199	HYPERTENSION	2,944	1,343	46%	
463	KIDNEY & URINARY TRACT INFECTIONS	9,753	1,303	13%	8%
404	THYROID, PARATHYROID & THYROGLOSSAL PROCE	1,509	1,272	84%	

In the "chest pain" DRG for instance, 44% of all admissions for chest pain nationally are one-day LOS cases. In Maryland, 74% of all cases admitted for chest pain are one-day cases. **Table 6** is the results of an analysis of McBee and Associates, a local management consulting company, estimating Maryland hospital potential exposure to RAC denials of one-day LOS cases in RAC targeted DRGs.

Table 6

Targeted RAC DRGs (source McBee Associates Inc.)

	Admissions	1 Day Stays	% of 1 Day Stays	Potential RAC Loss
Maryland	**109,651**	**18,726**	**17.08%**	**($41,703,401)**
Washington DC	13,084	1,223	9.35%	($7,388,503)
Delaware	16,404	1,558	9.50%	($6,633,195)
Pennsylvania	232,956	24,649	10.58%	($98,254,117)
Virginia	122,956	14,182	11.53%	($51,996,991)

CMS recently reported that the RACs had succeeded in correcting more than $1.03 billion in Medicare improper payments in the five pilot states. Approximately 96 percent ($992.7 million) of the improper payments were overpayments collected from providers, while the remaining 4 percent ($37.8 million) were underpayments repaid to providers. RAC audits of Maryland hospitals are expected to commence after January or 2010. In the pilot states, hospitals routinely appealed RAC auditor determinations which resulted in considerable expenditure on the part of providers on legal and consulting services since implementation of the RAC program in 2006.

Inevitably, Maryland hospital relatively unfavorable performance on one-day LOS cases will likely be a focus of future RAC audit activity. As noted previously, the HSCRC staff believes that the HSCRC can more appropriately address this issue through a systematic change to the incentives in the rate setting system. Staff would also seek to convince CMS of the value of implementing a more systematic approach to reducing one-day stays in the State. Discussions with CMS personnel are on-going. Staff's success in convincing the federal agency to divert its attention away from the one-day LOS issue, however, is highly dependent on the ultimate action taken by the Commission on this issue.

National Evidence that Outpatient Observation Care is both Cost and Quality-Effective

These results above clearly reveal a tendency for Maryland hospitals to admit patients rather than treat them on an outpatient basis. Staff believes that treating patients on an outpatient observation basis will be both less costly to the paying public (from a payment standpoint) and arguably less-risky (from a quality of care standpoint) setting. These staff conclusions are supported by representatives from the Centers for Medicare and Medicaid Services (based on conversations between HSCRC staff and CMS and RAC audit personnel), private payers and hospitals from around the country.

Appendix I to this recommendation contains a recent white paper developed in 2007 by the Society of Hospital Medicine's Expert Panel on Observation Units. The introduction section to this paper provides an overview of the development and current status and benefits of observation services, specifically from the vantage point of practicing hospitalists. The Observation Unit Operations section to this paper describes the various options for staffing and providing observation services—i.e., dedicated units in the ED or elsewhere in the hospital, "virtual" units with patients scattered throughout the hospital—that

have all been successful models for providing these services. The Observation Unit Clinical Care and Outcomes section highlights the importance of selecting the appropriate diagnoses that are amenable to providing care consistent with established clinical protocols and that have demonstrated better outcomes when appropriate observation services are provided.

These results and discussions clearly show there are both efficiency and quality of care benefits of providing observation services. The conclusions and observations in this paper are consistent with comments and observations from payer representatives outside of Maryland contacted by staff.
In light of these and earlier findings, staff examined whether the financial incentives in the Maryland hospital payment system somehow contributed to this excessive tendency to admit one-day LOS cases. Staff believe that both the currently handling of denied cases and the potential for generating so-called "rate-capacity" on denied and non-denied one-day cases, does indeed created too strong of a financial incentive for Maryland hospitals to admit short stay (most predominantly one-day LOS cases).

The Handling of Denied Cases in the HSCRC's Charge per Case (CPC) Methodology

During its review of Maryland hospital one-day LOS performance, staff also became aware of the way in which most hospitals are reporting denied admissions (a majority of which are likely one-day stay cases) to the HSCRC. When an inpatient case (either a one-day stay or longer LOS case) is denied for payment purposes, hospitals are not paid for services rendered and must account for the denied payments as a contractual allowance. In some circumstances, hospitals have the ability to self-disallow one-day cases, in the expectation that payers will not for these cases on an inpatient basis.[4] These cases by definition are not inpatient services and the charges associated with these cases should not be reported to the HSCRC as inpatient revenue, eligible for the Commission's CPC methodology.

It appears, however, that many hospitals have been including these cases in the data they report to the HSCRC for the calculation of the hospitals' approved CPC. As noted, the reporting of these denied cases as inpatient admissions generates full "DRG- weight" credit for the denied cases. This DRG-weight credit, gives the hospitals the ability to raise their unit rates to all other payers to generate the disallowed revenue associated with their denied cases. Staff does not believe this is appropriate

Based on this dynamic, the HSCRC staff requested that hospital provide a report of denied cases for FY 2009. Although staff has concerns about the accuracy and consistency of reporting by hospitals in this preliminary 2009 report, it does appear that approximately 4,000 cases were denied (either by payers or self-disallowed by hospitals on an annualized basis). Table 5 provides a summary by hospital for the first 9 months of FY 2009. Staff estimates that the improper reporting of these denied cases in the monthly HSCRC data resulted in unintentional rate capacity in excess of $30 million for rate year 2009.

[4] Per Medicare conditions of participation, acute care hospitals must initiate a utilization review (UR) infrastructure that provides for review of services furnished by that hospital and medical staff for Medicare patients. A UR review committee must be established by the hospital to carry out UR review for Medicare patients. The UR infrastructure must provide for review of Medicare and Medicaid patients with respect to the medical necessity of:1) admission to the institution; 2) duration of stays; and 3) professional services furnished. If a particular case does not meet Medicare criteria for medical necessity, the UR committee may in effect self-deny that case and the hospital. The hospital will not then receive payment for inpatient services rendered on that case.

This denied case report is now a mandated report by the HSCRC. First quarter of FY 2010 is due in the first week of December 2009. The HSCRC will receive quarterly reports on all denied cases for each subsequent quarter. **Table 7** below provides the staff's report on denied cases submitted for the first two quarters of FY 2010. The table shows that on an annualized basis, hospitals are estimated to generate $9.5 million in excess rate capacity on cases that ultimately were not deemed appropriate for inpatient treatment. However, because these cases were included as part of these hospitals' inpatient submissions, they generate additional rate capacity (increases in hospital rates) charged to all other payers. Staff believes this is inappropriate and these charges should be removed from hospitals' CPC for FY 2010 and future years.

Table 7

Data on Q1 and Q2 Denied Cases and Charges FY 2010

Hospital name	Denied Cases	Denied Charges	Annualized Denied Charges	Approved Revenue for Denied Cases by DRG	Annualized Approved Revenue for Denied Cases	Excess Rate Capacity Earned	Annualized Excess Rate Capacity Earned FY 10
Washington County Hospital	38	$216,167	$432,334	$224,345	$448,691	$52,475	$104,950
University of Maryland	95	$553,620	$1,107,240	$1,558,721	$3,117,442	$1,007,358	$2,014,716
Prince Georges Medical Center	1	$3,098	$6,196	$4,932	$9,865	$1,834	$3,668
Holy Cross of Silver Spring	52	$415,435	$830,870	$213,231	$426,461	$33,914	$67,828
Frederick Memorial Hospital	53	$253,658	$507,317	$261,242	$522,485	$61,196	$122,392
Harford Memorial Hospital	3	$7,128	$14,257	$8,960	$17,921	$2,553	$5,106
St Joseph Hospital	12	$109,726	$219,452	$177,136	$354,273	$70,164	$140,329
Mercy Medical Center Inc	119	$427,907	$855,814	$649,161	$1,298,322	$279,875	$559,750
Johns Hopkins Hospital	25	$157,234	$314,468	$350,537	$701,074	$204,101	$408,203
St Agnes Healthcare	219	$1,054,914	$2,109,828	$1,569,489	$3,138,978	$566,521	$1,133,043
Sinai Hospital	17	$70,485	$140,969	$230,047	$460,094	$159,562	$319,124
Bon Secours Hospital	26	$194,580	$389,160	$184,156	$368,313	$23,833	$47,666
Franklin Square Hospital	71	$256,711	$513,422	$317,589	$635,178	$82,108	$164,216
Washington Adventist Hospital	25	$189,439	$378,879	$268,522	$537,045	$105,499	$210,998
Garrett County Hospital	9	$54,486	$108,973	$30,280	$60,560	$3,962	$7,925
Montgomery General Hospital	75	$901,336	$1,802,673	$565,751	$1,131,502	$29,399	$58,799
Peninsula Regional Medical Center	42	$244,394	$488,789	$417,084	$834,167	$174,676	$349,352
Suburban Hospital	70	$432,296	$864,593	$646,254	$1,292,508	$234,944	$469,888
Anne Arundel Medical Center	62	$317,241	$634,482	$351,395	$702,790	$94,376	$188,753
Union Memorial Hospital	53	$623,640	$1,247,280	$1,188,515	$2,377,031	$569,699	$1,139,399
Memorial Hospital of Cumberland	3	$5,403	$10,805	$11,813	$23,626	$6,410	$12,820
Sacred Heart Hospital	2	$9,082	$18,164	$12,333	$24,666	$5,625	$11,249
St Marys Hospital	5	$10,966	$21,931	$7,632	$15,264	$409	$818
Johns Hopkins Bayview Medical Center	61	$270,837	$541,675	$372,954	$745,908	$125,396	$250,791
Chester River Hospital Center	1	$2,667	$5,334	$3,369	$6,737	$701	$1,403
Union Hospital of Cecil County	55	$198,222	$396,443	$177,233	$354,465	$27,255	$54,510
Carroll County General Hospital	209	$730,923	$1,461,847	$783,496	$1,566,993	$174,644	$349,289
Harbor Hospital Center	84	$432,228	$864,457	$443,280	$886,561	$105,872	$211,745
Civista Medical Center	20	$72,039	$144,078	$61,877	$123,753	$7,146	$14,293
Memorial of Easton	2	$10,358	$20,716	$10,675	$21,350	$2,179	$4,358
Maryland General Hospital	54	$242,222	$484,445	$355,136	$710,272	$152,948	$305,895
Calvert County Memorial Hospital	48	$186,665	$373,330	$115,858	$231,717	$7,381	$14,762
Northwest Hospital Center	27	$116,543	$233,086	$140,501	$281,003	$37,809	$75,619
Baltimore Washington Med Ctr	19	$136,172	$272,345	$167,555	$335,111	$53,915	$107,830
Greater Baltimore Medical Center	73	$483,456	$966,912	$391,322	$782,645	$59,561	$119,123
Howard County General Hospital	51	$304,706	$609,411	$242,136	$484,272	$42,094	$84,188
Southern Maryland Hospital	23	$66,946	$133,892	$72,108	$144,215	$18,658	$37,316
Laurel Regional Hospital	1	$4,779	$9,558	$2,891	$5,783	$0	$0
Good Samaritan Hospital	28	$104,527	$209,053	$224,032	$448,064	$120,951	$241,902
Shady Grove Adventist Hospital	13	$63,835	$127,670	$62,667	$125,333	$15,855	$31,711
Fort Washington Hospital	9	$47,046	$94,092	$35,229	$70,458	$873	$1,746
Total	1,855	$9,983,120	$19,966,240	$12,911,446	$25,822,893	$4,723,736	$9,447,471

Commission Directive to Staff Regarding One Day Length of Stay and Denied Cases

Given the concerns raised by the industry regarding the need to improve certain process issues at the HSCRC, the magnitude of the budget cuts imposed on the industry in 2010, and concerns raised by the hospital industry regarding the need for revised rate centers to appropriately charge for Observation cases, the Commission requested that HSCRC staff, hospital and payer industries undertake a concerted work effort to negotiate in good faith a reasonable compromise proposal for modifications to the All-

Payer Hospital Payment System to address issues associated with the most efficient and effective provision of care for One Day Length of Stay and Denied cases. The Commission requested that this recommendation attempt to address the following issues:

Development of an Appropriate Charging Structure for Observation Cases: A revised rate structure should be developed, which allows for appropriate charging for Observation cases. This revised rate structure should be ready for implementation no later than July 1, 2010.

Appropriate Payment Incentives: A modified payment recommendation should be developed that provides sufficient (but not unreasonably punitive) financial incentives for hospitals to transition to the use of observation services for short-stay cases over a reasonable time-frame.

Sufficient Time for Transition: Hospitals will require sufficient time to change their operations and respond to the new incentives to provide care for short-stay patients in an observation setting. As such the modified proposal should be implemented over the course of 2 years to allow for a deliberate but reasonable transition to lower health care costs and more efficient provision of care by hospitals.

Cost Savings to the Public: While the Commission acknowledges the need for the development of an appropriate incentive structure and for the industry to have sufficient time to adjust to payment system changes designed to promote more effective and efficient care, it also recognizes the urgent need to reduce excess cost and inefficiency in the health care system. Given this need, any compromise proposal should be designed to achieve some reasonable magnitude of cost savings (to the public) and promote more efficient operation by hospitals. The Commission, however, believes the most appropriate way to realize such savings is in the context of the annual update factor, with any final rate incentives associated with one-day length of stay cases applied on a revenue-neutral basis.

Allowance for Case Mix Change: Hospitals that appropriately establish observation units and shift observation-eligible cases to these units will necessarily realize increases in measured case mix increases. Consideration should be given to appropriate adjustments to hospital case mix allowances to recognize reasonable measured case mix growth resulting from this practice.

A Systematic and Fair Approach: The compromise proposal should be developed in the context of other policy and payment changes and also designed to move the industry, in a systematic way, toward lower cost and more effective/efficient provision of care. Commission sees this approach as superior to the potentially contentious and costly payer/hospital specific method of case-by-case denials and appeal. The Commission and the payer and hospital industries should strive to address the short-stay issue prospectively and systematically. Staff should work deliberately with both public and private payers to achieve a systematic solution to this issue in lieu of other less-productive and more resource-intensive approaches.

Impact on the Medicare Waiver: Finally, consideration should be given to the impact of any final proposal on the Maryland Medicare waiver test, and ways in which any negative waiver impact can be minimized.

The Commission also requested that the staff present this revised Draft Recommendation by the April 2010 public meeting and that a final recommendation be before the Commission in time for implementation of the proposed policies by July 1, 2010 (applying to FY 2011).

Activities of the One Day Length of Stay Work Group

Since the Commission issued this request, the One Day Length of Stay Work Group and Technical sub-groups have met eleven times over the course of the past three months. These groups have made considerable progress in developing a consensus approach that addresses the priorities and principles articulated by the Commission in January of this year. The issues considered thus far by the Work Group include the following:

1) Treatment of One Day Length of Stay Cases (ODS) Relative to Hospitals' Charge per Case Targets
Both the HSCRC staff and the hospital representatives believe that all ODS cases should be excluded from hospitals' inpatient charge per case targets and treated as a separate category for compliance and other rate regulatory purposes.

2) Application of a Per Case Constraint and Case Mix Constraint on the Excluded ODS Cases
Staff believes that hospitals do respond to financial incentives and when payment is structured in a way to establish a set target or per case payment standard per case it does influence them to be efficient in the delivery of resources necessary to treat that case (i.e., constrain increases in ancillary services, and supply and drug use). In the absence of such a payment structure (Per case Charge limit) the tendency is to over-utilize these services. Given the HSCRC's experience in this regard, staff believes that the ODS cases now excluded from the Commission's normal CPC target should have separate CPC targets established for them.

Additionally, the staff advocates the establishment of a case mix cap or limit on this new Charge per Case category (ODS cases). In the past the Commission has under-estimated the hospital industry's capacity for responding to incentives to improve coding and documentation and associated case mix. In order to assure the State that is held harmless for these potential coding issues, the staff believes it is prudent to apply a case mix cap for ODS cases.

MHA representatives do not believe it is necessary to apply either a separate CPC standard for ODS or limit case mix.

3) Link to the Productivity Factor in the Update to Hospital Rates for FY 2011
Originally, the Commission suggested linking any "savings" associated with reductions in excess rate capacity associated with ODS cases be linked to other system savings achieved through the application of a "productivity" factor in the annual update. After further consideration both HSCRC staff and hospital representatives believe that there should be a "revenue-neutral" reallocation of a specified amount (related to rate capacity and case mix increases foregone by hospitals who moved early on to establish Observation units (OBS) and shift cases from the ODS category to outpatient care (the so-called "early adopters of OBS") away from hospitals who have generated excess rate capacity and avoided case mix reductions by not establishing OBS units or otherwise treating patients in an ambulatory setting. Thus, all parties believe that a revenue-neutral reallocation of revenue should occur (to the "early adopter" hospitals away from non-early adopter hospitals) but that this calculation and reallocation occur separate from the application of a productivity factor in the FY 2011 rate update.

All parties believe that a reallocation of this nature is fair given that hospitals who proactively established OBS units gave up considerable rate capacity and case mix allowances.

4) Method Used for Revenue-Neutral Re-Allocation

There is still some debate over the best way to achieve this reallocation of revenue associated with foregone rate capacity and case mix allowance. The MHA has been working on a method that appears to accomplish the staff's goal of restoring foregone rate case mix to hospitals that proactively established OBS units and presumably also decreased their number of ODS patients as a proportion of total admissions. The staff could support such a proposal if the industry can achieve consensus on how best to reallocate revenues associated with lost rate capacity and case mix.

In the absence of an acceptable MHA proposal, staff has proposed the use of a scaling calculation that compares hospitals proportion of ODS cases to total admissions by APR-DRG and SOI cell. Additionally, staff would seek to reallocate lost case mix allowances for early adopter hospitals and handle then apply this increase in system revenue as slippage in the update factor.

5) Application of a Continued Incentive for Hospitals to Shift Cases from ODS to OBS

Staff believes that the Commission should establish a "soft system target" for the proportion of inpatient cases that are ODS cases (over the short term for FY 2011 - FY 2014) and also apply a system of revenue-neutral rewards and penalties to hospitals to continue to incentivize Maryland hospital to treat more cases in the more cost-effective and quality-effective OBS and ambulatory settings. By "soft target," staff means merely stating a set of desired interim goals and then checking and monitoring system performance over time. This soft target would then also be accompanied by a system of rewards and penalties to induce the desired behavior over time. **Table 8** below outlines the staff proposed and desired "soft" targets (not enforced by rate action – but merely illustrating desired performance). **Tables 9a and 9b** display two proposals for the application of continued rate incentives to encourage the movement of cases to outpatient settings (where the net result of this activity, staff anticipates, will be lower overall cost and better quality of care for Maryland patients). The "soft-targets" were developed based on a review of the rates of change of "early-adopter" hospitals as shown in Table 4a above. The top performing "early-adopters" appeared to reduce their proportions of ODS cases by about 1.0% per year. Therefore staff thought it reasonable to apply this performance standard to the industry as a whole.

Table 8

Proposed "Soft Targets" for Maryland
Desired Performance on One Day Stay (ODS)
Cases as a Proportion of Total Admissions

Current Medicare Performance						Proposed "soft targets" for ODS cases			
	2006	2007	2008	2009	YTD 2010	2011	2012	2013	2014
Maryland	17.83%	17.59%	17.49%	17.50%	17.00%	**16.00%**	**15.00%**	**14.00%**	**13.00%**
US Medicare	13.75%	13.68%	13.40%	NA	NA				
Difference	4.08%	3.91%	4.09%						
Maryland All-Payer	22.48%	23.26%	22.82%	23.40%	23.05%	**22.05%**	**21.05%**	**20.05%**	**19.05%**
US All-Payer	16.58%	NA	NA	NA	NA				
Difference	5.90%								

NA = "Not Available"

Table 8a

Summary Results of the ODS Revenue Neutral Continued Incentive
Option 1: Scaling $10 Million of Statewide Inpatient Revenue (weaker incentives)

Hospital	ODS Index	Rank	Percentile Rank	Proposed Adjustment	Revenue Impact
Franklin Square Hospital	1.2431	1	0%	-0.1222%	($350,116)
Union Memorial Hospital	1.2403	2	4%	-0.1222%	($379,587)
Harford Memorial Hospital	1.187	3	6%	-0.0984%	($59,793)
Upper Chesapeake Medical Center	1.1727	4	8%	-0.0920%	($128,008)
Anne Arundel General Hospital	1.1307	5	10%	-0.0732%	($190,485)
Calvert Memorial Hospital	1.1278	6	12%	-0.0720%	($44,290)
Carroll County General Hospital	1.1069	7	14%	-0.0626%	($89,563)
Johns Hopkins Oncology Center	1.0921	8	16%	-0.0560%	($40,503)
Johns Hopkins Hospital	1.0816	9	18%	-0.0513%	($431,357)
Mercy Medical Center, Inc.	1.0774	10	20%	-0.0494%	($101,810)
Sinai Hospital	1.0753	11	22%	-0.0485%	($177,137)
St. Josephs Hospital	1.049	12	24%	-0.0368%	($107,125)
Baltimore Washington Medical Center	1.0296	13	27%	-0.0281%	($55,975)
Univ. of Maryland Medical System	1.0293	14	29%	-0.0280%	($156,705)
Garrett County Memorial Hospital	1.0213	15	31%	-0.0244%	($4,989)
Memorial Hospital at Easton	1.0185	16	33%	-0.0231%	($22,278)
Union Hospital of Cecil County	1.0116	17	35%	-0.0201%	($13,424)
Suburban Hospital Association,Inc	1.0104	18	37%	-0.0195%	($32,911)
Maryland General Hospital	1.0053	19	39%	-0.0172%	($23,874)
St. Agnes Hospital	1.0022	20	41%	-0.0159%	($39,859)
Howard County General Hospital	0.9761	21	43%	-0.0042%	($6,113)
Washington Adventist Hospital	0.9758	22	45%	-0.0041%	($8,834)
Good Samaritan Hospital	0.9621	23	47%	0.0034%	$7,075
Greater Baltimore Medical Center	0.9615	24	49%	0.0039%	$8,947
St. Marys Hospital	0.9569	25	51%	0.0073%	$4,872
Atlantic General Hospital	0.9448	26	53%	0.0163%	$6,196
Harbor Hospital Center	0.9086	27	55%	0.0433%	$65,227
Johns Hopkins Bayview Med. Center	0.9037	28	57%	0.0470%	$121,593
Doctors Community Hospital	0.9005	29	59%	0.0494%	$56,710
Washington County Hospital	0.8958	30	61%	0.0529%	$84,049
Laurel Regional Hospital	0.8904	31	63%	0.0569%	$35,207
Sinai Oncology	0.8835	32	65%	0.0620%	$18,313
Holy Cross Hospital of Silver Spring	0.8688	33	67%	0.0730%	$209,434
Prince Georges Hospital	0.852	34	69%	0.0855%	$152,378
Montgomery General Hospital	0.8479	35	71%	0.0886%	$88,799
Shady Grove Adventist Hospital	0.8448	36	73%	0.0909%	$194,061
Dorchester General Hospital	0.8378	37	76%	0.0961%	$28,987
Northwest Hospital Center, Inc.	0.8318	38	78%	0.1006%	$128,075
Peninsula Regional Medical Center	0.8291	39	80%	0.1026%	$269,514
James Lawrence Kernan Hospital	0.829	40	82%	0.1027%	$49,766
Western Maryland Regional Medical Center	0.8258	41	84%	0.1050%	$176,956
Civista Medical Center	0.8254	42	86%	0.1053%	$72,148
Southern Maryland Hospital	0.8157	43	88%	0.1126%	$177,144
Frederick Memorial Hospital	0.804	44	90%	0.1213%	$204,337
McCready Foundation, Inc.	0.7688	45	92%	0.1475%	$9,142
Chester River Hospital Center	0.7187	46	94%	0.1849%	$54,794
Fort Washington Medical Center	0.6989	47	96%	0.1997%	$47,216
Bon Secours Hospital	0.6931	48	98%	0.2040%	$152,133
University (UMCC)	0.4963	49	100%	0.2040%	$41,661
Statewide Total				0.0000%	$0

Table 8b

Summary Results of the ODS Revenue Neutral Continued Incentive
Option 2: Scaling $20 Million of Statewide Inpatient Revenue (stronger incentives)

Hospital	ODS Index	Rank	Percentile Rank	Proposed Adjustment	Revenue Impact
Franklin Square Hospital	1.2431	1	0%	-0.2444%	(700,232)
Union Memorial Hospital	1.2403	2	4%	-0.2444%	(759,174)
Harford Memorial Hospital	1.187	3	6%	-0.1968%	(119,586)
Upper Chesapeake Medical Center	1.1727	4	8%	-0.1840%	(256,017)
Anne Arundel General Hospital	1.1307	5	10%	-0.1465%	(380,971)
Calvert Memorial Hospital	1.1278	6	12%	-0.1439%	(88,580)
Carroll County General Hospital	1.1069	7	14%	-0.1252%	(179,125)
Johns Hopkins Oncology Center	1.0921	8	16%	-0.1120%	(81,006)
Johns Hopkins Hospital	1.0816	9	18%	-0.1026%	(862,713)
Mercy Medical Center, Inc.	1.0774	10	20%	-0.0989%	(203,620)
Sinai Hospital	1.0753	11	22%	-0.0970%	(354,274)
St. Josephs Hospital	1.049	12	24%	-0.0735%	(214,249)
Baltimore Washington Medical Center	1.0296	13	27%	-0.0562%	(111,950)
Univ. of Maryland Medical System	1.0293	14	29%	-0.0559%	(313,409)
Garrett County Memorial Hospital	1.0213	15	31%	-0.0488%	(9,977)
Memorial Hospital at Easton	1.0185	16	33%	-0.0463%	(44,557)
Union Hospital of Cecil County	1.0116	17	35%	-0.0401%	(26,848)
Suburban Hospital Association,Inc	1.0104	18	37%	-0.0390%	(65,822)
Maryland General Hospital	1.0053	19	39%	-0.0345%	(47,749)
St. Agnes Hospital	1.0022	20	41%	-0.0317%	(79,718)
Howard County General Hospital	0.9761	21	43%	-0.0084%	(12,227)
Washington Adventist Hospital	0.9758	22	45%	-0.0081%	(17,668)
Good Samaritan Hospital	0.9621	23	47%	0.0069%	14,150
Greater Baltimore Medical Center	0.9615	24	49%	0.0078%	17,893
St. Marys Hospital	0.9569	25	51%	0.0146%	9,745
Atlantic General Hospital	0.9448	26	53%	0.0327%	12,393
Harbor Hospital Center	0.9086	27	55%	0.0866%	130,453
Johns Hopkins Bayview Med. Center	0.9037	28	57%	0.0939%	243,186
Doctors Community Hospital	0.9005	29	59%	0.0987%	113,420
Washington County Hospital	0.8958	30	61%	0.1057%	168,099
Laurel Regional Hospital	0.8904	31	63%	0.1138%	70,414
Sinai Oncology	0.8835	32	65%	0.1241%	36,626
Holy Cross Hospital of Silver Spring	0.8688	33	67%	0.1460%	418,867
Prince Georges Hospital	0.852	34	69%	0.1710%	304,757
Montgomery General Hospital	0.8479	35	71%	0.1771%	177,598
Shady Grove Adventist Hospital	0.8448	36	73%	0.1818%	388,122
Dorchester General Hospital	0.8378	37	76%	0.1922%	57,974
Northwest Hospital Center, Inc.	0.8318	38	78%	0.2011%	256,150
Peninsula Regional Medical Center	0.8291	39	80%	0.2052%	539,028
James Lawrence Kernan Hospital	0.829	40	82%	0.2053%	99,532
Western Maryland Regional Medical Center	0.8258	41	84%	0.2101%	353,913
Civista Medical Center	0.8254	42	86%	0.2107%	144,295
Southern Maryland Hospital	0.8157	43	88%	0.2252%	354,288
Frederick Memorial Hospital	0.804	44	90%	0.2426%	408,673
McCready Foundation, Inc.	0.7688	45	92%	0.2951%	18,285
Chester River Hospital Center	0.7187	46	94%	0.3698%	109,588
Fort Washington Medical Center	0.6989	47	96%	0.3993%	94,433
Bon Secours Hospital	0.6931	48	98%	0.4080%	304,266
University (UMCC)	0.4963	49	100%	0.4080%	83,322
Statewide Total				0.0000%	0

The use of a continued incentive structure would seek to reallocate a certain magnitude of revenue from poorer performing hospitals (hospitals who continue to have proportions of ODS cases in excess of the State-wide average – by APR-SOI cell) to better performing hospitals (those who have proportions of ODS cases below the State-wide average). The staff presents two alternative magnitudes of revenue for reallocation – Table 8a shows a simulation of placing $10 million at risk for reallocation and Table 8b shows a simulation of placing $20 million of revenue at risk. This methodology is described in more detail in Appendix III to this recommendation.

The MHA is currently opposed to the development of any "soft targets" for Maryland ODS performance (vs. the US). They are also opposed to the application of any additional incentive structure to further encourage the use of OBS and ambulatory surgical services for lower acuity cases that have traditionally been admitted for inpatient care in the State.

6) Denied Cases

Staff has been adamant about the need to adjust hospitals' CPCs for the presence of denied cases that generate excess rate capacity. A majority of denied cases in the system also appear to be ODS cases and thus will be subject to the policy changes associated with ODS cases. Thus the ODS policy will largely handle the denied case issue in future years. Staff continues to believe that denied cases for FY 2010 should be removed from hospital CPC targets for compliance and charging purposes. Denied cases are by definition not inpatient cases and should not count toward the generation of a hospital's "rate capacity." To do so, would be to charge all payers for cases and charges denied by one payer. Hospital representatives disagree with this approach and recommend removal of denied cases beginning in FY 2011.

The MHA is opposed to the removal of denied cases and associated excess rate capacity in FY 2010.

7) Rate Structure

Staff and the industry continue to make progress in identifying and operationalzing the steps necessary to develop and implement a revised rate structure for both OBS and surgical recovery services. Staff expects to have a recommendation for a revised rate structure for these services before implementation July 1, 2010 (for FY 2011). Staff will then monitor the charging structure and hospitals charging practices in FY 2011 and make any necessary changes or modifications to this structure over time.

8) Charge per Visit (CPV) Issues

The staff and the industry remain in disagreement about certain factors related to the treatment of OBS cases with in the CPV constraint mechanism (schedule to being in FY 2011). Hospital representatives have requested that OBS cases be excluded from the CPV or at not have these OBS cases held to any case mix limit (if a limit is applied on CPV case mix). Failure to do so will allow hospitals no constraint on their charging practices associated with these OBS and one-day surgical cases. In fact, excluding these cases from the base CPV provides a strong incentive for hospitals to over-utilize services per case in order to establish a higher than appropriate base, upon which they will be measured for future year to year changes in case charges and resource use.

Staff is receptive to exempting OBS cases from a limitation on case mix but believes strongly that OBS cases be included in the outpatient constraint (CPV) system.

Table 9 below summarizes the issues and the staff and industry positions.

Table 9

Issue	MHA Position	HSCRC Position
1. CPC and ODS	Exclude ODS from CPC	Exclude ODS from CPC
2. ODS Constraint	Oppposed to a constraint on ODS cases and opposed a constraint on ODS case mix growth	Recommends constraining both ODS per case & limiting CMI growth associated with ODS cases
3) Link ODS "savings" to Productivity Factor in the Annual Update	No link to Productivity in Update Factor Working on a proposal to allocate a proportion of lost rate capacity and lost Case Mix allowance back to hospitals who were "early adopters" of Observation Services in Maryland (see next section)	Staff in Agreement with MHA
4) Reallocation of lost Case Mix by "early adopting" hospitals (hospitals who were the first to establish observation units)	MHA is working on a proposal to reallocate "lost" Case mix from late adopters to early adopters.	Staff receptive to a MHA proposed method for reallocating lost Case Mix from poor performing hospitals to better performing hospitals (the so-called "early adopters" of observation services). In the absence of a viable industry proposal however, staff would propose a method for reallocating both lost rate capacity and case mix at the July public meeting.
5. Continued incentive to move ODS cases to OBS	Opposed to the establishment of performance targets and opposed to the application of rate incentives.	Recommends establishing short-term "soft targets" (desired future performance) for Maryland for both Medicare ODS cases and All-Payer ODS cases as a proportion of total admissions. Also recommends the application of continued financial incentives for Maryland hospitals to continue to shift ODS cases to ambulatory settings
6. Denied Cases	Opposed to any adjustment for denied cases and excess rate capacity earned in FY 2010	Remove denied cases and rate capacity from CPC in 2010 and all future years
7. Restructuring Unit Rates	Recommend creating separate rate center for OBS and restructuring surgical recovery rate center	Recommend creating separate rate center for OBS and restructuring surgical recovery rate center
8. CPV Issues	Opposed to including OBS cases in the CPV in FY 2011 and in agreement with staff about excluding OBS from any Case Mix cap on outpatient.	Recommend including OBS cases and 1 day surgical cases in the CPV in FY 2011 but exclude OBS cases from Case Mix caps if Case Mix caps are applied for the CPV

Final Staff Recommendations

1) Exclude all One Day Stay (ODS) cases from hospitals' Charge per Case Standards effective July 1, 2010 (applying to the rate year FY 2011);.

2a) Establish a separate Charge per Case standard for all excluded ODS cases; and 2b) establish a case mix cap or limit on this new Charge per Case category (ODS cases). This limit would be subject to discussion and negotiation in the context of the FY 2011 Rate Update;

3) Do not explicitly link to the Productivity Factor in the Update to Hospital Rates for FY 2011;

4) Utilize the MHA-Proposed method for reallocating lost Case-mix to hospitals who established observation units in previous years (the "early-adopters") and away from hospitals who have failed to establish observation capacity;[5]

5a) Adopt a set of "soft" (or desired) targets for Maryland hospital industry performance for Medicare and All-payer categories in terms of the number of ODS cases as a proportion of total admissions (see **Table 7**); and 5b) apply an additional incentive mechanism (either option 1 or option 2 – shown in **Tables 8a and 8b**) presented in the body of this recommendation to continue to induce Maryland hospitals to appropriately shift ODS cases to ambulatory settings;

The use of a continued incentive structure would seek to reallocate a certain magnitude of revenue from poorer performing hospitals (hospitals who continue to have proportions of ODS cases in excess of the State-wide average – by APR-SOI cell) to better performing hospitals (those who have proportions of ODS cases below the State-wide average). The staff presents two alternative magnitudes of revenue for reallocation – Table 8a shows a simulation of placing $10 million at risk for reallocation and Table 8b shows a simulation of placing $20 million of revenue at risk. This methodology is described in more detail in Appendix III to this recommendation.

6) Adjust all hospitals' FY 2011 CPCs for the presence of denied cases that generate excess rate capacity that occurred in FY 2010. A majority of denied cases in the system also appear to be ODS cases and thus will be subject to the policy changes associated with ODS cases. Thus the ODS policy will largely handle the denied case issue in future years. Staff continues to believe that denied cases for FY 2010 should be removed from hospital CPC targets for compliance and charging purposes. Denied cases are by definition not inpatient cases and should not count toward the generation of a hospital's "rate capacity." To do so, would be to charge all payers for cases and charges denied by one payer.

7) Establish a separate OBS Rate Center for FY 2011 and revise the current rate method for charging for Recovery Room time;

8a) Make OBS cases and one-day surgical cases subject to the CPV starting in FY 2011. Excluding these cases from the base CPV provides a strong incentive for hospitals to over-utilize services per case in order to establish a higher than appropriate base, upon which they will be measured for future year to year changes in case charges and resource use; and 8b) exempt OBS cases from the application of any case mix cap imposed on outpatient cases (based on the final approved FY 2011 Rate Update Recommendation).

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[5] This MHA proposal is currently under development and subject to final MHA approval – however staff is currently in basic support of the proposed discussed thus far. It is expected that this proposal will be available for review and consideration by staff and the HSCRC by the June public meeting of the Commission. In the event this proposal does not receive final hospital industry endorsement or the proposal is not acceptable to HSCRC staff, staff will propose its own method for reallocating both lost rate capacity and case mix at the June meeting of the HSCRC.

Appendix I – White Paper by the Society of Hospital Medicine's Expert Panel on Observation Units

The Observation Unit: An Operational Overview for the Hospitalist

This White Paper is a collaborative effort of the Society of Hospital Medicine's Expert Panel on Observation Units. Adrienne Green, MD, Chair of the Expert Panel, provided leadership for the work and is largely responsible for both the content and conceptual framework of the white paper.

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Introduction

Observation services are provided to patients with an acute clinical condition whose need for acute care hospitalization is unclear after their initial evaluation and management. Per Medicare, "hospital observation services are defined as those services ... that are reasonable and necessary to evaluate the outpatient's condition or determine the need of that patient's admission to the hospital as an inpatient."[1] Some patients have a iagnostic syndrome which may indicate a life threatening disease (e.g. the patient with chest pain that may represent acute myocardial infarction). Others have an emergent condition (e.g. an asthma exacerbation) requiring treatment for a longer time period than can be provided in the Emergency Department (ED). With a period of observation and focused management, 4 out of 5 patients such patients avoid the need for hospitalization.[2] Observation units have been used to manage these patients with improved patient outcomes, avoidance of unnecessary admissions, shorter lengths of stay, cost savings, improved compliance with regulatory standards, decreased malpractice liability, and improved patient satisfaction.[3-6]

Historically, the observation unit has been within the purview of the emergency physician but with the advent of Hospital Medicine, there is an increasing role for the hospitalist to provide clinical care in the observation unit and to participate in observation unit leadership. The Society of Hospital Medicine convened an expert panel in July 2007 including hospitalists, emergency physicians, cardiologists, nurse specialists, pharmacists, and a case manager. The goal of the panel was to develop a review article on observation medicine and its implications for the hospitalist.

Observation Unit Operations

There are several critical administrative components to successful observation units. There must be high-level institutional support for the program with a commitment to adequate staffing, resources and facilities (to be described further below). The service must be managed by strong physician and nurse leaders whose responsibilities include maintaining appropriate staffing, acquiring needed resources, enforcing policies and procedures and interfacing with hospital leadership.[4] These leaders use continuous quality improvement to advocate best practices, design and implement improvement initiatives, and provide feedback of a credible process and outcome dashboard to staff. Ideally, the physician leader is also clinically active in the observation unit.[3]

Staffing for observation services varies dependent upon the structure of the unit and the services provided. Physicians who provide the appropriate spectrum of care include emergency physicians, internists, family practitioners, pediatricians and pediatric or adult hospitalists. Emergency and critical care trained nurses are particularly well suited to provide care in the observation unit. Mid-level providers (e.g. nurse practioners and physician's assistants) are used in many units to supplement physician services. Housestaff do not usually provide care in observation units. However, interested housestaff in academic programs with well developed observation services may devote some of their elective time to observation medicine. This should be a considered rotation for pediatric and internal medicine residents interested in hospital medicine or hospital medicine fellows. Other providers such as clinical pharmacists, nurse case managers and social workers should be available to and familiar with the practices of the observation unit.

Physician staffing of observation units can be divided into "open" and "closed" models. The open model allows all hospital clinicians to admit to the observation unit. This is

similar to the traditional hospital model for inpatient care where all physicians in the community can admit their patients to the hospital. The closed model limits privileges to admit to the observation unit to a select group of physicians (e.g. emergency physicians or hospitalists) with expertise in providing observation services. Many advocate that the best practice is the closed model of care. In the closed model, patients admitted to the observation unit are more likely to have appropriate diagnoses for observation, physicians are more likely to use standard protocols, and are more readily available to make disposition decisions. The structure and benefits of this model are similar to the current hospitalist model of inpatient care.

To maintain quality and efficient patient care, physicians should have the observation unit as their first priority and schedules should allow physicians to fully develop skills in observation medicine. Infrequent rotation of a large number of physicians through the observation unit is not conducive to optimal care. Effective coverage is on-site (i.e. in the hospital) and does not rely on an "on-call" system from home. Competencies are important for all observation unit staff and should be tailored to the type of services provided. Providers should receive targeted training and be comfortable with the high patient turnover that occurs in these units.

Location of observation services varies between institutions. Some programs have a specifically designated area within the ED, a discrete unit adjacent to the ED, or a specific unit on a distinct hospital ward. Others have no designated unit but scatter the observation patients throughout the institution. These "virtual units" allow for flexibility but can lead to decreased efficiency. The best practice is to have a distinct unit which supports the concentration of a staff trained in the nuances of observation services and enhances the ability to implement clinical protocols and maintain consistency of care.

Observation Unit Clinical Care and Outcomes

Carefully chosen diagnoses with established clinical pathways are crucial to a successful observation program. A new program should focus on relatively few diagnoses and expand as staff gain experience. The observation unit should not be used for "social admits" nor as an overflow unit.

Common adult observation unit admission diagnoses include asthma exacerbation, chest pain/rule out acute coronary syndrome, congestive heart failure (CHF), syncope, electrolyte disturbances and dehydration (table 1). Common pediatric observation unit admission diagnoses include asthma exacerbation, gastroenteritis and dehydration, and concussion. Some patients have diagnostic syndromes that may represent life threatening diseases such as shortness of breath from CHF or abdominal pain from acute appendicitis. Other patients are those with a condition requiring acute therapy but who have a high probability of successful treatment within 24 hours if managed in an observation unit. Examples include the patient with asthma who has not improved or the patient with CHF who continues to experience symptoms of fluid overload after four hours of therapy in the ED.

The success rate of diagnostic evaluation of potentially dangerous syndromes is improved with observation. For example, for patients with chest pain the use of observation nearly eliminates the problem of missed diagnosis of myocardial infarction (<1%).[2] The average performance without an observation unit is a 2% to 5% missed diagnosis rate with a doubling of mortality.[7] Additionally, inpatient admission for these

patients would result in higher cost without clinical benefit and missed diagnoses could lead to significant cost with respect to malpractice.

Treatment of emergent conditions is also improved with observation. Patients with acute emergent conditions treated in an observation unit have been shown in clinical trials (including randomized clinical trials) to be successfully treated in 80% of cases with length of stays (and thus costs) less than half of the traditional acute inpatient service.[8, 9] For example, approximately 20% of patients with acute asthma exacerbations are not successfully treated during their 3 to 4 hour ED stay. With an observation unit stay 80% of such patients, who would otherwise have to be admitted to the hospital, can be discharged home after 12 hours.[8, 9]

Explicit inclusion and exclusion criteria should be established to delineate patients appropriate for observation versus inpatient admission. Exclusion criteria are typically factors that indicate the patient is too sick for or requires more services than can be provided in an observation unit. Examples of inclusion and exclusion criteria for admission to a Heart Failure Observation Unit are outlined in tables 2 and 3.

Medical care provided in the observation unit should be protocol based and diagnosis specific. For example, the chest pain patient should be placed on a continuous cardiac monitor, have serial cardiac enzymes and a stress test if indicated. An asthma clinical pathway should include routine vital signs, pulse oximetry, and medications such as bronchodilators and corticosteroids.[5] All clinical protocols should include: admission inclusion/exclusion criteria, observation unit interventions (e.g. diagnostic options, monitoring, and preferred treatment modalities), and discharge criteria.[4]

Validated observation unit heart failure pathways (figure 1) have demonstrated improved outcomes compared with non-standardized care.[10] A before and after study of observation unit heart failure patients compared uncontrolled physician management to protocol driven care. Protocol managed patients had a 44% lower rate of 30 day HF revisits ($p=0.000$), 36% fewer 30 day HF readmissions ($p=0.007$), and despite an absolute 9% increase in observation unit discharge rates ($p=0.008$), a 10% decrease in hospitalizations ($p=0.008$).[10] Protocols also increase compliance with The Joint Commission standards for quality of care for heart failure.[10, 11]

The protocol driven approach also applies to the patient with chest pain. Low to moderate risk patients may be admitted to a Chest Pain Unit (CPU). CPU protocols may be used for further evaluation and a determination can be made regarding which patients can be safely discharged to home versus those who require inpatient admission for further workup and intervention [12-19].

Sample discharge criteria and recommendations for an effective CPU discharge are outlined in table 4. These may be adapted for observation unit patients with other diagnoses. Highlights include education, medication reconciliation and prescriptions and communication with the patient's primary care physician or physician for appropriate follow up.

Observation Unit Economics

The economics of observation units are complex yet important to understand when determining if an observation unit will be beneficial for your hospital. Most of the

research demonstrating cost savings in observation units has been done in the area of chest pain evaluation. It has shown that for patients with chest pain observation provides significantly reduced cost of care compared with inpatient hospital admissions (table 5).[2, 15, 17, 20-28] Similar savings have been observed for a variety of other conditions including heart failure, asthma, and upper gastrointestinal bleeding (table 6).[8, 9, 29-36]

The economics of observation for heart failure are multifaceted because most heart failure patients are elderly and have Medicare. Because of the nuances of Medicare DRG (diagnostic related group) and APC (ambulatory patient classification) reimbursement, the economic benefits of a HF observation unit are derived from decreased length of stay, decreased number of unreimbursed readmissions and lower intensity of service (observation unit costs being significantly lower than intensive care or other inpatient care). The economic benefits of observation unit heart failure management are borne out even for those patients who fail 24 hours of OU care and require inpatient hospitalization. Observation unit management has been shown to decrease the median inpatient length of stay, inclusive of the observation unit admission time, from 4.5 to 3.0 days (p=0.08).[10] In the above study, the HF protocol cost a mean of $81 per patient, this was offset by a savings, predominately the result of unreimbursed readmission avoidance, of an annualized $89,321 in 1997 dollars.[10]

In an observational cohort study, low to moderate risk patients with heart failure who were treated in an observation unit had a length of stay half that of similar patients directly admitted to the hospital. Of patients hospitalized after a heart failure observation unit stay, the length of hospital stay was shorter than the direct admission group, saving a mean of 43.2 bed hours. Savings by observation unit use was estimated at $3600 per patient.[37]

Physician compensation for observation services is comparable to compensation for inpatient services and was standardized with the development of two sets of CPT (current procedural terminology) codes for observation in 1993 and 1998.[38]

Performance Measurement for the Observation Unit

All observation units should have a robust quality improvement program led by the observation unit medical director. The quality improvement program is charged with maintaining safe, high quality, efficient care in the observation unit. The consistent use of relevant and established clinical practice guidelines (e.g those developed by the American College of Cardiology (ACC) and American Heart Association (AHA) for acute coronary syndrome and heart failure) should be mandatory.[39-41] Other relevant quality and regulatory requirements include, but are not limited to, 1) the CMS and Joint Commission "pay for reporting" requirement for outpatient quality measures which include patients with acute myocardial infarction (AMI) who are treated in a hospital observation unit and subsequently transferred to a different hospital for treatment [11] and 2) the AQA and the American Medical Association Physician Consortium for Performance Improvement (AMA PCPI) physician level measures (e.g. Electrocardiogram Performed for Non-Traumatic Chest Pain).[42]

Patient safety standards such as "Safe Practices" by the National Quality Forum and the National Patient Safety Goals by the Joint Commission should also be reviewed by

observation unit leaders, adopted as appropriate and then assessed for effectiveness. Important practices to evaluate include communications, medication reconciliation, transitions between care settings and documentation standards.

Hospitals, and therefore observation units, must evaluate patient experience and satisfaction through the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) which was recently mandated by CMS for public reporting.(43, 44) Traditional patient satisfaction surveys administered by proprietary firms such as Press-Ganey and The Jackson Organization are also recommended.

Table 7 outlines a "starter set" of performance measures for an observation unit. A standardized and multidisciplinary approach for monitoring OU quality, safety and efficiency is necessary. Review of clinical and administrative policies, procedures, protocols, and standardized order sheets, should be a part of this process. The program should also analyze financial performance, including utilization, reimbursement rates, revenue and costs in the context of hospital operating performance.

Conclusion

The outcome and efficiency benefits that observation medicine and observation units have provided for patients requiring observation services are similar to those that hospitalists have provided for inpatients. Over the last decade, hospitalists have diversified to include not only clinicians with an expertise in inpatient care but also expertise in quality and safety, hospital leadership and, from the academic perspective, clinical and outcomes research. Hospitalists, therefore, seem well situated to integrate the opportunities and challenges of observation medicine into their expanding scope of work. Collaboration between hospitalists, emergency physicians, hospital administrators and academicians will serve not only to promote outstanding observation care but also to focus quality improvement and research efforts for the observation unit of the 21st century.

Table 1: Examples of Conditions Appropriate for Adult Observation Unit Admission

Evaluation of Diagnostic Syndromes	Treatment of Emergent Conditions
Chest pain	Asthma
Abdominal pain	Congestive Heart Failure
Fever	Dehydration
Gastrointestinal bleed	Hypo or hyperglycemia
Syncope	Hypercalcemia
Dizziness	Atrial fibrillation
Headache	
Chest Trauma	
Abdominal Trauma	

Table 2:

Suggested Observation Unit Heart Failure Protocol Entry Guidelines (45)

Adapted with permission from Peacock FW, *Ann Emerg Med* 2006; 47(1): 26.

OU HF Protocol Entry Guidelines **Must have at least 1 from each category below**	
History	▪ Orthopnea ▪ Exertional dyspnea ▪ Paroxysmal nocturnal dyspnea ▪ Shortness of breath at rest ▪ Leg or abdominal edema ▪ Weight gain
Physical Examination	▪ Jugular venous distension or abdominal jugular reflux ▪ S3/S4 ▪ Rales ▪ Edema
CXR	▪ Cardiomegaly ▪ Pulmonary vascular congestion ▪ Kerley B lines ▪ Pulmonary edema ▪ Pleural effusion
Laboratory	▪ BNP > 100 pg/mL

Table 3:

Observation Unit Heart Failure Protocol Exclusion Criteria (10)

Adapted with permission from Peacock FW, *CHF* 2002; 8(2): 68-73.

OU HF Protocol Exclusion Criteria **Requires inpatient admission/not a candidate for OU if meets any criteria below**	
Clinical	▪ Unstable vital signs despite ED therapy (BP > 220/120 mmHg, RR >25 breaths/min, HR >130 bpm, or T > 38.5° C) ▪ Unstable airway, or nasal cannula oxygen requirement > 4 L/min to maintain SaO2 > 90% ▪ Clinical scenario suggests cardiogenic shock, or patient with signs of end organ hypoperfusion ▪ Require continuous vasoactive medication other than nesiritide (e.g. nitroglycerin) ▪ Clinically significant cardiac arrhythmia ▪ Acute mental status abnormality ▪ Chronic renal failure requiring dialysis ▪ Peak flow <50% of predicted, with wheezing
Laboratory and Testing	▪ ECG or serum markers diagnostic of myocardial ischemia or infarction ▪ Severe electrolyte imbalances ▪ CXR with pulmonary infiltrates

Table 4: Chest Pain Unit: Discharge Criteria and Elements of an Effective Discharge Plan

Discharge Criteria	▪ No anginal pain ▪ No significant new ECG changes ▪ No significant new arrhythmia ▪ Normal cardiac biomarkers. ▪ Negative noninvasive study or arrangements for outpatient stress testing within 3 days in selected patients at low risk. ▪ No other existing medical condition identified which would require inpatient evaluation
Elements of an Effective Discharge Plan	▪ Patient education re: risk factor reduction for CAD ▪ PCP appointment within one week. ▪ Appointment for stress testing as outpatient within 3 days in carefully selected low risk patients ▪ Notify PCP or other of OU admission (e.g. phone call or detailed discharge summary) ▪ Medication reconciliation and prescriptions prior to discharge ▪ Follow up phone call, if possible, 24 hours after discharge to review medications and appointments with the patient and/or family

Table 5: Economic Effect of Use of Observation for Chest Pain Patients(2, 15, 17, 20-28)

Date of Study	Author	All* Obs/Hosp n	Obs/Hosp Change $	Saving Obs Hosp (%)	D/C Home Bs/Hosp n	Obs/Hosp Charges $	Savings Obs Hosp (%)
1989	DeLeon	327/354		20			
1993	Kern						
1994	Hoekstra	375/72	2700/3958	68	289/58	1358/3061	44
1994	Rodriquez		1246/2810	44			
1994	Sayre		1299/2748	47		995/2748	36
1996	Gomez	49/160	893/2063	43			
	Gomez	49/43	893/1349				
2000	Graff				1494/233	2214/5464	41
Date of Study	**Author**	**All* Obs/Hosp n**	**Obs/Hosp Change $**	**Saving Obs Hosp (%)**	**D/C Home Bs/Hosp n**	**Obs/Hosp Charges $**	**Savings Obs Hosp (%)**
1994	Gaspoz	312/551	1318/2914	45			
1995	Field		1018/2477	41			
1997	Mikhail				502/611	894/2364	38
1997	Roberts	82/83	1528/2095	73	45/37	803/2410	33
1997	Graff		1210/2704	45		945/2714	35
1998	Farkouh	212/212		62			

* n hosp = number of hospitalized patients n obs = number of observation patients

Table 6: Economic Effect of the Use of Observation on Various Clinical Conditions(8, 9, 29-36)

Diagnosis	Date of Study	Author	Cost Savings $/case	Percentage of $ Hospital (%)	Charge Savings $/case
Infections	1997	Roberts	1025		
Heart Failure	1993	Dunbar			2866
Asthma	1982	Zwiche			854
	1985	Willet			888
	1997	McDermott	1045		
	1998	Rydman	1045	54	
Pneumothorax	1986	Talbot-Stern			2640
	1988	Vallee			4244
Upper GI Bleeding	1995	Longstreth	990		
	1998	Tham	2943		

Table 7: Suggested domains of Performance Measures for an Observation Unit

Quality of Care	▪ ACC/AHA Quality Measures ▪ ACEP Quality Measures ▪ IDSA Quality Measures ▪ AMA PCPI Quality Measures ▪ Discharge Instructions provided to patient ▪ Patient Education documented
Patient Safety & Risk Management	▪ Medication Reconciliation ▪ Adverse Events (e.g. falls, medication error) ▪ Unanticipated Returns to the ED/OU ▪ Return visits post discharge for same diagnosis (72 hrs, 3 months, 6 months) ▪ Misdiagnosis ▪ Care Coordination/Follow up with Primary Care, Cardiology and other relevant treating physicians ▪ # patients leaving AMA ▪ Evaluation of closed malpractice claims ▪ NQF Safe Practices ▪ Joint Commission National Patient Safety Goals
Efficiency & Utilization	▪ Physician response time to patient evaluation, History and Physical Exam, and orders ▪ Time from order entry to patient arrival in CPOU ▪ Patient volume ▪ Appropriateness of admissions ▪ LOS (in OU and total LOS if admitted) ▪ % OU patients admitted as inpatient (overall goal all diagnoses < 30%*)
Patient/Provider Experience & Satisfaction	▪ Patient Experience of Care (CAHPS) ▪ Patient Satisfaction ▪ ED Department Satisfaction ▪ Inpatient Physician Satisfaction ▪ Follow up Physician Satisfaction
Compliance	▪ Physician Documentation and Coding meets regulatory standards

* may be higher for some diagnoses (e.g. CHF)

Figure 1: Observation Unit Heart Failure Management Protocol (45)

Adapted with permission from Peacock FW, *Ann Emerg Med* 2006; 47(1): 26.

Monitoring	▪ Continuous ECG and pulse oximetr ▪ Strict input and output, 1,800-mL fluid restriction, no added-salt diet ▪ Patient weights
Therapy (based on patient status and clinical judgment)	▪ ACE inhibitor recommended (may hold if using nesiritide) ▪ Topical nitrates ▪ Furosemide algorithm o Up to double daily 24-h dose, given as single IV bolus (180mg maximum) o Double previously administered dose and repeat if fail to meet 2-h urine output goal 2-h urine output goals ▪ 500 mL if creatinine <2.5 mg/dL ▪ 250 mL if creatinine >2.5 mg/dL ▪ Nesiritide 2 ug/kg IV bolus followed by 0.01 ug/kg/min
Diagnostic Procedures	▪ Ejection fraction, measured by echocardiography, unless systolic HF is known or diastolic HF was diagnosed within 1 year ▪ CK-MB and troponin T measured every 6 h, For 12 h
Consultation/education	▪ HF specialist consult in all; social work home health care, and dietary as indicated ▪ View 15-min HF video and smoking cessation video as indicated ▪ Receive personalized discharge instruction packet

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Appendix II – MHA Paper on ODS Cases

MHA Paper on One Day Length of Stay Cases

March 5, 2010

HSCRC One Day Stay Workgroup

Summary of One Day Stay Issues
March 5, 2010

Introduction

The purpose of this paper is to present MHA's position regarding "One Day Stay" Cases ("ODS") in the HSCRC system. Developing appropriate payment levels for ODS cases involves many complex and interrelated issues. Key considerations include:

- Amount of One Day Stay Cases in the Rate Setting System
- Historical perspective of the HSCRC's Charge per Case ("CPC") system, including treatment of third party denials.
- Current HSCRC Rate Structure of Observation Services (including CPV)
- Financial incentives in the CPC system
  - Payment levels and rate capacity
  - Effect on changes in Case Mix Index ("CMI")
- Financial and compliance risks associated with ODS cases and payment levels
- The costs associated with treatment of ODS cases in both inpatient and outpatient settings
- Clinical validity and medical necessity of treating ODS cases

Staff recently proposed a number of changes to the regulatory system to address ODS cases and the expected increased use of Observation services. This paper will discuss the issues above in detail, including the effects of proposed system changes on payment levels and the use of observation services.

History/Background

One Day Stay Cases have always been a part of the Maryland rate setting system. ODS cases are defined as hospital admissions with a length of stay of zero days or one day. (LOS = 0 or 1). ODS cases include both medical and surgical cases. The decision to admit a patient is ultimately based on a physician's decision in the best interest of treating the patient. There are valid clinical reasons for admitting a short stay patient, rather than providing outpatient services only.

As a percentage of total cases in Maryland, ODS cases accounted for 23% of Rate Year 2009 total admissions. Nationally, ODS cases accounted for 18% of all cases in 2006, the most recent year of HCUP data provided. As a percentage of Maryland's Rate Year 2008 Medicare cases, ODS cases accounted for 17.5% of the total Medicare cases. Nationally, Medicare ODS cases accounted for 13.4% of Medicare cases.

Establishment of the HSCRC's CPC System

In the late 1990's, the HSCRC's rate setting methodology established an inpatient revenue constraint system, known as its Charge per Case ("CPC") system. The CPC system calculated the average charge per case during a base period agreed to by the hospitals and the HSCRC. The system established a CPC target that constrains inpatient

revenue growth based on the annual update factor and the annual allowable change in case mix ("CMI"). It is important to note that Hospital rates were based on reasonable costs as determined by the commission. These rates were utilized to set the base.

As established above, ODS cases have historically been a part of hospital reporting and were included when hospital CPC's were initially calculated based on reasonable costs. The HSCRC's CPC system is based on averaging the actual charges of all cases together within an APRDRG/Severity of Illness (SOI) cell (a "cell"), and weighting all cells based on the overall hospital average. (At the time of CPC inception, the system was based on MD CMS DRG's by Payor classification.) Table 1 below is an example of the establishment of an initial CPC and DRG weight for an example cell, updated over a ten year period.

Table 1

	CPC: Year 1			CPC: Year 10 (3% Inflation; 10 yrs)			Payment
LOS	Cases	CPC	Charges	Cases	CPC	Charges	Increase
1	10	$ 2,000	$ 20,000	10	$ 2,600	$ 26,000	30.0%
2	30	4,000	120,000	30	5,200	156,000	30.0%
3	30	8,000	240,000	30	10,400	312,000	30.0%
4+	10	20,000	200,000	10	26,000	260,000	30.0%
Total	80	$ 7,250	$ 580,000	80	$ 9,425	$ 754,000	30.0%
			30% Increase in CPC				
Overall base payment		$ 10,000			$ 13,000		
Case Weight		0.73			0.73		

The averaging of the actual charges within a cell creates the concept of "rate capacity" created by the actual charge above or below the approved charge for each cell. Rate capacity, or negative rate capacity, was built into the original CPC targets and still holds true today. Table 2 reflects rate capacity using the example from Table 1 above.

HSCRC One Day Stay Workgroup

Summary of One Day Stay Issues

March 5, 2010

Table 2

	CPC: Year 1				CPC: Year 10 (3% Inflation; 10 yrs)			
LOS	Cases	Actual CPC	Approved CPC	Rate Capacity	Cases	Actual CPC	Approved CPC	Rate Capacity
1	10	$ 2,000	$ 7,250	$ (5,250)	10	$ 2,600	$ 9,425	$ (6,825)
2	30	4,000	7,250	(3,250)	30	5,200	9,425	(4,225)
3	30	8,000	7,250	750	30	10,400	9,425	975
4+	10	20,000	7,250	12,750	10	26,000	9,425	16,575
Total	80	$ 7,250	$ 7,250	$ -	80	$ 9,425	$ 9,425	$ -
			30% Increase in CPC					
Overall base payment		$ 10,000				$ 13,000		
Case Weight		0.73				0.73		

In Table 2 above, all cases were averaged to create an approved payment for each cell establishing rate capacity or negative rate capacity in the base period. CPC's were developed using cases with different lengths of stay, and thus, different actual payment levels. The average payment is reduced by including ODS cases, and conversely, the average payment is increased by including cases with longer lengths of stay. The CPC system adjusts only the overall target, thus rate capacity holds in the current period.

When the CPC system was established in the late 1990's, ODS cases were included in developing the average payment levels within each cell. From 1998 – 2000, the period which was used to establish the CPC system, approximately 20% of total cases were ODS cases. In 2008, 21% of Maryland cases were ODS cases, thus the overall percentage of Maryland's ODS cases has remained constant throughout the period. As reflected in Table 2 above, ODS cases generated rate capacity since they were below the average payment level within the specified cell.

Using 1998 data, Table 3 below reflects a summary of rate capacity by LOS, when the initial charge per case system was established. This table uses included CPC data only.

HSCRC One Day Stay Workgroup

Summary of One Day Stay Issues
March 5, 2010

Table 3

	LOS		
	0 or 1	2 +	Total
Cases	116,299	472,799	589,098
Approved Charges	$ 579,369,336	3,505,551,820	$ 4,084,921,156
Actual Charges	319,671,143	3,697,326,136	4,016,997,279
Approved charges above (below) actual charges	$ 259,698,193	$ (191,774,316)	$ 67,923,877
% Variance - Actual Charges Above/(Below) Approved Charges	**44.82%**	**-5.47%**	**1.66%**
% of Total Cases	*19.7%*	*80.3%*	100.0%

As reflected in Table 3, the system was based on average payments within a cell to establish case weights and payment levels. ODS cases accounted for 19.7% of the total cases when CPC was established. At its inception, ODS cases generated rate capacity of $260 million. Conversely, cases with a LOS of 2+ decreased rate capacity by $192 million.[1] This is an important concept when developing payment levels, as by definition, ODS cases increased rate capacity while cases with longer LOS decreased rate capacity, similar to Table 2 above.

The concept of average payment levels was constructed purposefully to provide financial incentives in the system. By receiving an average payment per DRG/cell, the CPC system was designed to reward hospitals that reduce length of stay. A byproduct of the system is that substantial financial impacts occur when and if the number of ODS cases in the system changes. If the percentage of ODS cases had increased over time, hospitals would recognize a greater financial benefit under the CPC system. Conversely, if the number of ODS cases had decreased over time, hospitals would be negatively impacted under the system. Neither case applies however, as the percentage of ODS cases has remained constant over time. A review of the literature regarding the adoption of the CPC system reveals no discussion about ODS cases. They were simply part of the arithmetic.

Table 4 below is similar to Table 3 above, using Rate Year 2009 data. Table 4 reflects rate capacity in Rate Year 2009; comparing cases with a LOS of 0 or 1 to cases with a LOS of 2 +, using included CPC data only.

[1] Table 3 reflects an approximate calculation of rate capacity in 1998 and is not exact. It calculates the actual payment by MDCMS/Payor cell compared to the "approved" payment for that cell. The "approved" payment was calculated by applying the approved 1998 case weight of a cell to the actual average payment for all DRG's by hospital. 1998 Hospital CPC data was not available for all hospitals. The net total suggests a 1.66% overcharge which is not likely.

Table 4

	LOS		
	0 or 1	2 +	Total
Cases	161,904	593,049	754,953
Approved Charges	$ 1,224,225,510	$ 6,906,362,098	$ 8,130,587,608
Actual Charges	838,755,784	7,299,250,599	8,138,006,383
Approved charges above (below) actual charges	$ 385,469,726	$ (392,888,501)	$ (7,418,775)
% Variance - Actual Charges Above/(Below) Approved Charges	**31.49%**	**-5.69%**	**-0.09%**
% of Total Cases	*21.4%*	*78.6%*	*100.0%*

As reflected in Table 4, ODS cases generated rate capacity of $385 million, while cases with a LOS of 2 + reduced rate capacity by $392 million. The percentage of ODS cases increased only slightly from 1998 to 2009 (19.7% to 21.4%). As a percentage variance, ODS cases generated a lower level of rate capacity versus the 1998 base period, 31.5% versus 44.8%. Overall, Table 4 reflects the continued balance of rate capacity generated by ODS cases versus reductions in rate capacity generated by cases with a LOS of 2 +.

Current HSCRC Rate Structure for Outpatient Observation Services

The rate system currently provides a structure to bill separately for medical observation services. Hospitals can charge 1.5 Emergency Department RVU's for every documented hour of care the patient receives. This structure was developed as a proxy for the payment of one day of clinical care. For example, a hospital with an EMG rate of $40 per RVU would generate a charge of $1,080 to observe a patient for eighteen hours, similar to the approximate charge of an inpatient Medical/Surgical day. To bill separately for observation services, the hospital must document that the patient was in the care of a physician during the observation, and must frequently capture data that the patient is progressing toward admission or release.

With respect to outpatient surgical cases, a Same Day Surgery ("SDS") charge is applied to capture the cost of patient recovery. The SDS charge is an average charge that is applied regardless of recovery time. In many cases, patients may require an extended period of recovery and the patient is ultimately placed on an inpatient unit to be monitored. CMS guidelines allow hospitals to *bill* for this additional time, but add on payments for extended recovery are not recognized as the APC bundled payment for outpatient surgery includes all recovery time without regard to length of recovery.

In addition to the unit rate structure, the HSCRC will implement its CPV system in FY2011. Similar to the CPC, CPV provides an overall outpatient target for the hospital to manage its outpatient business utilizing FY2010 as a base. As part of its CPV system, separate weights will be created for patients requiring extended observation services. Similar to Medicare's requirements for observation payment, hospitals must

document outpatient services provided and record CPT code G0378 for observation services, along with a high level (Level 4 or 5) emergency or clinic visit.

Creating separate weights for observation services is an improvement over the previously proposed CPV system, however certain issues warrant further investigation. The historical data used to develop separate weights for observation services is based on the limited number of hospitals with fully implemented observation services. A review of the HSCRC 2009 data reveals that only ten hospitals used observation services with some degree of magnitude, as defined by the presence of the appropriate billing codes. There are likely more than ten hospitals using Observation services but the RY2009 data do not reflect them.

It appears that some confusion over use of the proper codes may make the data incomplete and inaccurate. Without the presence of the appropriate codes, the charges for hospitals "observing" patients for extended periods without admission (e.g., long ED stays) are not captured in the data. Furthermore, costs associated with treating observation patients may not be fully captured in the current ED structure, resulting in lower observation charges and lower payment levels under CPV.

Financial Impact of Moving ODS Cases to Observation

When considering moving ODS Cases to Observation, it is important to understand the financial impacts on the hospital, keeping in mind the mechanics of the CPC as outlined above. In the CPC system, there are two primary financial barriers to moving ODS cases to Observation. First, as reflected above, the hospital will lose rate capacity of ODS cases that was historically established in the system. Second, hospitals may be subject to the HSCRC's annual "governor" that limits overall increases in CMI. There are also additional financial barriers in the new CPV system as well as the utilization of observation services, which will be discussed in a separate section.

As established in the Tables above, hospitals generate rate capacity on ODS cases, a concept inherent in the CPC system since its inception. Removing ODS cases from the CPC without other adjustments reduces inpatient rate capacity since payments for cases with longer lengths of stay remained unchanged during the same period. As noted in Table 4, the aggregate rate deficit under the CPC in RY2009 for cases with LOS 2+ was $392.9 million. Simply removing the low charge cases from any average distorts the system, and since the CPC is an average, the same result would occur unless the CPC is adjusted to reflect the removal of the ODS cases. Table 5 below reflects an example of decreasing the number of ODS cases in the CPC system.

HSCRC One Day Stay Workgroup

Summary of One Day Stay Issues

March 5, 2010

Table 5

	CPC: Current Year				
LOS	Cases	Actual CPC	Approved CPC	Rate Capacity	Net Rate Capacity
1	*8*	*$ 2,600*	*$ 9,425*	*$ (6,825)*	*$ (54,600)*
2	30	5,200	9,425	(4,225)	(126,750)
3	30	10,400	9,425	975	29,250
4+	10	26,000	9,425	16,575	165,750
Total	78	$ 9,600	$ 9,425	$ 175	$ 13,650
Net Over/(Under) Charge			$ 175		
% Over/(Under) Charge			1.9%		

In this case, removing two cases with LOS = 1 resulted in overall lost CPC rate capacity of $175 per case (1.9%), or total CPC rate capacity of $13,650 ($6,875 x 2 cases). The hospital must reduce charges on all other cases to achieve the compliance target of $9,425, or incur an overcharge of 1.9%. When the cases are moved to Observation, the hospital will likely receive payments of $2,600 per case in Observation and ancillary charges. The net financial impact is the loss of the $9,425 average payment, net of receiving $2,600 for Observation services, or $6,875 per case.

The rate capacity issue must be addressed when discussing how best to move ODS cases to Observation. As demonstrated in Tables 1 – 4, the system was established based on average payment levels that represented reasonable costs, including ODS cases. Simply eliminating ODS cases from the average prospectively does not account for the historical development of CPC, including ODS cases that lowered the overall payment average.

The second financial issue to consider in how to address ODS cases in the CPC system is the effect on CMI. Cells with a higher percentage of ODS cases tend to have a lower case weight than other cells. By shifting cases with lower case weights to Observation, hospital CMI's will increase. Currently, the HSCRC's CMI governor limits the amount of overall CMI growth allowable in a given year. Hospitals CMI increases are governed, or reduced, to achieve the overall CMI growth target. Table 6 below reflects the effect of CMI governor if ODS cases are reduced.

Table 6

	Base Period				Current Period			
	A	B	C	D = A*C	A	B	C	D = A*C
DRG	Cases	CPC	CMI	Case Weights	Cases	CPC	CMI	Case Weights
1	*10*	*$ 9,600*	*0.74*	*7.38*	*8*	*$ 9,600*	*0.74*	*5.91*
2	30	12,000	*0.92*	*27.69*	30	12,000	*0.92*	*27.69*
3	30	18,000	*1.38*	*41.54*	30	18,000	*1.38*	*41.54*
4	10	25,000	*1.92*	*19.23*	10	25,000	*1.92*	*19.23*
Total	80	$ 15,575	1.20	*95.85*	78	$ 15,728	1.21	*94.37*
Overall base payment		$ 13,000				$ 13,000		
CMI Change								**1.0%**
Governed CMI Change (Assuming 50% Governor)								**0.5%**

In this example, two cases from DRG 1 were shifted to Observation in the current period, causing an overall CMI increase of 1.0% (1.20 to 1.21). Assuming a 50% governor, the allowable CMI increase is 0.5%, reducing payment levels by 50% on all CPC cases. In addition to reducing rate capacity, hospitals would not receive full payment for the cases that remain under CPC as a result of the CMI governor.

Financial Risk in the Rate System and Financial Risk from Enhanced Compliance Programs Associated With Shifting ODS Cases to Observation

As demonstrated by the tables above, there are significant revenue issues that must be addressed when adjusting the CPC system to properly align revenues with costs, as is required by the Commission's mandate to approve charges that in total are reasonable related to the expense incurred in providing care. In addition to this HSCRC imperative, hospitals also face the financial risk of payment denials if it is demonstrated that any given admission was not medically necessary. Currently, most non-governmental payors use some form of concurrent Utilization Review ("UR") to determine if admissions are medically necessary. They work with hospital departments and deny inpatient payments for admissions that are deemed to be medically unnecessary. Governmental payors, most notably Medicare's Recovery Audit Contractor ("RAC") program are increasing regulatory enforcement by retroactively reviewing ODS admissions. Hospitals face large scale reviews of clinical data to determine whether admissions were medically necessary.

Increased use of Observation services is likely to mitigate the financial risk inherent in retroactive denials on any large scale. Hospitals in Maryland generally fall into one of three categories regarding Observation use. They include:

- Hospitals with historic use of observation services, developed before the implementation of Charge per Case. Hospitals historically using Observation would have had fewer cases in the CPC base period, resulting in a higher initial

CPC. In addition, prior to CPC, all hospitals were paid based on unit rates, and thus hospitals historically using Observation would have approximately the same revenue base (inpatient and outpatient combined) as other hospitals. By definition, these hospitals will not significantly increase use of Observation and would not be subject to lost rate capacity and the CMI governor as a result of implementing observation services. Further, these hospitals should have less compliance exposure to RAC and commercial denials by using Observation to a greater extent.

- Hospitals that recently implemented Observation. Hospitals that recently implemented Observation had ODS cases included in the CPC base and were subject to lost rate capacity and the CMI governor as a result of implementing observation services. These hospitals may have less compliance risk to RAC and commercial denials by using Observation to a greater extent, but they have already suffered revenue losses as a result of observation.
- Hospitals that have not implemented Observation. Hospitals that have not implemented Observation would not be subject lost rate capacity and the CMI governor as cases have not been shifted to Observation. These hospitals may have higher levels of compliance risk to RAC and commercial denials.

Because Observation services were not adopted at a uniform point in time, hospitals face different levels of financial risk from system changes (rate capacity/CMI governor) and from retrospective payment denials. Prospective changes to the rate system to address ODS cases will therefore affect hospitals differently. As noted above, payment levels were reduced for hospitals that recently implemented Observation, however they will logically have less risk associated with payment denials. Conversely, payment levels remained unchanged for hospitals that have not adopted Observation, however they may ultimately incur more denied cases.

Patient Care Costs: Inpatient versus Observation

The costs of the clinical care provided to patients in an inpatient or Observation setting must be analyzed when determining appropriate payment levels. There are many similarities and certain differences in the costs of treating patients as inpatients or observation patients. Unadjusted charge comparisons are not necessarily appropriate. An inpatient admission generates a fixed charge per day, while Observation generates hourly charges. Any unadjusted "charge" comparison will naturally suggest Observation "costs" are lower since the hourly charges may not equate to a full daily charge. If admission and observation are separated on an hourly "cost" or "charge" basis, the results may be similar. Detailed cost accounting for inpatient and observation services is required to identify true opportunities for cost savings, if they exist. Understanding costs, the true costs of care provided, is a critical component to providing adequate reimbursement for services provided

In many cases, the costs to treat inpatient and observation patients are the same. Whether inpatient or observation services are provided, the attending physician deemed

that the patient should progress further before release from the hospital. Patients that are admitted are placed on inpatient units and monitored for changes in symptoms. In hospitals using a "virtual observation" service, patients that have not been "admitted," but rather "observed," are also placed on inpatient units and monitored. Observation patients may stay at the hospital for an extended period of time, even in excess of 24 hours. Additionally, many hospitals "observe" patients for extended periods of time without regard to reimbursement structure. Requirements to capture the appropriate documentation to bill for observation services are onerous, especially in the context of a busy emergency department. Hospital and physician missions are to provide appropriate patient care. Hospitals must necessarily pay appropriate attention to reimbursement consequences to maintain their mission, but providing proper care is always foremost. Hospitals may monitor patients as outpatients in an emergency department for extended periods of time without billing for observation services, which may have reimbursement consequences without patient care consequences.

When a patient initially presents, a physician makes a clinical decision to admit, observe, or release a patient based on the patient's condition. Whether the physician decides to admit the patient as an inpatient or places the patient in Observation, hospital services are used at higher rate during the initial period. Various ancillary tests are usually immediately ordered to determine underlying causes for the patient's condition to determine the course of care. Nursing care may be provided at higher levels during the initial period to more frequently monitor and document signs and symptoms that lead to the appropriate diagnosis. The administrative burden on physicians and hospital staff to more frequently document patient progress in order to get paid for observation services may require additional staffing and physician coverage. Physician coverage expenses are an important consideration when implementing large scale changes to care delivery, although we recognize that these costs are outside of the HSCRC's regulatory authority. Hospitals across the country have also faced this challenge and many have opted to only bill for the Part B ancillary services incurred, and not bill for the Part A inpatient services for the particular patient. This is appropriate to address Medicare billing issues in other states. However, the regulatory system in Maryland requires a more comprehensive solution.

It is possible that observation services may provide opportunities to generate cost savings. As an example, a hospital specializing in cardiac care with large cardiac volumes may be able to more rapidly diagnose, treat, admit or release patients than a non-specialized cardiac hospital. Even in this case, utilization of services is likely the same as an inpatient but compressed into a smaller time period. However, real cost savings from observation services should be understood and quantified before large scale payment adjustments are warranted.

From a cost accounting perspective, costs to treat "observation" patients are spread among various departments depending on hospital operation. For hospitals that do not have a true medical observation service, the cost to treat a patient for an extended period may be captured in the Emergency Department (without corresponding RVUs) or on the inpatient unit if admitted. Hospitals with a virtual observation service may capture

costs in the inpatient routine centers, ultimately reclassifying costs to the emergency department as part of the annual cost report. To account for these costs however, hospitals use some inexact method of cost allocation, usually based on the number of observation patients to inpatients treated on the unit. A dedicated observation unit requires space, and fixed management and support costs to operate. From a surgical perspective, extended recovery costs may be captured in the recovery room during a standard recovery or, on an inpatient unit if an extended recovery is required.

In our discussions, Staff stated the need to reduce hospital costs and increase efficiencies. Our proposed recommendations below will address certain opportunities to recognize cost savings in the system, if validated by the data. Additionally, system savings (revenue reductions) may be generated by other forces outside of the HSCRC's regulatory authority. Hospitals may experience revenue reductions for observation patients either through operational changes or future RAC audits for medical necessity from October 2007 - present. Due to the complex documentation requirements and operational challenges with Observation, Maryland hospitals, like the rest of the country, may not fully capture revenue sufficient to cover the cost of all observation services provided. These factors will reduce the overall revenue stream of the hospital but they are not explicit components of the rate setting system.

Future cost savings from observation services, if any, should be quantified and applied to future rates. The Commission establishes an update factor on an annual basis and any discussion of global efficiencies with respect to ODS cases should be discussed in the payment workgroup. We recognize that the Commission's goal is to provide reimbursement that is fair and that is reasonably designed to cover the expense of providing care. The goal of our recommendations below is to adjust the system and provide reasonable rates to cover expenses.

Clinical Validity and Medical Necessity

The decision to admit a patient is a complex medical decision requiring a physician's judgment based on circumstances of the patients medical condition. There are valid and appropriate reasons for admitting patients to the hospital for a brief period of time. Hospitals have different patterns of ODS admissions based on a variety of factors, including types of clinical services provided, physician practice patterns, the services and resources available at the hospital and others. Case managers and UR personnel can work with physicians to determine the most appropriate treatment, but it is ultimately a physician's decision to determine the course of care, including whether to admit a patient.

Medicare regulations require that hospitals establish UR to determine appropriate levels of care. The current UR landscape involves reviewing inpatient admissions versus a set of medical criteria to determine if admission is/was required. Medicare requires that some set of standard criteria are used for review, whether generally accepted (Milliman and Roberts, Interqual), or a standard developed by the individual hospitals. The criteria

used to determine an appropriate admission are guidelines and are not absolute in nature.[2] Non governmental commercial payors have their own forms of UR, in the form of case managers and other personnel that work with hospital staff to "steer" the patient what the payor believes to be an appropriate level of care. On site, telephone and electronic approvals are used by commercial payors to authorize admission to the hospital. Market based forces in the form of payment denials provide powerful financial incentives to ensure efficient and effective hospital UR programs.

The HSCRC's rate system has a variety of financial incentives for hospitals to control costs on an aggregate basis (Annual Payment Update, CPC, CPV, ICC/ROC etc.). These incentives allow hospitals the flexibility to manage global costs in the context of payment levels. The rate system was never designed to dictate medical necessity of hospital admissions, or how physicians provide care. It is designed to provide reasonable rates to cover reasonable hospital costs. As noted above, an unintended and unforeseen consequence of the CPC averaging system is the disparate result in reimbursement for services with comparable costs, which should be corrected. UR is a required and a necessary function of the hospital and the payors to prevent inappropriate use of medical services. Each admission involves a specific interaction between patient and physician. It is ultimately a physician's decision to admit a patient to the hospital, but if the costs of treating a patient as a ODS or as an observation patient are the same, the reimbursement should also be the same. If the costs of treating an observation patient are lower than a ODS patient, the savings should be identified and adjusted for in future years. The MHA proposals address these issues.

MHA Proposal

As reflected in the narrative above, the underlying payment issues regarding ODS cases require careful consideration of proposed changes. The HSCRC's February 19th proposal outline addresses many of these factors, discussed at length during our last workgroup meeting. Our recommendations present the hospitals proposal, noting where we support and disagree with the Staff's outline. Correcting the flaws in the established CPC system and aligning payment incentives in the current system will make Observation versus inpatient admission indifferent to reimbursement, as it should be.

Recommendation 1: Exclude ODS Cases from the CPC system

We agree with the Staff that ODS Cases should be excluded from CPC and that the CPC system should be rebased. As demonstrated in the examples above, the rate system was built on a system of averages. The original CPC targets included a percentage of ODS cases that has remained unchanged over time. Excluding ODS cases from CPC and rebasing the rate system is the most effective way to align revenue with

[2] CMS does not recognize any empirical criteria, but relies on medical judgment to determine appropriate levels of care.

cost, and make the system indifferent to the admission versus observation decision. Consider the example in Table 7 below:

Table 7

	CPC: Current Year				
LOS	Cases	Actual CPC	Approved CPC	Rate Capacity	Net Rate Capacity
1	10	$ 2,600	$ 2,600	$ -	$ -
2	30	5,200	10,400	(5,200)	(156,000)
3	30	10,400	10,400	-	-
4+	10	26,000	10,400	15,600	156,000
Total	70	$ 10,400	$ 10,400	$ -	$ -

In Table 7, cases with a LOS = 1 have been removed from calculating the average payment and treated as "CPC pass throughs," similar to the current low charge exclusions. As such, a hospital would generate a $2,600 charge per case and receive no rate capacity benefit since they would not receive the full DRG payment. Since the outpatient observation payment for the service is expected to equal the actual payment of $2,600, the hospital is financially indifferent to the physician decision whether to admit the patient, or to treat the patient as an outpatient. After the system is rebased, the financial incentive is aligned appropriately since the hospital is at risk for the entire payment of $2,600. The hospital is indifferent to use of observation services from a reimbursement perspective.

As stated previously, the HSCRC's CPC system is a system of averages. This example increases the overall average payment for this cell, which occurs as the new mix of actual cases and charges are weighted. Rate capacity for cases with a LOS = 2 increases, however the negative rate capacity for cases with a LOS = 3 or 4 is reduced or eliminated, again as a product of a system based on averages. (In this example, cases with a LOS = 3 equal the overall average payment.) This maintains the integrity of the CPC system as the original CPC targets included the same level of ODS cases as the current experience. The rebased CPC is higher as a result, but it retains the incentives to manage inpatient cases within the overall revenue constraint of the system.

Another consideration is introduced by this approach - that an incentive may be created to increase LOS to gain rate capacity with a LOS = 2. This is unlikely to occur because compliance incentives in the market provide sufficient barriers to a hospital increasing LOS. Although ultimately unknown, the RAC program and third party payers

are in the position to deny medically unnecessary patient days on the "back end" of a hospital stay. We believe there is no risk that hospitals will increase LOS for these cases.

By definition this recommendation eliminates the effect of the CMI governor for appropriate changes in CMI. Historical experience suggests that it is much easier to isolate changes in CMI by absolute means (eliminating ODS cases from CPC) rather than by more subjective means (hospital specific review, e.g. "Root" DRG changes).

Conceptually, we agree with the Staff that we should consider constraining the charge per admission for ODS cases. When we reviewed the technical aspects of the issue, we identified several concerns that should be discussed further. The charge per admission of ODS cases should increase, by design, for two reasons. As cases currently with a LOS = 2 gradually move to LOS = 1 as a result of treatment advances, they will be excluded from CPC. This will likely increase the charge per admission for ODS cases since the current two day stay cases will have higher acuity than the ODS cases being removed today. In addition, moving two day stay cases to ODS will reduce the remaining CPC rate capacity resulting in system savings, since the two day stay cases will likely fall below the rebased average charge. The same will likely hold true as ODS cases shift to Observation, since the remaining ODS cases are likely to have higher acuity as the lower acuity ODS cases will shift to Observation first. Based on these issues, we should discuss this concept further in a technical capacity before implementing a constraint system.

In addition, there are two existing constraints to consider. First, the HSCRC's existing unit rate price structure ensures that hospitals must comply with unit prices. Second, since by definition these cases are one-day admissions, utilization of ancillary services is unlikely to increase by any measurable amount. Finally, the workgroup should consider the effect that proposed changes to the medical and surgical rate structures will have on the remaining ODS cases and charges.

Excluding ODS cases from the CPC system should be re-evaluated after a multi year period (e.g., three years). At that point, observation services delivered at hospitals will have matured reducing the number of ODS cases. It is also important to point out that unintended consequences may arise from this structure. As previously stated, hospitals improving efficiency may reduce LOS from two or three days to one day. As such, the hospital's rate capacity will be reduced since the case will now be excluded from CPC and treated as a pass through. This potential risk does not outweigh the benefit of rebasing the system and will be addressed if ODS cases are included after some period. The current ODS problem is largely an unintended and unforeseen consequence of the CPC system that was intended to be, and was successful at being, a revenue constraint system. Further discussion and review as the changes are being implemented is needed to prevent unintended consequences in the future.

<u>Recommendation 2: Removing Identified "Cost Savings"</u>

We believe that any true cost savings from Observation use should be identified in the future and applied to future rates. Staff is proposing that an amount of the "rate capacity" associated with ODS cases should be removed from the system and that system savings as a result of this adjustment would be applied to the annual payment update. We understand this to be a "net neutral" payment reduction in the context of the annual payment update. We recommend this issue be discussed as part of the Annual Payment Update workgroup. Historically, the payment workgroup discusses the overall level of funding in the rate system and we believe that the payment workgroup is the appropriate forum for this discussion.

Staff also discussed the possibility of "scaling" this cost savings to address those hospitals that were early adopters of Observation, causing reductions to rate capacity and increased impacts from the CMI governor. As a means to address the early adopters, this idea should be investigated further. Determining the appropriate scaling logic is the critical factor. The hospitals do not believe that a strict average of ODS cases (even by APRDRG/SOI) should be used for this purpose. Staff and the hospitals should perform a detailed investigation of hospital data to isolate hospitals that recently adopted Observation and then determine magnitude of financial impacts under the current system. Consideration may also be given to potential reduction in denials or in RAC exposure.

Recommendation 3: No Payment Reward/Incentive Policy is Required

Staff's February 19th proposal includes a system of rewards and penalties. The proposed system would be based on hospital actual versus hospital expected (state average) percentage of ODS cases, adjusted for patient mix (APRDRG/SOI). The hospitals disagree with Staff that this incentive is either required to achieve the desired reduction in ODS cases, or an appropriate methodology to use..

As noted in Recommendation 1 and concurrently proposed by Staff, removing ODS cases from CPC will be the largest driver of changes in hospital behavior. The guiding principal is to eliminate the reimbursement differences of treating patients in the most appropriate care level. Implementing a reward/penalty system based on averages may erode part of that principal. We strongly disagree that there should be rewards and penalties based on a statewide benchmark, since there are no accepted clinical benchmarks. As mentioned before, determining if any inpatient stay is appropriate is a medical determination and should be a function of Utilization Review, not a formulaic approach. Furthermore, as discussed in the February 19th meeting by both hospitals and payors, market forces provide powerful incentives to change behavior since the hospital would be at risk for the entire payment of a ODS should the case be denied. (See Recommendation 9 below).

In addition to the proposed system of rewards and penalties, we are concerned with the use of any hard "target" of ODS cases as a percentage of total cases, comparing Maryland to the Nation. The Maryland regulatory system is much different than market based system in the rest of the nation, which creates distortions among payment levels by payer classification. Instead, progress toward the original goal of increasing observation

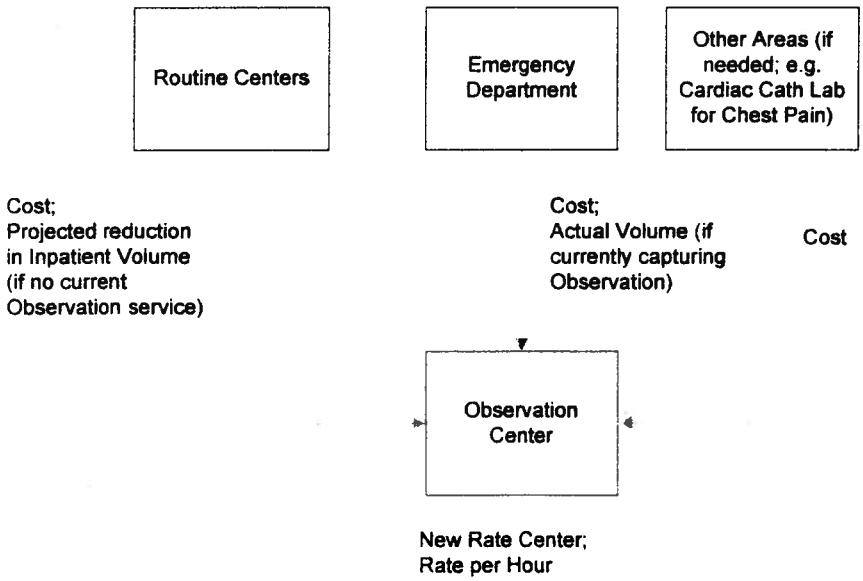
use should be measured. If observation is adopted by a large majority of hospitals, the percentage of ODS cases should be irrelevant. Though the percentage of ODS cases is likely to decline, improving efficiency will shift "two day" stay cases to ODS cases, offsetting movement of ODS cases to Observation. Since the longer term effects of this are unclear, we recommend that Staff review hospital adoption of observation after each year, rather than establish a targeted percentage of ODS cases.

Recommendation 4: Restructure the System to Create a Separate Medical Observation Rate Center

The current structure of the rate system captures Observation charges in the Emergency Department. While the current system is usable, it is not ideal to isolate the costs and charges of Observation. Creating a separate rate center for Observation would permit hospitals to account for costs more appropriately to avoid mixing Emergency Department charges and RVUs. Some hospitals have expressed concern over the propriety of charging patients via EMG charges when they treated in inpatient units. This is particularly appropriate given the recent State budget challenges in the Medicaid program. Medicaid patients use the ED more frequently than non-Medicaid patients. Segregating costs appropriately may reduce any unintended cost increases in the ED under the current rate structure.

Figure 1 below depicts the cost accounting required to create the new observation rate center.

Figure 1:



In Figure 1, costs are allocated to the new Observation center from the appropriate patient care areas. In the case of hospitals currently using Observation, costs, charges and

volume should be moved from the Emergency Department to the new rate center. In some cases, hospitals with Observation may be observing patients in other hospital departments, routine or otherwise. In the event that costs have not been appropriately allocated to the ED, those costs should be reclassified to the new Observation center. There should be no "double counting" of Observation costs that have already been allocated to the ED. Hospitals without Observation should project costs and charges that should be moved from the inpatient routine centers, along with the projected reduction of inpatient days.

The new rate center should be established using an RVU scale. One (1) RVU would equal one hour of observation care provided. Tables 8 and 9 below reflect the mechanics of this rate conversion.

Table 8

Rate Center	Pre Conversion				Post Conversion			
	Volume	Rate	Cost	Charges	Volume	Rate	Cost	Charges
EMG	150,000	$ 40.0	$ 5,100,000	$ 6,000,000	135,000	$ 40.0	$ 4,590,000	$ 5,400,000
MSG	-	-	-	-	-	-	-	-
MOBS	-	-	-	-	10,000	60.0	510,000	600,000
Total			$ 5,100,000	$ 6,000,000			$ 5,100,000	$ 6,000,000

In Table 8, a hospital is currently capturing Observation charges, cost and volume in its ED. 15,000 EMG RVUs are related to Observation, translating to 10,000 hours of observation care (15,000/1.5 RVUs per hour). The associated Observation charges and costs are reclassified to the new Medical Observation rate center (MOBS). No cost is reclassified from MSG as the hospital appropriate accounted for all costs in the ED even though observation patients may have been physically placed on inpatient units.

Table 9

Rate Center	Pre Conversion				Post Conversion			
	Volume	Rate	Cost	Charges	Volume	Rate	Cost	Charges
EMG	-	-	-	-	-	-	-	-
MSG	30,000	1,000.0	25,500,000	30,000,000	27,000	1,000.0	22,950,000	27,000,000
MOBS	-	-	-	-	60,000	50.0	2,550,000	3,000,000
Total			$ 25,500,000	$ 30,000,000			$ 25,500,000	$ 30,000,000

In Table 9, a hospital is not currently capturing Observation charges. As such, it is projecting its observation volume in the new rate center. This example assumes that 3,000 patient days would be moved to MOBS, averaging 20 hours per observation. With no historical experience, charges at the current MSG rate would be moved to MOBS.

Recommendation 5: Restructure the System to Adjust the Same Day Surgery Rate Center

Although this discussion primarily focuses on medical observation cases, surgical observation cases also require consideration. Unlike medical observation cases, active monitoring of the recovery ("observation") of surgical patients is included in the Operating Room (OR) and Same Day Surgery (SDS) rate centers. The current rate structure of the OR and SDS rates do not allow hospitals to "tier" rates based on resource use. In most cases, this arrangement is sufficient, however it lacks flexibility to capture the true costs (and charges) associated with certain outpatient surgery cases.

Reasonable costs to treat surgical cases requiring extended outpatient recovery are comingled with routine service cost. Whether treated as an outpatient surgical patient who recovered for an extended period in a routine bed, or was admitted for a one day stay, certain patients require an extended period of recovery. In the first example, the patient is not admitted but costs associated with recovery aren't fully captured since a portion of the patients monitoring and recovery takes place on an inpatient floor. The OR and SDS rates do not fully capture these costs and it is arguable that the OR and SDS rates should not include these costs. In the second example, the patient is admitted at the risk of denial for medical necessity, although possibly more appropriately capturing the costs required. There is likely little difference in patient care under either example.

In conjunction with revising the CPC methodology and creating a structured Medical Observation service, we recommend:

- The SDS rate be restructured to capture outpatient recovery costs, and;
- The SDS rate be tiered to allow for appropriate and effective charging for outpatient surgical cases

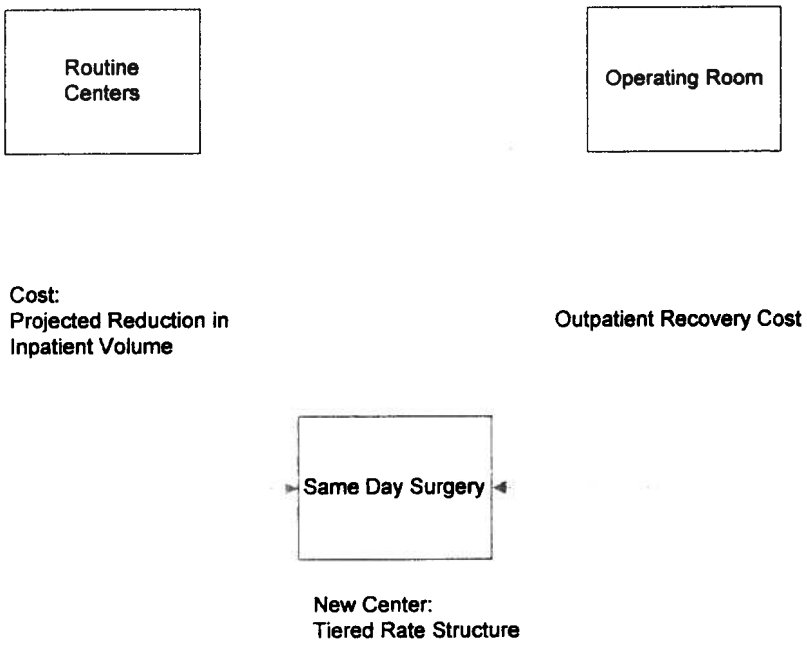
Similar to changes in the Medical Observation service, the SDS rate center would contain costs associated with observing and monitoring patients for a period beyond the normal recovery time. While some of these costs are captured in the OR and SDS rate centers, extended recovery costs are likely included in routine rate centers. Whether an outpatient was recovered on an inpatient unit, or the patient was admitted for a ODS, the costs are similar. A tiered charge structure based on reasonable costs should reduce the number of ODS surgical admissions, and, should reduce the number of denials for medical necessity.

It is important to note that Medicare does not reject claims for the presence of a surgical procedure (T code) with the presence of an observation code (G code). Medicare does not provide the add-on APC payment for observation services associated with surgical cases but it is appropriate to code observation services if recovery exceeds eight hours and a complication arises. The HSCRC's regulatory system is different from Medicare's APC system. Providing appropriate payments to cover reasonable costs is the mandate of the HSCRC's system. As such, additional charges for extended recovery (observation) should be allowable for certain complications. This maintains the integrity

of the OR and SDS rates and will result in the reduction of ODS surgical cases when the charge structures are tiered.

Figure 2 below depicts the cost accounting required to create the new observation rate center.

Figure 2:



In Figure 2, costs are allocated to the SDS rate center from the appropriate patient care areas. Costs for outpatient recovery that are included in the Operating Room should be moved to SDS, leaving only the actual operating room costs and charges in the OR rate center rate. If hospitals are currently capturing extended recovery costs in routine centers, i.e. "observing" the patient on an inpatient unit, and they are reclassifying those costs to OR or SDS, then those costs should either be moved from OR to SDS or left in the SDS rate center.

Table 10

Rate Center	Pre Conversion Volume	Rate	Cost	Charges	Post Conversion Volume	Rate	Cost	Charges
OR	500,000	$ 20.0	$ 8,500,000	$ 10,000,000	500,000	$ 18.0	$ 7,650,000	$ 9,000,000
MSG	30,000	1,000.0	25,500,000	30,000,000	27,000	1,000.0	22,950,000	27,000,000
SDS	**4,000**	**350.0**	**1,190,000**	**1,400,000**	**7,000**	**771.4**	**4,590,000**	**5,400,000**
Total			$ 35,190,000	$ 41,400,000			$ 35,190,000	$ 41,400,000

Table 10 reflects the mechanics of converting costs from inpatient routine centers and OR to the revised SDS Rate Center. This example assumes that 3,000 patient days

related to one day surgical cases would be moved to SDS. In addition, this assumes that 10% of OR cost is related to outpatient surgical recovery which should be moved to SDS. The resulting SDS rate increases to $771.4, however this rate should be tiered in some fashion. Table 11 below reflects the possible mechanics of tiering the revised SDS rate.

Table 11

			Alterantive 1: Per Case		Alternative 2: Per RVU			
Level	Recovery Time (hrs.)	Cases	Rate/Case	Charges	RVU	RVUs	Rate/RVU	Charges
1	0 - 4	1,000	$ 134.33	$ 134,328	2	2,000	$ 67.16	$ 134,328
2	4 - 8	2,000	402.99	805,970	6	12,000	67.16	805,970
3	8 - 12	600	671.64	402,985	10	6,000	67.16	402,985
4	12 - 16	200	940.30	188,060	14	2,800	67.16	188,060
5	16 +	3,200	1,208.96	3,868,657	18	57,600	67.16	3,868,657
Total		7,000	$ 771.43	$ 5,400,000		80,400	$ 67.16	$ 5,400,000

In Table 11, two alternatives are presented to structure the new SDS rate. In this example, the SDS rate is composed of five levels, similar to the HSCRC's EMG structure. In Alternative 1, a tiered per case rate is computed based on the number of cases in each level. In Alternative 2, and RVU structure is created based on RVU's by level. Hospital billing managers should review the proposed structure for feasibility, efficiency and effectiveness.

Recommendation 6: Exclude Observation Cases from CPV for One Year

As discussed above, the proposed CPV structure with separate weights for observation services requires more time to accumulate Observation data. With the expected increase in observation cases, we recommend that observation cases be treated as a "pass through" for a one year period (FY 2011). Since many hospitals will be "converting" to new Observation rates, actual hours of Observation may vary from the initial projection. It is unclear what effect the differences in actual versus projected Observation utilization will have when compared against the change in CPV case mix during the first year. Substantially more data will be included under the CPV, improving the measurement of observation cases under CPV. Additionally, as more patients bypass the emergency department/clinic and are placed directly in observation, the overall case weight for the observation APGs may be lower as emergency department and clinic charges will not be included in those records.

Recommendation 7: Monitoring of Rate Conversion

Similar to other HSCRC rate conversions, there should a be monitoring period to ensure compliance with the conversion so that hospitals receive no more, or no less revenue than appropriate. Given the uncertain nature of hospitals "converting"

admissions to Observation services, many hospitals will forecast their expected use of the new services. In this respect, projected volumes and charges will be moved from routine centers to the new Medical and Surgical Observation centers.

If the conversion effective date is July 1, 2010, FY2011 will be the first year using the new approved rates. FY2012 data will be compared to the FY2011 initial period, with any subsequent adjustments applied to FY2013 to settle FY2011 and FY2012. In this way, hospitals will have a few years of experience data in which to compare their initial conversion.

The hospitals agree that any cost savings resulting from outpatient versus inpatient services should be acknowledged in the system, after two years of experience data. Comparing FY2012 data versus FY2011 data in the hospitals annual filing will allow the HSCRC to assess the true cost impact after almost two full years of converted data. Similar to the previous clinic conversion, any significant variances over or under the initial rate setting should be applied to a future period.

Recommendation 8: July 1, 2010 Effective Date

To align these changes with the HSCRC's rate year, all changes should be incorporated July 1, 2010. As noted above, some adjustments may be required for early adopters. However, hospitals will still be "at risk" from Medicare's RAC program and from commercial payor denials until the system has matured.

Recommendation 9: Denied Cases in the Rate Setting System

Inpatient cases denied as "not medically necessary" ("Denied cases") are cases that were admitted to the hospital, which upon retrospective review were denied as having not been medically necessary for inpatient services. Denied cases include retrospective denials by third party payers or hospital self denials by internal Utilization Review ("UR"). These cases include cases where all inpatient routine charges (room and board, and, admission) were subsequently denied.

From an HSCRC reporting perspective, hospitals have consistently included Denied cases in their HSCRC data, both monthly financial and utilization data, along with quarterly inpatient data abstracts. COMAR 10.37.01.02 requires hospitals to record revenue "at the full established rates regardless of the amounts actually paid to the hospital or on behalf of patients." This requirement correlates to COMAR 10.37.01.03 requiring hospitals to submit Gross Patient Revenues (RSA, RSB, RSC). COMAR 10.37.06.01 requires the collection and submission of (abstract) data along with "the reconciliation of inpatient data between the discharge data and the financial data filed with the Commission." This section further requires that the reconciliation submitted "shall be made in the manner, form, and time frame prescribed by the HSCRC Staff." Finally, Staff's December 17, 2009 memo regarding Inpatient Case-Mix/Financial Data Reconciliation Report, requires the financial and abstract data reconcile within 1%.

Since Denied cases are by definition part of the gross revenues reported by all hospitals, hospitals would not be in compliance with these Commission regulations if they omit these cases from the gross revenues being reported or the data abstract as reported. An exhaustive review of HSCRC documentation by the hospitals reveals no direction to exclude denied cases from the data abstracts or the financial data. Based on all the published regulations and instructions, MHA believes all hospitals in the State were appropriately including these cases in their inpatient data abstracts. We agree with the Staff's verbal confirmation of this finding in the February 19, 2010 workgroup meeting.

Recommendation 1 excludes ODS cases from the system and the large majority of cases denied for medical necessity fall into this category. As reflected in Table 7 above, when ODS cases are excluded from CPC, a denial would result in the loss of the total payment of $2,600, without creating any rate capacity. Hospitals expect to see fewer inpatient Denied Cases when the system appropriately reimburses all cases. No further adjustments to CPC would be required as the majority of Denied Cases in the LOS = 1 category would be removed from CPC. UR incentives in the market provide sufficient barriers to a hospital increasing LOS to receive additional rate capacity for cases with a LOS = 2. When the mechanics of the system are changed prospectively, Denied cases do not need to be excluded from the inpatient abstract and CPC compliance, since only the billed charges are involved, and the Hospital is entirely at risk for the billed charge.

Recommendation 10: The Maryland Waiver Test

We recognize that these proposed system changes will affect the Maryland Waiver Test. We recommend working with Staff to project the potential impacts of these changes on the Maryland's Waiver Cushion. Other considerations include the effect of moving Medicare inpatients to observation outside of Maryland, and the process underway to reexamine the structure of Maryland's existing Waiver Test.

Summary

The issue of ODS cases in the HSCRC's rate setting system is affected by the complex nature of the HSCRC's rate setting methodologies. The hospital field's proposal provides a comprehensive solution to reduce ODS cases and maintains the integrity of the CPC system, while being compliant with the HSCRC mission to assure purchasers of hospital care that the rates in total paid for the care they receive are reasonably related to the costs of that care. The changes required to the CPC system are needed as a result of totally unintended and unforeseen consequences when the original CPC system was adopted. We agree with the Staff regarding much of their proposal – it corrects the problem without creating other unintended consequences, and it maintains the proper incentives the CPC system was designed to create.

Final Recommendations on Continued Financial Support for the Maryland Patient Safety Center

May 5, 2010

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

This is a Final Recommendation.

Final Recommendations on Request for HSCRC Financial Support of Maryland Patient Safety Center in FY 2011

Background

The 2001 General Assembly passed the "Patients' Safety Act of 2001," charging the Maryland Health Care Commission (MHCC), in consultation with the Department of Health and Mental Hygiene (DHMH), with studying the feasibility of developing a system for reducing the number of preventable adverse medical events in Maryland including, a system for reporting such incidences. The MHCC subsequently recommended the establishment of a Maryland Patient Safety Center (MPSC or Center) as one approach to improving patient safety in Maryland.

In 2003, the General Assembly endorsed this concept by including a provision in legislation to allow the MPSC to have medical review committee status, thereby making the proceedings, records, and files of the MPSC confidential and not discoverable or admissible as evidence in any civil action.

The operators of the MPSC were chosen through the State of Maryland's Request for Proposals (RFP) procurement process. At the request of MHCC, the two respondents to the RFP to operate the MPSC, the Maryland Hospital Association (MHA) and the Delmarva Foundation for Medical Care (Delmarva), agreed to collaborate in their efforts. The RFP was subsequently awarded jointly to the two organizations for a three-year period (January 2004 through December 2006). The RFP authorizes two one-year extensions beyond the first three years of the pilot project. MHCC extended the contract for two years ending December 31, 2009. The Center was subsequently re-designated by MHCC as the state's patient safety center for an additional five years – through 2014.

In 2004, the HSCRC adopted recommendations that made it a partner in the initiation of the MPSC by providing seed funding through hospital rates for the first three years of the project (FY 2005-2007). The recommendations provided funding to cover 50% of the reasonable budgeted costs of the Center for each of those fiscal years. The Commission annually has received a briefing and documentation on the progress of the MPSC in meeting its goals as well as an estimate of expected expenditures and revenues for the upcoming fiscal year. Based on these presentations, staff evaluated the reasonableness of the budget items presented and made recommendations to the Commission.

Over the past 6 years, the rates of eight Maryland hospitals were increased by the following amounts, and funds have been transferred on a biannual basis (by October 31 and March 31 of each year):

- FY 2005 - $ 762,500
- FY 2006 - $ 963,100
- FY 2007 - $1,134,980
- FY 2008 - $1,134,110
- FY 2009 - $1,927,927
- FY 2010 - $1,636,325

Last year, as part of its approval for continued financial support of the MPSC, the Commission adopted a recommendation requiring for future years that the percentage of budgeted costs covered through hospital rates should be reduced by at least 5% per year, but in no year shall the funding (on a dollar basis) exceed the amount provided in the previous year. The approved recommendation stated that the percentage decline shall be determine annually based on a continued review of MPSC activities which shall take into account the existence of demonstrable evidence of improved outcomes, efficiency, and cost savings resulting from MPSC's programs, as well as the viability and success of MPSCs strategic fund raising plan. The Commission expressed its belief in the value of the MPSC by continuing to be a minority partner with the Center, and intending to continue to provide a base level of support (potentially 25% of budgeted costs).

Maryland Patient Safety Center Request to Extend HSCRC Funding

On March 23, 2010, the HSCRC received the attached request for continued financial support of the MPSC through rates in FY 2011 (Attachment 1). The MPSC is requesting to continue the 45% HSCRC match into FY 2011. The result would be a reduction in total support from $1,651,275 in FY 2010 to $1,544,594 in FY 2011.

Maryland Patient Safety Center Purpose, Accomplishments, and Outcomes

The purpose of the MPSC is to make Maryland's healthcare the safest state in the nation focusing on the improvement of systems of care, reduction of the occurrences of adverse events, and improvement in the culture of patient safety at Maryland health care facilities. The MPSC's new strategic plan directs concentration on the following 6 areas:

- Measurement of vision success and program impact;
- Patient and family voices at all levels;
- Institutions create and spread excellence;
- Institutions safety culture hardwired;
- Continuity of care initiatives; and
- Demonstrate the value of safety.

Below is a general description of the various initiatives put in place by the MPSC to accomplish the aforementioned goals as well as estimated outcomes and expected savings of each initiative.

1. Adverse Event Information System and Data Analysis

The Center has developed software that it has provided to hospitals free of charge to be used as a fully operational adverse event data collection tool. However, hospitals may report adverse events and near misses by using their existing software. Data collected through the project may be used to benchmark events against other facilities as well as to explore trends and patterns relating to the types of events occurring at hospitals. This knowledge will assist MPSC and Maryland hospitals to develop

standardized best practices in an effort to prevent or reduce the number of adverse events occurring in the future.

2. Patient Safety Education Programming

The MPSC has conducted a series of educational programs designed to train leaders and practitioners in the health care industry and shares strategies to improve patient safety and quality. These programs have focused on the following areas:

- Patient safety tools training including root cause analysis;
- Management development;
- Condition H (Help) Workshops which assist hospitals with initiating and sustaining rapid response teams;
- Process improvement including LEAN workshops and Six Sigma certification;
- TeamSTEPPS Train the trainer programs;
- Sharing information on MedSAFE, hospital information technology, and patient falls; and
- Leadership issues.

These programs, particularly the LEAN and Six Sigma programs are designed to improve efficiency and reduce costs at hospitals and nursing homes. One facility has reported savings of up to $20,000 related to pharmacy inventory reductions and annualized saving of up to $2.2 million due to reduced cases of missing or reordered medications.

3. MEDSAFE Medication Safety Initiative

The MEDSAFE program was initiated by the Maryland Hospital Association has been in existence since 1999. After being moved to the MPSC, the Initiative continues to promote the implementation of safe medication practice at Maryland hospitals. The Safe Medication Practices' Medication Safety Self-Assessment tool is used to survey hospitals and develop customized reports. The survey solicits responses from individuals at hospitals across various hospital departments on more than 200 questions relating to the level of compliance with evidence-based practices aimed at reducing medication errors.

Outcomes: Between 2005 and 2009, Maryland hospitals showed an increase of 9.2% in overall median score for medication safety on the annual MEDSAFE survey, most notably in communication related to medications (23% improvement) and staff competency/education (23% improvement).

4. Patient Safety Collaborative Program

The MPSC has initiated a series of Collaboratives focused on the implementation and development of safe practices and culture change in high hazard settings. The Center's collaborative workshops bring together Maryland providers and national experts to focus on safety culture and specific process improvements, with the goal of

implementing measurable and sustained improvement. The following Collaborative programs have been implemented by the Center:

ICU Safety and Culture Collaborative

The ICU Collaborative, which ran from 2005 to 2007, included teams from thirty-eight of Maryland hospitals' intensive care units. The program was aimed at eliminating preventable death and illness associated with healthcare-associated bloodstream infections (BSI) and pneumonia in patients on ventilators.

Outcomes: Since this was the first Collaborative implemented by the MPSC, data is available to estimate the benefits of the project:

- ICUs at 5 hospitals met the challenge of zero ventilator-associated pneumonia episodes during its data collection period;
- Overall, ventilator-associated pneumonia was reduced by 20% in participating ICUs;
- An estimated 755 ventilator-associated pneumonia infections were prevented – based on statistical modeling; it is estimated that about 75 lives have been saved, reducing hospital costs by about $35 million;
- Ten hospitals achieved zero catheter-associated BSI episodes during the data collection period;
- Catheter-associated BSI have been reduced by 36%;
- An estimated 358 BSI infections have been avoided – based on statistical modeling, it is estimated that about 62 lives have been saved thereby reducing hospital costs by about $5 million;
- In total, an estimated 1, 113 ventilator associated pneumonia or catheter-related blood stream infections have been prevented, saving approximately 140 lives, and resulting in about $40 million in cost savings at hospitals each year.

Emergency Department Collaborative

The Emergency Department Collaborative began in 2006 and continued through 2007. This Collaborative was conducted with the intent of improving emergency room flow and getting time-sensitive treatments to patients quickly. Twenty-nine multi-disciplinary teams representing over half of the hospitals in the State worked towards achieving a broad spectrum of ambitious goals geared towards ensuring that the sickest ED patients get the care they need quickly, and that all patients are cared for in a timely manner with the smallest possible exposure to preventable healthcare associated harm. As a starting point, the collaborative teams implemented a series of change strategies that have been recommended in the scientific literature or reported as successful by other hospitals.

A Handoff and Transition Network has grown out of the discussions of the ED Collaborative.

Outcomes: Based on a sample of 748,237 patients seen during a one-year period at 15 participating hospitals, median length of stay was reduced by 30 minutes saving

about 374,000 hours. The median number of visits per treatment space has increased by 90 visits. In addition, ambulance diversions were reduced at many participating hospitals - 24% hospitals reduced yellow alert times, and 48% reduced red alert time. It is estimated that 189 additional pneumonia patients were given an antibiotic during the appropriate time frame. This was estimated to save $130,000 in hospital costs, or, on average, $688 per patient.

Perinatal Collaborative

The Perinatal Collaborative began in September 2006 and included participation from 28 labor and delivery units at Maryland hospitals. The mission of the Collaborative is to create perinatal units that deliver care safely and reliably with zero preventable adverse outcomes. The goal is to reduce infant harm through the implementation and integration of systems improvements and team behaviors into maternal-fetal care using various proven methods.

Outcomes:

- Zero neonatal or maternal deaths at participate facilities in Year 2 of the Collaborative;
- Admission to the NICU (for >2500 grams, >37 weeks gestational age for more than 24 hours) declined by 23% from the 2006 base period despite an increasing number of births over the data period; therefore, 78 more mothers when home with their babies resulting in an estimated reduction in the cost of care by $185,000;
- Maternal returns to the OR declined by 10%; and
- Elective inductions prior to 39 weeks have been reduced by 17% and Cesarean Sections by 23%.

5. New Projects

Patient Falls

Data collected by MPSC over the past two years indicate that patient falls are the second most frequently occurring, event after medication errors; however, patient falls rank first in terms of severity. The MPSC intends to reduce the number of patient injuries resulting from falls by developing standardized protocols using best practices and testing them over time.

Currently 28 hospitals, 42 long term care facilities, and 13 home health agencies are participating in the falls prevention program. Data from existing participants for the 6 months of the program show a declining trend in the rate of falls with injury among the pilot group.

Expected Outcomes: According to the Centers for Disease Control and Prevention (CDC), reducing the rate of falls in Maryland by 5% could save $1.5 million annually.

Maryland Hand Hygiene Collaborative

Hand Hygiene is a critical factor in preventing the costly spread of potentially devastating infections. The Maryland Hospital Hand Hygiene Collaborative started in November 2009 and currently 96% of hospitals have registered for the program. The goal is to reduce infections, improve care, and reduce waste which can lead to savings throughout the healthcare system. The program intends to achieve a hand hygiene compliance rate of at least 90% or all units/participants. The Collaborative is expected to continue until February 2011. The Department of Health and Mental Hygiene through a American Recovery and Reinvestment Act of 2009 (ARRA) request has provided $100,000 to support this program.

Expected Outcomes: CDC estimates that hand hygiene adherence rates nationally are at about 40%. To achieve 90% compliance will reduce the number of hospital acquired infections at Maryland hospitals and save costs through improved outcomes, and reduced length of stay and acuity. Participants will be providing data to determine achievement of goals and potential cost savings.

Recognition

- In September of 2005, the Maryland Patient Safety Center was honored with the 2005 John M. Eisenberg Patient Safety and Quality Award for national/regional innovation in patient safety.
- In 2009, the Center was re-designated by MHCC as the state's patient safety center – continuing its relationship with the State. In addition, the Center is now listed as a federal Patient Safety Organization (PSO).
- In a recent survey, hospital leaders identified MPSC as the most effective and important healthcare initiative underway in the State.
- The Governor's Health Quality and Cost Council selected the MPSC to lead the state's hand hygiene campaign.

Funding Raising Initiative

In FY 2010, MPSC implemented a strategic funding initiative to attempt to diversify it sources of support over time. MPSC and its partners secured program-specific funding in the following amounts:

- $100,000 from DHMH (through American Recovery and Reinvestment Act funding) for the Hand Hygiene Collaborative;
- $250,000 from DHMH for continued support of the Maryland Perinatal Learning Network; and
- $215,000 from CareFirst in continued support of the Neonatal Collaborative.

In March 2010, the Board of MPSC approved a contract for assistance in managing a comprehensive fundraising campaign.

Findings

The All-Payer System has provided funding support for the Maryland Patient Safety Center during its initial six years with the expectation that there would be both short-term and long-term reductions in hospital costs – particularly as a result of reduced mortality rates, lengths of stays, patient acuity, and malpractice insurance costs. The activities of the MPSC have now begun to result in discernable positive outcomes for patients, which have been demonstrated to achieve costs savings at Maryland hospitals. A goal of the MPSC should be to ensure that such outcomes and related cost savings are sustained after the collaborative networks and educational programs have concluded.

HSCRC staff believes there to be potential for further reductions in hospital costs through continued education and collaborative networking. Further, there is value in allowing the MPSC to continue its work as one component of a broad patient safety initiative to improve quality of care by reducing adverse health events at Maryland hospitals and nursing homes. In order to do so, the Center requires continued financial support and is requesting that the All-Payer system continue to fund a portion of its budgeted expenditures for FY 2011 and into the future.

Staff believes that this endeavor continues to be consistent with the goals of the HSCRC under its quality initiatives. Commission staff is confident that the MPSC will continue to bring Maryland closer to achieving the health care quality goals expressed by both the MHCC and the HSCRC by reducing medical errors and improving clinical and administrative efficiency. The research and better practices that result from the operation of the MPSC will likely assist the Commission, as it continues to consider criteria, measures, and benchmarks for the HSCRC Quality-based Reimbursement Initiative. These initiatives together provide a unique opportunity to improve both health care outcomes and, at the same time, reduce costs in the health care system.

While staff is encouraged that MPSC has begun a strategic fund raising plan to ensure financial sustainability into the future, it is disheartened by the lack of progress in accessing other private and public funding prior to FY 2011. Last year the Commission recognized that fund raising would be challenging in FY 2010, but believes that a strategic funding plan should have put into place much sooner. Year after year, in its recommendations the Commission clearly stated that the MPSC should aggressively seek other funding resources to support the Center into the future.

Staff Recommendations

Therefore, after reviewing the accomplishments and financing of the MPSC, staff believes that the All-Payer System should continue to be a partner in the funding of the MPSC in FY 2011 and into the future. Specifically, staff makes the following recommendations:

1. **In FY 2011, funding should be provided through hospital rates to cover 45% of budget costs of the Center (There is no expected carry over from FY 2010). However, 5% of the 45% shall be contingent on the submission of a fundraising plan and, to the satisfaction of staff, evidence**

that the plan will begin to bear a reasonable amount of revenue for the MPSC in FY 2011 and FY 2012. Therefore, staff recommends providing funding through the All-Payer System in the amount of $1, 544,594. Of that amount, $171,622 shall be held in abeyance until the MPSC demonstrates that a viable fundraising plan is in place.

2. **For future years, the percentage of budgeted costs covered through hospital rates should be reduced by at least 5% per year, but in no year shall the funding (on a dollar basis) exceed the amount provided in the previous year. The percentage decline shall be determine annually based on a continued review of MPSC activities which shall take into account the existence of demonstrable evidence of improved outcomes, efficiency, and cost savings resulting from MPSC's programs, as well as the viability and success of MPSCs strategic fund raising plan.**

3. **Since staff believes that there is value in the HSCRC continuing to be a minority partner with the MPSC, it is the intent that funding decline over time but to maintain a reasonable base level of support (potentially 25% of budgeted costs). The pace at which such a floor should be reached shall be determined based on annual reviews of MPSC activities, taking into account the existence of demonstrable evidence of improved outcomes, efficiency, and cost savings resulting from MPSC's programs, as well as the viability and success of MPSCs strategic fund raising plan.**

4. **Staff should communicate with the Agency for Healthcare Research and Quality (AHRQ) and other relevant organizations to learn more about how to best evaluate the value and efficacy of patient safety program options to the citizens of Maryland. In doing so, staff should focus on those programs that have broad-based and measurable impacts.**

5. **The MPSC should update the Commission periodically on health care outcomes and expected savings resulting from the programs sponsored by the Center. As collaborative networks and educational programs expire, the MPSC should track the sustainability of any positive outcomes achieved as a result of its work and determine whether other outcomes emerge over time.**

6. **The MPSC should aggressively pursue other sources of revenue, including from other provider groups that benefit from the programs of the Center, to help support the Center into the future.**

7. **In order for the MPSC to budget for FY 2011, staff recommends that the 60-day comment rule be waived so that these recommendations may be considered for final approval during the May Commission meeting.**

Maryland Patient Safety Center
FY2011 Program Plan & Budget

FY2011 MPSC Program Plan & Budget: Building on Success & Enhancing Leadership in Patient Safety

Presented to

HSCRC
Health Services Cost Review Commission

March 2010

MARYLAND Patient Safety CENTER

A collaboration between the Maryland Hospital Association and Delmarva Foundation for Medical Care

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Table of Contents

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Executive Summary

As the Maryland Patient Safety Center (MPSC) enters its sixth year of innovative programming, issues at all levels underscore the need for comprehensive, effective efforts to improve patient safety. Each of us has been touched by somebody who has experienced a medical error. In fact, medical errors result in 98,000 in-hospital deaths each year, more than deaths in the US from car accidents, breast cancer or AIDS. By some estimates, 1 in 4 adults over 50 experiences a major medical error. The cost implications are staggering – up to $29 billion a year.

Maryland is well positioned as a recognized leader in patient safety to address and improve these measures. Hospitals, long term care providers, and home health agencies in the Mid-Atlantic region continue to join MPSC's programs and initiatives aimed at improving care for all. With such focused commitment, MPSC and its partners are poised to expand our efforts to make medical errors a thing of the past.

Some of the key highlights from this past year include:

- ✓ Bringing innovation statewide through our Hand Hygiene and SAFE from FALLS programs
- ✓ Engaging patients and families in safety by expanding access to Condition Help teams
- ✓ Learning from experts through the record-breaking attendance at the MPSC Annual Conference, and talks from leaders such as Paul O'Neill
- ✓ Steady improvement on medication practices as evidenced by MPSC's annual survey and conference on improving medication safety
- ✓ Communicating to improve safety through our Patient Safety Officers Forum, quarterly newsletter, and enhanced Website

MPSC offers the most diverse, comprehensive programming of any patient safety center in the nation

*"The Maryland Patient Safety Center is **transforming healthcare** organizations across the state."*

-Tina Gionet, RN, MS
Patient Safety Officer
Sinai Hospital

Regarding the Maryland Hospital Hand Hygiene Collaborative:

*"When community hospitals and public agencies work collaboratively, **great things can happen**."*

-Secretary John M Colmers
Maryland Department of Health and Mental Hygiene

Regarding the MPSC Perinatal & Neonatal Collaboratives:

*"Really, the State of Maryland has done **something that few, if any, other states have done** – this is worth acknowledging."*

- Ann Burke, MD
Holy Cross Hospital

MPSC, providers, and the state have developed a strong foundation on which to grow and further ensure patient safety in our communities. With this Fiscal Year 2011 Program Plan & Budget, MPSC requests a continued commitment to and investment in patient safety on the part of the Health Services Cost Review Commission (HSCRC).

> *"These programs are great evidence that teamwork to solve problems and **save patient lives** really works."*
>
> - Conference Attendee
> MPSC Annual Conference
> April 2009

MPSC's strategic fundraising initiative, entitled the *Keeping Patients Safe Campaign*, aims to develop diversified sources of support to further expand MPSC's reach and success. In FY2010, MPSC and partners were successful in securing program-specific funding in the following amounts:

- $100,000 in support of the Maryland Hospital Hand Hygiene Collaborative from the Maryland Department of Health & Human Services (DHMH) through an American Recovery and Reinvestment Act of 2009 (ARRA) stimulus request.
- $250,000 from DHMH for continued support of the Maryland Perinatal Learning Network.
- $215,000 from CareFirst BlueCross BlueShield in continued support of the Maryland Neonatal Collaborative as it transitions into a Learning Network.

MPSC, participating facilities, and partners are proud to report our notable results and progress, highlights of which are summarized in the table below.

MPSC - Key Recent Results

Participation

100% of Maryland hospitals participate in MPSC events and programs, and an increasing number of long term care, home health, and other participants join MPSC's initiatives. More than 1400 providers and leaders participated in MPSC's 6th Annual Conference on March 19, 2010.

Saving Lives & Improving Quality in Labor & Delivery

Program data from the Perinatal Learning Network continue to show improved quality of care for mothers and babies in Year Two, including:

- Zero neonatal or maternal deaths in Year Two.
- 22% decrease in maternal ICU admissions, and returns to the OR/L&D declined by 10%.
- NICU admissions declined by 23% from the 2006 baseline despite increasing birth rates in Level 3 NICUs. This means 78 more moms went home with their babies in the past year than in the baseline period.
- 17% reduction in elective inductions and 23% reduction in scheduled Cesarean Sections prior to 39 weeks, a trend associated with reduced risks.

Cost Savings

- MPSC's Lean and Six Sigma training has focused on cost savings and efficiencies. One facility reports savings of up to $20,000 related to pharmacy inventory reduction and annualized savings of up to $2.2 million due to reduced cases of missing and reordered medications.
- Reductions in NICU admissions and reduced length of stay among MPSC's Perinatal Learning Network participants resulted in an estimated $185,000 in cost savings in Year 1 (2008-2009), with similar, additional savings anticipated for Year 2 (2009 -2010) based on continued reductions in NICU admissions.

Cost Savings continued

- MPSC is monitoring cost savings from the SAFE from FALLS program. In addition to avoiding injury and suffering, falls result in costly complications for the patients. Examining hospitals alone, MPSC's targeted annual 5% reduction in the rate of falls could save an estimated $1.5 million annually upon full rollout of the program. With six months of data, acute care facilities participating in the statewide SAFE from FALLS rollout are reporting lower rates of falls with injury than rates reported among the pilot group. MPSC will continue to monitor the data over time to establish a trend and cost savings and as we recruit additional facilities.

Improved Processes

MPSC has facilitated Lean events in two hospitals. In addition to the cost savings noted above, they have resulted in significant process and patient safety improvement in the two participating facilities, including:

- 33% reduction in turnaround time for medication orders
- 31% reduction in the time to admit a patient from the ED to an inpatient unit

Maryland hospital mortality improvement in national studies

Maryland has demonstrated landmark improvement in hospital mortality from 2005 to 2008, key years in which MPSC initiated its efforts.

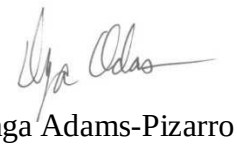
- Maryland has among the most improved in mortality rates in the nation (16.5% improvement from 2005-2007)[i] and 15.7% improvement in critical care mortality from 2006-2008[ii].
- Maryland ranks second for states with the highest percentage of hospitals that have achieved distinction in clinical excellence, with 48% of hospitals in that category[iii].

Awards & Distinctions

- In 2009, MPSC staff and partners were highlighted at the National Patient Safety Foundation Annual Conference, the March of Dimes Annual Conference, and the Institute for Healthcare Improvement Annual Conference.
- MPSC was selected by the Governor's Health Quality & Cost Council to lead its cornerstone activity on reducing healthcare associated infections through a hand washing campaign.
- MPSC was honored with the 2005 John M. Eisenberg Patient Safety and Quality Award.
- Hospital leaders endorse the Center, and, in a recent survey, identified MPSC as the most effective and important healthcare initiative underway in the state.

The enclosed plan includes strategic programming that works across care settings, measures improvement, and retains support for successful programs. A budget follows at the end of the document. Additional information related to specific programs is available upon request.

Thank you for your willingness to review MPSC's progress to date and plans for the future. We look forward to a continued partnership in these efforts with the HSCRC.



Inga Adams-Pizarro
Director, Operations & Development

Maryland Patient Safety Center Overview

This report provides an overview of the Maryland Patient Safety Center's (MPSC) achievements, describes specific programs and approaches, and summarizes the strategic next steps that are creating a sustainable infrastructure for patient safety improvement in Maryland.

MPSC embarks on a landmark year in programming and reach for fiscal year 2011 (FY2011, July 2010 – June 2011). Stakeholders across the state and region are reaching out to MPSC for leadership and guidance on patient safety and quality issues. MPSC's innovative approaches are in alignment with our mission and Strategic Plan, which calls for a focus on:

- Measurement of Success & Program Impact
- Patient & Family Voices at All Levels
- Institutions Create & Spread Excellence
- Institutions' Safety Culture Hardwired
- Continuity of Care Initiatives
- Demonstrate the Value of Safety

MPSC Mission: Making Maryland's Healthcare the Safest in the Nation

- Innovative programs with high uptake among healthcare providers
- Convener of local and national leaders to improve the quality of healthcare
- Data-driven study of adverse events to set priorities and enable safety
- Education programs provide a foundation of skills and knowledge
- Clinical change in priority areas
- Focus on cross-setting improvement

These focus areas provide an evolutionary view of how safety is grown in the healthcare system over time. Change happens on the ground, institution by institution. Initial pockets of excellence create a beachhead from which an institution's committed leadership can spread safety throughout the institution, then across to other organizations. The MPSC is creating and supporting that peer learning system in which institutions can learn and work together to make safety a standard operating procedure.

Multiple high-profile programs have been launched in the past year, including the SAFE from FALLS Program and the Maryland Hospital Hand Hygiene Collaborative, initiated in partnership with the Governor's Health Quality & Cost Council. All have demonstrated strong support of and need for the cooperative and regionally-oriented programs that MPSC uniquely offers.

MPSC and its partners seek continued support of its core operations and programs**.** This includes amplified efforts to formally enroll healthcare providers across the continuum of care in MPSC programs and targeted measurement tracking. We believe that the six strategic areas provide the cornerstone for continued engagement in and success of MPSC programs.

The following provides some highlights from MPSC's activities and programs that describe participation, improvements, projected cost savings, and local and national recognition.

Background

In 2008 the Center completed a strategic reorganization, becoming an incorporated organization with the Maryland Hospital Association and the Delmarva Foundation continuing to act as primary members of the Center. A voluntary Board of Directors participates in setting a strategic agenda for MPSC and provides fiduciary oversight of the Center's direction and budget.

Several achievements underpin the Center's ability to support Maryland's relentless quest to provide effective, safe and efficient care for our citizens:

- The Maryland Governor's Health Quality & Cost Council recognized MPSC's role as a leader in improving patient safety via involvement on the Council and its initiatives
- The Maryland Health Care Commission re-designated the Center for an additional five years, through 2014
- The Internal Revenue Service granted the Maryland Patient Safety Center status as a tax-exempt 501(c)(3) organization
- MPSC became listed as a Federal Patient Safety Organization
- MPSC receives local and national recognition for its model and programs

Participation & Support

MPSC's outreach to long term care associations, national campaigns and organizations, consumer organizations, and others, in addition to partnership with hospitals and Delmarva, creates a robust base of support for Center and state initiatives. In fact, **100% of Maryland hospitals** participate in MPSC events and programs, and an increasing number of long term care, home health, and other care settings are enrolling.

> *"You know you are not alone in your challenges. We all appreciate the opportunity to learn and share with each other."*
>
> -Karen Twigg, BSN, RN, CMCN
> Director of Risk Management & Quality Improvement
> Chester River Hospital Center

Current Programs:

- Perinatal Learning Network: Twenty-nine hospitals, including **28 (85%)** of the 33 hospitals in Maryland offering obstetrical services, are involved, up from 27 last year.
- Neonatal Collaborative: Includes **28 hospitals** teams from across the region.
- SAFE from FALLS Initiative: Among MPSC's first large-scale programs to include long-term care (LTC) and home health participants, this program includes **28 hospitals, 42 LTC facilities and 13 home health agencies**, and plans to expand in the coming year.
- Hand Hygiene: This newly launched program involves **95% of Maryland hospitals**.

Sample Past Programs:

- ED Collaborative: Teams from 61% (28 out of 46) of Emergency Departments in Maryland representing nearly **65% (1,076 out of 1,682) of the state's emergency department treatment spaces.**

- ICU Collaborative: Teams from 83% (38 out of 46) of Maryland hospitals representing nearly 90% **(799 out of 893) of the state's intensive care unit beds.**

In addition to enrollment in formal programs, more than **12,000 hospital and long-term care providers** have been trained in safety practices and/or involved in targeted improvement programs. MPSC also engages facility **Patient Safety Officers** in bimonthly focused meetings to discuss and address patient safety topics of broad interest.

Communication to Improve Patient Safety: Maryland Patient Safety Officers Bimonthly Forum

Improvement

In concert with the MPSC Board's Measurement Committee, MPSC is in the process of designing a comprehensive reporting strategy outlining achievements by program and including patient safety data available in the public domain. This measurement package is planned to be completed in the current fiscal year ending June 2010, and MPSC will be pleased to provide that report to the Commission when it is complete.

Maryland has shown landmark improvement in hospital mortality from 2005 to 2007, key years in which MPSC initiated its efforts. In a recent national survey of hospital mortality, Maryland had the second lowest risk-adjusted mortality rate. It is among the most improved in mortality rates in the nation (16.5% improvement from 2005-2007)[iv] and saw 15.7% improvement in critical care mortality from 2006-2008[v].

"Patient safety is achievable!"

- Conference Attendee
MPSC Annual Conference
April 2009

MPSC programs continue to show remarkable results. Highlights from current and past programs include:

- **Improved outcomes and processes**, including reductions in ventilator associated pneumonia and catheter-related blood stream infections during the Intensive Care Unit Collaborative, resulting in an estimated 1,113 infections prevented, 140 lives saved, and $40,775,070 avoided hospital costs.

- **Program data from the Perinatal Learning Network show improved quality of care for mothers and babies:**
  - **Zero neonatal or maternal deaths** in Year Two.
  - **22% decrease** in maternal admissions to the ICU.
  - NICU admissions (for >2500 grams, >37 weeks gestational age for more than 24 hrs) declined by **23%** from the 2006 baseline despite increasing birth rates. This means **78 more moms went home with their babies** in the past year than in the baseline period.
  - Returns to the OR/L&D **declined by 10%.**
  - Hospitals are implementing policies to reduce elective inductions prior to 39 weeks gestational age, resulting in a **17% reduction in elective inductions and 23% reduction in scheduled Cesarean Sections** prior to 39 weeks, a trend associated with **reduced complications**.
- Pilot facilities report a **decreasing trend of falls with injury** among long term care (LTC) facilities through the MPSC SAFE from FALLS program. We are monitoring this trend, and intend to study the potentially considerable cost savings associated with reductions in falls with injury.
- From 2005 to 2009, Maryland hospitals showed an increase of 9.2% in the overall median score for medication safety on the annual MEDSAFE survey, most notably in communication related to medications (+23%) and staff competency/education (+23%). The results were published in the October 2009 edition of *Quality & Safety in Healthcare*, a peer-reviewed journal.
- Emergency Department Collaborative data reveal that during the course of the program **189 additional pneumonia patients** were given antibiotic on-time, resulting in an estimated **$130,032 in hospital costs avoided.**

MPSC's Impact:

- More moms going home with their babies due to fewer admissions to the NICU
- Decrease in elective induction and C-sections before 39 weeks
- Decreasing trend of injury related to falls among LTC pilot participants
- Improved medication safety scores on the annual MEDSAFE survey
- 33% reduced turnaround time for medication orders in one facility.
- 31% improvement in ED time to inpatient admission in one facility.

MPSC has observed a strong willingness among participants to report data for improvement. For example, Neonatal Collaborative participants gathered baseline measures, with follow-up measurement underway. Hand Hygiene Collaborative participants are reporting their first months of hand hygiene observation data, with 75% of reporting data for January 2010.

Projected Savings

- Reductions in NICU admissions and reduced length of stay among MPSC's Perinatal Learning Network participants resulted in an estimated $185,000 in cost savings in Year 1 (2008-2009), with similar, additional savings anticipated for Year 2 (2009 -2010) based on continued reductions in NICU admissions.
- MPSC's Lean and Six Sigma training has focused on cost savings and efficiencies related to medication safety and emergency department processes. One facility reports savings of up to $20,000 related to pharmacy inventory reduction, 33% reduction in turnaround time for

medication orders, and annualized savings of up to $2.2 million due to reduced cases of missing and reordered medications. Analysis from a second site that targeted emergency department (ED) efficiencies is underway, but has already shown to decrease the time to admit a patient from the ED to an inpatient unit from 360 minutes to 250 minutes (-31%).

- MPSC is monitoring cost savings from the SAFE from FALLS program. In addition to avoiding injury and suffering, falls result in costly complications for the patients. Examining hospitals alone, MPSC's targeted annual 5% reduction in the rate of falls could save an estimated $1.5 million annually upon full rollout of the program. With six months of data, acute care facilities participating in the statewide SAFE from FALLS rollout are reporting lower rates of falls with injury than rates reported among the pilot group. MPSC will continue to monitor the data over time to establish a trend and cost savings and as we recruit additional facilities.

Recognition

MPSC, its partners, and programs have garnered significant recognition and leadership opportunities in the past year. These include but are not limited to the following examples:

- Maryland's Perinatal Learning Network was highlighted at the Institute for Healthcare Improvement's Annual Conference in December 2009.
- Maryland hospital leaders endorse the Center, and, in a recent survey, identified MPSC as the most effective and important healthcare initiative underway in the state.
- MPSC is the recognized national leader in State and regional patient safety efforts. MPSC continues to offer the most comprehensive set of innovative programs and success of any state patient safety center in the country.
- The Maryland Health Care Commission re-designated MPSC as the state's patient safety center for an additional five years, through 2014.
- MPSC was listed as a federal Patient Safety Organization (PSO), and was selected by the Agency for Research and Quality to be highlighted as a model PSO at the National Patient Safety Foundation Conference in May 2009.
- The Maryland Patient Safety Center was honored with the 2005 John M. Eisenberg Patient Safety and Quality Award for national/regional innovation in patient safety. The award recognizes the achievement of individuals and organizations that have made an important contribution to patient safety and health care quality in research or system innovation.
- MPSC representatives serve on regional panels and initiatives, linking MPSC's with groups including the Governor's Health Care Quality & Cost Council, the Delmarva Patient Safety Community of Practice, the MHCC Hospital Performance Evaluation Guide Advisory Committee, and the MHCC Committee on Healthcare-Associated Infections.

MPSC's Executive Director launches the Maryland Hospital Hand Hygiene Collaborative with Lt. Governor Brown, Secretary Colmers, the Maryland Hospital Association, and partners with over 200 participants in attendance.

Publications & Communication

Raising awareness about MPSC's programs and patient safety issues continues to be a focus. In the past year, the Center:

- Launched the *Keeping Patients Safe* newsletter;
- Issued a series of reports and studies, including two published in healthcare journals;
- Distributed communication packets to healthcare providers;
- Offered a refreshed Website; and
- Has been highlighted in the local and national media.

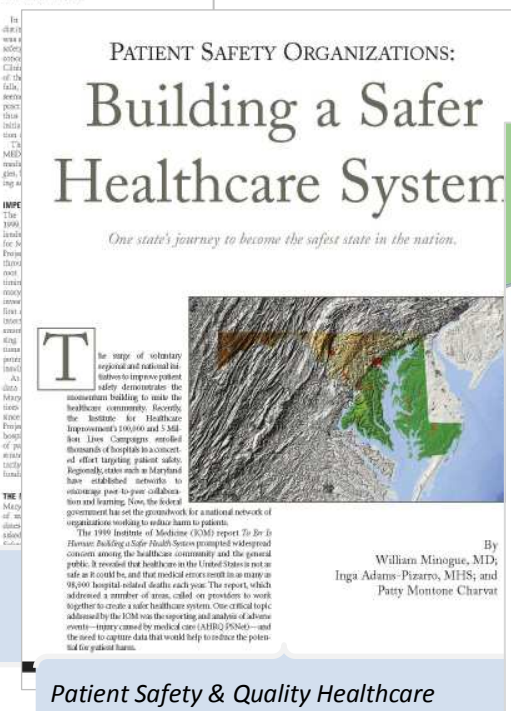

Error management

Enhancing medication use safety: benefits of learning from your peers

V A Kazandjian,[1] S Ogunbo,[2] K G Wicker,[3] A J Vaida,[4] F Pipesh[5]

ABSTRACT

Quality & Safety in Health Care, October 2009

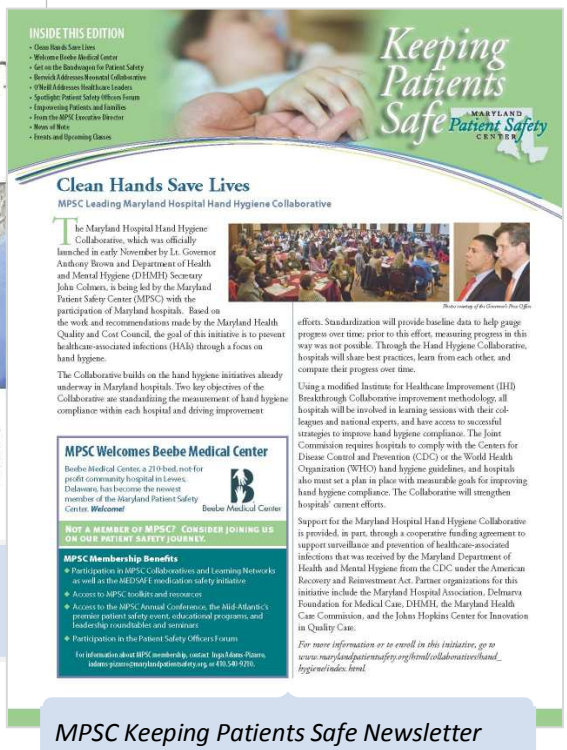

PATIENT SAFETY ORGANIZATIONS:

Building a Safer Healthcare System

One state's journey to become the safest state in the nation.

By William Minogue, MD; Inga Adams-Pizarro, MHS; and Patty Montone Charvat

Patient Safety & Quality Healthcare May/June 2009


INSIDE THIS EDITION

Keeping Patients Safe

MARYLAND Patient Safety CENTER

Clean Hands Save Lives

MPSC Leading Maryland Hospital Hand Hygiene Collaborative

MPSC Welcomes Beebe Medical Center

NOT A MEMBER OF MPSC? CONSIDER JOINING US ON OUR PATIENT SAFETY JOURNEY.

MPSC Membership Benefits

MPSC Keeping Patients Safe Newsletter January 2010


Keeping Patients Safe

Maryland Patient Safety Center Releases Two Reports

June 21, 2009

Paul O'Neill addresses Maryland Healthcare Leaders

Maryland Patient Safety Center Releases "Engaging Boards in Patient Safety"

October 2009

Sample MPSC Issue Briefs on topics including leadership, safety culture, and medication safety

FY2011 Program Details

MPSC and its partners, including the Delmarva Foundation and the Maryland Hospital Association, design and carry out a series of innovative and influential programs that are helping meet the mission of making Maryland's healthcare the safest in the nation. MPSC will continue to add opportunities for long-term care and home health agency participation in MSPC programs.

> *"You cannot talk patient safety unless you talk continuum of care."*
>
> -Jon Shematek, MD
> CMO, CareFirst BlueCross BlueShield, MPSC Board Member

The following are the essential programs planned to be sustained in FY2011.

MPSC Programming – FY2011
Collaboratives & Learning Networks
• SAFE from FALLS
• Perinatal Learning Network
• Neonatal Learning Network
• Maryland Hospital Hand Hygiene Collaborative
• TeamSTEPPS™ Learning Network
Educational Programs
• Process Improvement Programs
• Professional Development Programs
• Patient Safety Tools Training
• MPSC 7th Annual Conference
Research Programs
• Adverse Event Reporting Tool
• MEDSAFE Survey & Annual Conference
• State of the State Measurement Plan
Other Special Projects
• MPSC Patient Safety Officers Forum
• MPSC Annual Leadership Breakfast
• Get on the Bandwagon for Patient Safety Initiative
Core Administration
• Core Staffing & Board of Directors Support
• Program Oversight & Design
• *Keeping Patients Safe* Fundraising Campaign

This document also includes a summary of the Boards on Board and Condition H programs that are concluding in FY2010.

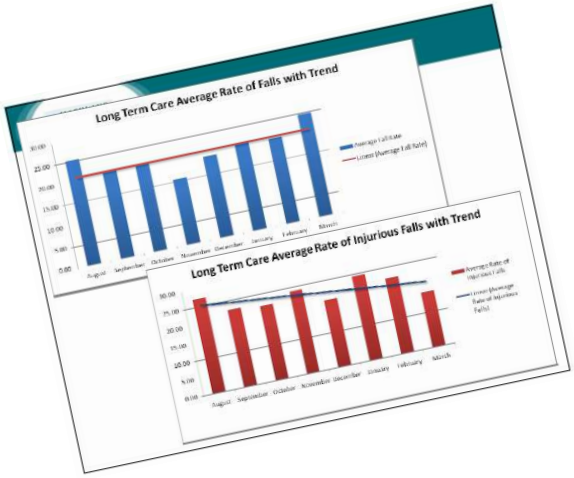
SAFE from FALLS

MPSC launched the statewide SAFE from FALLS program in 2009, opening the program to hospitals, nursing homes, and home health organizations. The launch was based on a pilot study initiated in October 2008. MPSC's SAFE from FALLS initiative aims to reduce the prevalence of, and the severity of injury resulting from, falls in all settings, while contributing significantly to the regional and national knowledge base on this critical topic. To date, this program includes 28 hospitals, 42 LTC facilities and 13 home health agencies. FY2011 program plans are to:

- Expand participation to more organizations;
- Offer regular calls and webinars;
- Evaluate falls in outpatient areas as a focus study;
- Provide detailed reports and analysis to participants;
- Distribute a quarterly Falls newsletter; and
- Offer one face to face meeting.

Injuries from falls can lead to significant morbidity and mortality. Data submitted to the MPSC Adverse Event Reporting system reveals that falls are among the predominant patient safety issues for patients and facilities. In addition, the Maryland Office of Health Care Quality has found that patient falls make up the greatest proportion of reported adverse events that result in serious injury or death in hospitals. The Centers for Disease Control and Prevention (CDC) reports that nearly one-third of U.S. adults ages 65 and older fall each year (CDC, 2008).

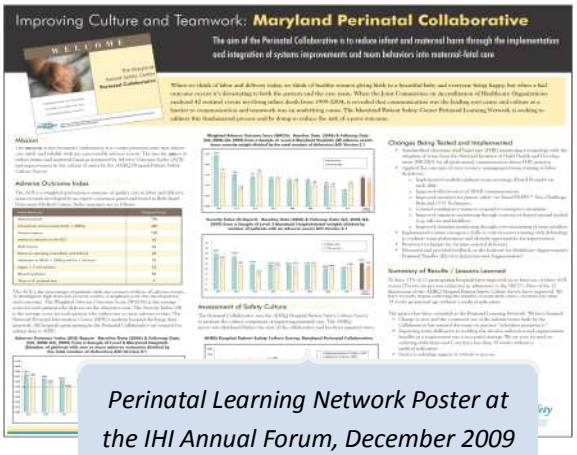
Data from current year participants are being assessed, but to date there has been a declining trend in the rate of falls with injury among the pilot group (sample of pilot data from the long term care group appear below). This could have significant cost implications. A recent Business Case Analysis found that a 5% reduction in falls with injury alone would lead to a $285,517 saving per month statewide. If we use the estimate of 1.5 falls per patient year, the savings would be $1.5 million per year statewide.



With six months of data, acute care facilities participating in the statewide SAFE from FALLS rollout are reporting lower rates of falls with injury than rates reported among the pilot group. MPSC will continue to monitor the data over time to establish a trend and cost savings and as we track and recruit additional facilities.

Perinatal Learning Network

Collaboratives, one of our most powerful interventions, usually are 12-18 months in duration. Permanently improving complex systems takes much longer. In addition, participants in all MPSC Collaboratives have become close colleagues and have requested that we continue to support their efforts. Therefore MPSC extended the work of the Perinatal Collaborative by supporting a learning network phase. Funding has been generously extended by the Center for Maternal and Child Health, Department of Health & Mental Hygiene (DHMH) through June 2011 in the amount of $250,000 to ensure support for ongoing participation, data collection, and implementation support from Delmarva.



Perinatal Learning Network Poster at the IHI Annual Forum, December 2009

Participants now represent 28 hospitals in Maryland and two in the District of Columbia, including Level I, Level II and Level III hospitals.

The aim of the Perinatal Learning Network is to reduce maternal and infant harm through the implementation and integration of systems improvements and team behaviors into maternal-fetal care. Harm will continue to be measured using the Adverse Outcomes Index (AOI). Maryland was the first state in the country applying the AOI to improvement activities. The baseline period for measurement was calendar year 2006. The follow-up period was October 2007 through September 2009. Baseline and post-intervention data have been collected using the AOI and the Hospital Patient Safety Culture Survey.

In year two of the Learning Network, there were no maternal or neonatal deaths reported in Level II or Level III facilities.

Notable improvements for Level I & II hospitals include:

- 100% decrease in neonatal deaths
- 54% decrease in uterine rupture
- 19% decrease in returns to L& D

For Level III hospitals, notable improvements include:

- 22% decrease in admissions to the ICU
- 23% decrease in admissions to the NICU for babies >2500 g with >24 hour stay

The Learning Network set a new focus in FY2010 on reducing elective deliveries before 39 weeks without medical indication, a practice associated with reduced risks and complications. In less than one year, participating facilities have reported a 17% reduction in elective inductions and 23% reduction in scheduled Cesarean Sections prior to 39 weeks gestational age. This ability to implement these changes is likely linked in part to improvement in patient safety culture, wherein over 70% of the hospitals improved staff perception of teamwork and communication and more than 60% improved the overall perception of safety. For FY2011, plans are to execute two team reunions, offer regular team conference calls, provide data reports and analysis to participants, and conduct a culture survey.

Neonatal Learning Network

The successful MPSC Perinatal Collaborative unleashed a heightened recognition and new urgency from the neonatal community for a similar initiative aimed at addressing preventable harm among infants receiving care in Level II (special care) and level III (neonatal intensive care) nurseries. A generous grant from CareFirst® BlueCross® BlueShield® in the amount of $635,000.00 was awarded to MPSC to launch and support the Neonatal Collaborative through June 2010. A second grant request totaling $215,000 will support the continuation of the program in a learning network format in FY2011, implemented with Delmarva.

The program is energized by the strong leadership of local and national experts, and includes the participation of 28 nurseries in Maryland, the District of Columbia, and Northern Virginia. Combined, these facilities represent 75% of area hospitals providing specialty and intensive care to neonates in our region. The work of the Collaborative touches more than 32,000 infants born each year and affords participants the opportunity to significantly impact health outcomes, length of stay and inpatient costs.

The Learning Network will continue the aims of the Collaborative, which are to:

- Reduce healthcare-associated infection by 50% through the implementation of evidence-based prevention care practices
- Decrease neonatal morality by 10%, chronic lung disease by 10%, and length of stay by 10% through standardized resuscitation and stabilization of the neonate in the first hour of life (Golden Hour)
- Improve teamwork and communication through the implementation of team behaviors, including the family, into neonatal care as measured by the Agency for Healthcare Research and Quality (AHRQ) Hospital Patient Safety Survey. Fifty percent (50%) of participating neonatal units will improve their perception of safety at one year.

The MPSC Neonatal Collaborative has an elaborate set of measures currently being tracked to evaluate success for both process and outcomes. As of five months after the initiation of the Collaborative, approximately 50% of the teams are routinely reporting. We expect to see consistent reporting by more than 80% of the teams by June 2010.

For FY2011, the program plans are to:

- Execute two team reunions;
- Offer regular team conference calls;
- Provide data reports and analysis to participants; and
- Conduct a patient safety culture survey for each participating facility.

Maryland Hospital Hand Hygiene Collaborative

Hand hygiene is a critical factor in preventing the spread of potentially devastating infections. The spread of viruses and bacteria, such as H1N1, MRSA, and other community and healthcare-associated infections (HAI) can be mitigated by intense, targeted, and community-oriented initiatives. The recent focus on the H1N1 presents a ripe opportunity to address hand hygiene as a critical public health and disaster preparedness issue.

The Maryland Hospital Hand Hygiene Collaborative was launched at a kick-off meeting on November 3, 2009 with broad participation from the healthcare community. Key aspects of the program include:

- Aim to have full participation by all Maryland hospitals. To date 96% have registered.
- Potential to dramatically improve care, reduce waste, increase awareness among providers, and lead to savings to the healthcare system.
- Mandate for this program is derived from the Maryland Governor's Health Quality & Cost Council and the Maryland Health Care Commission's Healthcare-Associated Infections Advisory Council.
- Kick-off meeting included high-profile speakers, among them, the Maryland Lieutenant Governor and Secretary of Health, drawing participants and building wide spread public awareness.
- Ongoing oversight and planning by a robust project team and the Governor's Health Quality & Cost Council.

MPSC is working in partnership with the Maryland Hospital Association, the Delmarva Foundation for Medical Care, DHMH, the Maryland Heath Care Commission (MHCC), and the Johns Hopkins Center for Innovation in Quality Care to carry out the Hand Hygiene initiative. Progress is reported back to the MHCC and the Governor's Council.

About the Maryland Hospital Hand Hygiene Collaborative

*"This hand hygiene collaborative will protect staff and patients from infection…We know that no other single behavior or activity can **save lives and prevent healthcare-associated infections** better than comprehensive hand washing by healthcare providers."*

-Anthony Brown
Lieutenant Governor
Maryland

*"I think it is a relatively **low-cost, high-yield** method of preventing the spread of illness within healthcare and within communities as well."*

-Jeff Sternlicht, MD
Chair, Emergency Medicine
Greater Baltimore Medical Center

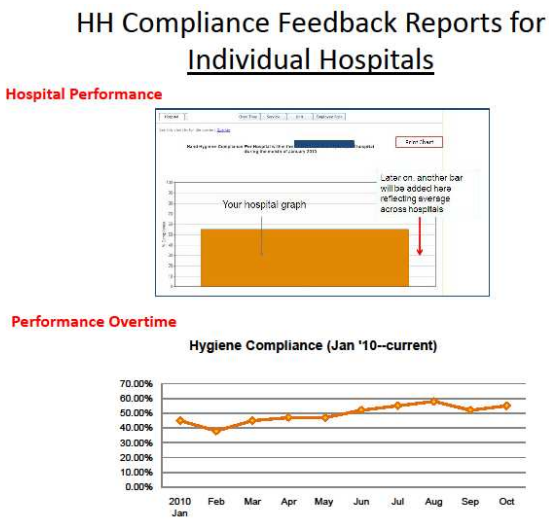
Photo courtesy of the Governor's Press Office

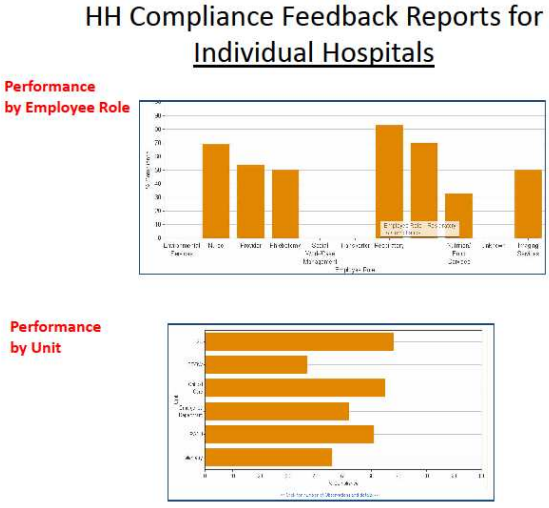
Secretary Colmers, MPSC Executive Director Minogue, and Lt. Governor Brown at the Hand Hygiene Press Conference, November 2009

The overall aim is for all Hand Hygiene Collaborative participants to achieve a hand hygiene compliance rate of at least 90% for all units/participants. This measure will be assessed using trained unknown observers and will be reinforced by auditing the hand hygiene program in each participating facility on a quarterly basis. This statewide effort will share best practices in the collection of standardized hand hygiene data and implementation of strategies aimed at improving hand hygiene compliance, with an ultimate goal of reducing the number of HAIs in Maryland. Facilities track and report the following key metrics:

- Hand Hygiene Compliance rate (monthly):
  - Observation of hand hygiene upon exiting the patient treatment area
  - Collection of at least 30 observations per unit per month
  - Applying the standard observation protocol
- Process Measures focusing on internal facility steps and activities (quarterly):

The Johns Hopkins Center for Innovation in Quality Healthcare has developed and provided the database for online or mobile device data submission of hand hygiene compliance data. The Center also provides the monthly reports that hospitals can use to track their progress, depicted in the screen shots below using sample data.





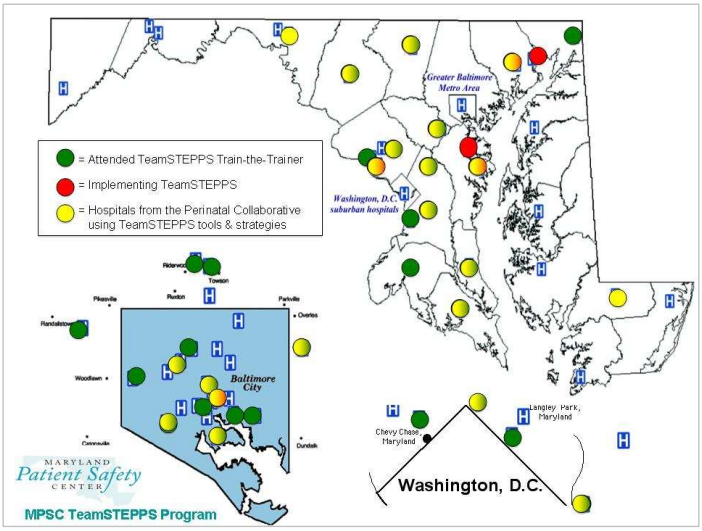
In addition, facilities will be able to submit quarterly updates on processes they have put in place via an online site offered by the Center for Performance Sciences. Collaborative activities will extend through February 2011, tentatively, and at that point the program will transition to a Learning Network approach to provide ongoing data collection activities and support.

Support for a portion of the Hand Hygiene budget has been committed by the Maryland DHMH through an American Recovery and Reinvestment Act of 2009 (ARRA) stimulus request. DHMH has committed $100,000 toward the hand hygiene program via this funding vehicle.

TeamSTEPPS™ Learning Network

Improving teamwork, especially in clinical teams, may be the single most important culture change that is needed to make a significant improvement in patient safety. MPSC has adopted TeamSTEPPS™ training, made available by AHRQ, as its recommended methodology for improving clinical teamwork and communication. There is substantial evidence that poor cooperation and communication is a primary cause of error in healthcare. After several disastrous crashes, the military and commercial airlines adopted a "crew resource management" concept to develop effective teams where communication is open and frequent. It has contributed to the airline industry having significant improvements in its safety record. TeamSTEPPS™ applies that concept to healthcare.

MPSC's program, launched in 2008, takes users step-by-step through implementation, detailing the roadmap for creating change and shifting the organization toward a sustained culture of safety. There is great local interest in these innovative tools. The map at right depicts the spread and uptake of TeamSTEPPS™ concepts since MPSC initiated the program. MPSC will continue to offer its train the trainer program and support through a modified learning network during FY2011.



Education Programs

Education is one of the primary strategies the MPSC uses to encourage the adoption of safer practices in Maryland hospitals and nursing homes. The Maryland Healthcare Education Institute (MHEI), an affiliate of the MHA, carries out a comprehensive series of educational offerings on behalf of the Center. The MPSC's educational activities have been designed to achieve the following goals:

- Create awareness of the need for improved patient safety and of the cultural changes required for significant improvements.
- Ensure that healthcare leaders have the competencies essential for safety improvement.
- Disseminate patient safety solutions and best practices.
- Create a safety-oriented culture in organizations by focusing leadership on key issues and concepts
- Serve as a catalyst and convener for best practices and solutions in patient safety.

These programs have very high uptake among providers. Participation in the programs has included acute care hospitals (65%), healthcare systems (10%), specialty hospitals (8%), long-term-care facilities (7%), and other providers (9%). In fact the past two years have seen record breaking registrations for the MPSC Annual Conference, including more than 1400 registrants for 2010. FY2011 programs fall into several categories outlined as follows.

Process Improvement Programs

The aim of the Process Improvement Programming is to give participants in-depth competencies in how to improve specific systems and processes so that processes can be made both more efficient and safer. There is no question that hospitals and all healthcare organizations are under significant pressure to provide safer care, improve clinical quality, and cut costs through more efficient operations. MPSC believes that this set of programs are especially suited to assist in meeting this objective. In fact, one facility reports savings of up to $20,000 related to pharmacy inventory reduction, 33% reduction in turnaround time for medication orders, and annualized savings of up to $2.2 million due to reduced cases of missing and reordered medications. Analysis from a second site that targeted emergency department efficiencies is currently underway.

What participants say about MPSC educational sessions

*"I know I will be able to **contribute a great deal** to my organization as a result of the skills I have obtained from this very worthwhile endeavor."*

-Participant
MPSC Process Improvement Program

MPSC will continue to offer a combination of Lean and Six Sigma methodologies, which provides a comprehensive set of strategies to address these issues. Lean's origin is in Japanese performance improvement techniques, especially the Toyota Production System. Six Sigma is an evolution of the Continuous Quality Improvement (CQI) tools and strategies, with a greater degree of statistical use. The key is to drive out waste and improve safety through Lean use, and continually refine performance through state of the art Six Sigma methods.

A team assesses opportunities to eliminate waste at an MPSC Lean Kaizen event

Professional Development Programs

There are many topics in patient safety that need to be addressed in more depth, targeting the skills, information, and tools that professionals can apply immediately to their work. The Professional Development Series, which includes six course offerings, is designed to meet that need. Courses are designed for patient safety officers, other patient safety professionals, and department heads. The programs are structured as workshops with a limited audience so that significant interaction and practice can occur.

The programs provide tools to address important topics in patient safety, such as:

- Specific tools to address potential conflicts between accountability and just cultures.
- Reinforce skills for leaders to use in engaging patients and families.
- Advancing innovation & sustaining improvement.

These high-intensity programs are among the most popular that MPSC offers. MPSC has begun to apply a fee for the three and five day programs offered in this series to offset the program cost.

Patient Safety Tools Training

Health care facilities spend considerable time improving processes and yet untoward events still happen. Why? Because often process changes are not directed at the latent conditions that cause people to make mistakes. In this series of eight one-day workshops, healthcare managers and professionals learn how to determine if the fundamental system deficiencies that precipitated an untoward event have been found, how to develop sustainable corrective actions to prevent similar incidents in the future, and how to build systems so that errors are prevented proactively. The programs offer specific tools and skills development that directly support other programs and initiatives of MPSC.

The aim of these popular courses is to enable widespread adoption of the basic tools of patient safety. The programs are each offered multiple times to reach a broad healthcare audience, ensuring that:

- Root Cause Analysis (RCA) is understood by a significant number of healthcare managers and professionals.
- Maryland Office of Health Care Quality (OHCQ) requirements for RCA are understood.
- Failure Mode & Effects Analysis (FMEA) is understood and applied as a methodology for proactively building safe systems.

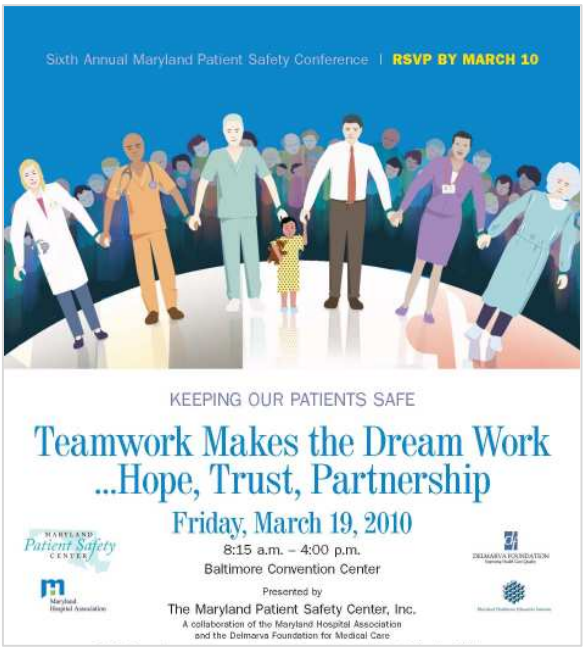
What participants say about the MPSC Annual Conference

*"The material was presented well and was **extremely pertinent** to healthcare and safety, of both our staff and our patients."*

- Conference Attendee
MPSC Annual Conference

*"Terrific and **motivational**."*

- Conference Attendee
MPSC Annual Conference



Annual Conference

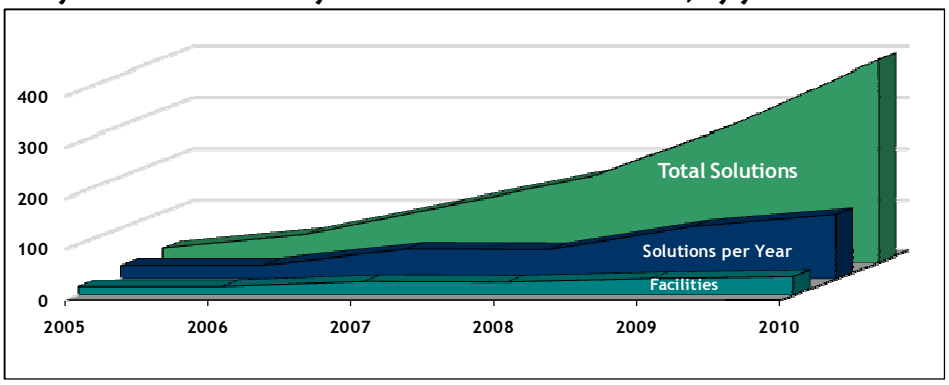
The Annual Maryland Patient Safety Conference is MPSC's signature event of the year. It provides awareness, specific education, and best practice solutions to a broad-based audience that goes well beyond MPSC's usual participants. The conference is designed to move the patient safety agenda forward in the region.

The March 19, 2010 Conference was our sixth and included more than 1400 registrants, 21 sessions, and a spectacular set of speakers and moderators. It continued the theme of teamwork with a specific focus on patients and families as part of the healthcare team. The keynote speech by Susan Sheridan, Co-Founder of Consumers Advancing Patient Safety, was a moving talk about her experience with two devastating medical errors in her immediate family and the steps she has taken to end medical errors. In addition, approximately 700 people stayed for the Wrap Up, many of whom submitted

to us the specific actions they were going to take as a result of the conference. One person from Carroll County Hospital said at the Wrap Up, "I wish I could have had all of my nurses here today because it was so exciting." We will follow-up on their responses in the coming months.

Remarkably, each year MPSC receives more and more submissions to the Directory of Solutions, which each conference participant receives. There was more than a twofold increase in submissions from 2008 (56) to 2010 (126). This represents strong interest in the Solutions approach, shows a willingness to share, and, most importantly, demonstrates a focused and growing commitment to patient safety efforts among providers in the region.

Patient Safety Solutions Submitted to the Maryland Patient Safety Center Annual Conference, by year

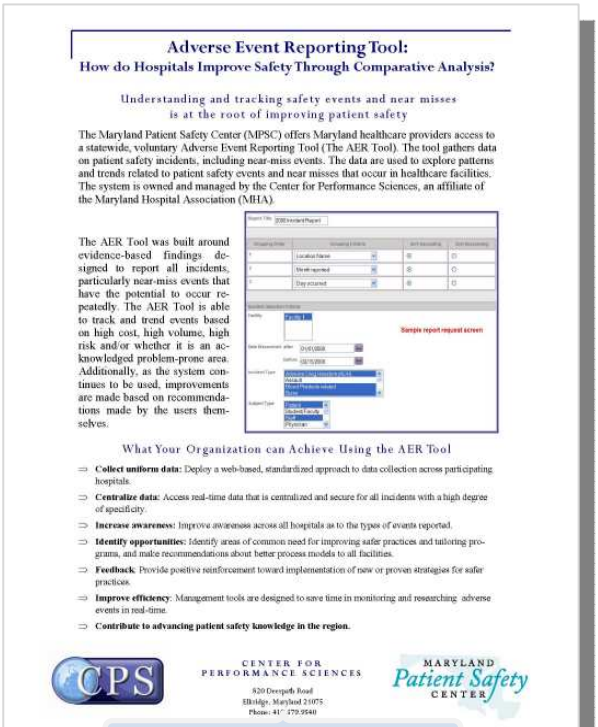


Research Programs

The research arm of the MPSC adds a synthesizing function by evaluating new knowledge from the field and complementing it with findings from MPSC's various activities. In particular, research activities have focused on the MEDSAFE program and analysis of data from the Adverse Event Reporting System, described previously.

Adverse Event Reporting Tool

MPSC's Adverse Event Reporting (AER) Tool was designed to gather data on patient safety incidents, particularly near miss events that offer great opportunity for learning. The data are used to explore patterns and trends related to patient safety events and near misses that occur in healthcare facilities. The software is owned by the Center for Performance Sciences, an affiliate of MHA, which provides the flexibility to tailor and refine the program to meet the needs of the users and to react to trends in the healthcare community.


Adverse Event Reporting Tool:
How do Hospitals Improve Safety Through Comparative Analysis?

Understanding and tracking safety events and near misses is at the root of improving patient safety

The Maryland Patient Safety Center (MPSC) offers Maryland healthcare providers access to a statewide, voluntary Adverse Event Reporting Tool (The AER Tool). The tool gathers data on patient safety incidents, including near-miss events. The data are used to explore patterns and trends related to patient safety events and near misses that occur in healthcare facilities. The system is owned and managed by the Center for Performance Sciences, an affiliate of the Maryland Hospital Association (MHA).

The AER Tool was built around evidence-based findings designed to report all incidents, particularly near-miss events that have the potential to occur repeatedly. The AER Tool is able to track and trend events based on high cost, high volume, high risk and/or whether it is an acknowledged problem-prone area. Additionally, as the system continues to be used, improvements are made based on recommendations made by the users themselves.

What Your Organization can Achieve Using the AER Tool

- **Collect uniform data:** Deploy a web-based, standardized approach to data collection across participating hospitals.
- **Centralize data:** Access real-time data that is centralized and secure for all incidents with a high degree of specificity.
- **Increase awareness:** Improve awareness across all hospitals as to the types of events reported.
- **Identify opportunities:** Identify areas of common need for improving safer practices and tailoring programs, and make recommendations about better process models to all facilities.
- **Feedback:** Provide positive reinforcement toward implementation of new or proven strategies for safer practices.
- **Improve efficiency:** Management tools are designed to save time in monitoring and researching adverse events in real-time.
- **Contribute to advancing patient safety knowledge in the region.**

CPS CENTER FOR PERFORMANCE SCIENCES

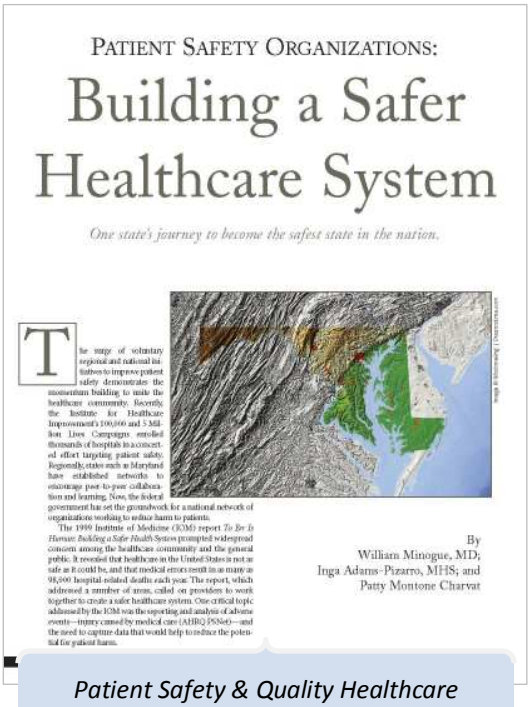
MARYLAND Patient Safety CENTER

AER Informational Brochure

AER is a mechanism by which participants can report data to MPSC. The system assists health care entities to determine their own organizational strategic priorities for patient safety, focus organizational efforts toward improving processes, and promote safer patient care practices.

The plans for FY2011 include:

- Revision and updates to the tool consistent with national standards being developed by AHRQ and the Patient Safety Organization (PSO) network
- Incorporates an Expert Panel and, as appropriate, a User Group to provide oversight and input on the system
- Involves support from clinical and statistical experts to participate in analysis and report writing


PATIENT SAFETY ORGANIZATIONS:

Building a Safer Healthcare System

One state's journey to become the safest state in the nation.

By William Minogue, MD; Inga Adams-Pizarro, MHS; and Patty Montone Charvat

Patient Safety & Quality Healthcare
May/June 2009

Three additional facilities adopted use of the tool in the last six months, and additional facilities are expressing interest in accessing this critical resource.

As a federally-listed PSOs, MPSC offers the most comprehensive set of programs supporting adverse event reporting of any similar organization in the country. The AERS is a complementary system to the mandatory reporting of adverse events resulting in death or serious disability to the Maryland Department of Health and Mental Hygiene as it captures voluntary reporting of information on adverse events and near misses. MPSC's approach as a PSO was highlighted in the publication Patient Safety & Quality Healthcare and at the National Patient Safety Foundation conference.

MEDSAFE

The MEDSAFE initiative is celebrating its 10th year of data collection to study medication safety. The survey has been administered since 1999 with the voluntary participation of all Maryland acute care hospitals. The program was transferred to MPSC, and continues to promote and study the implementation of safe medication practices in facilities. It both assesses better practices of medication use and is an educational initiative for sharing these practices among hospitals. MEDSAFE continues to be a very valuable service of the Center.

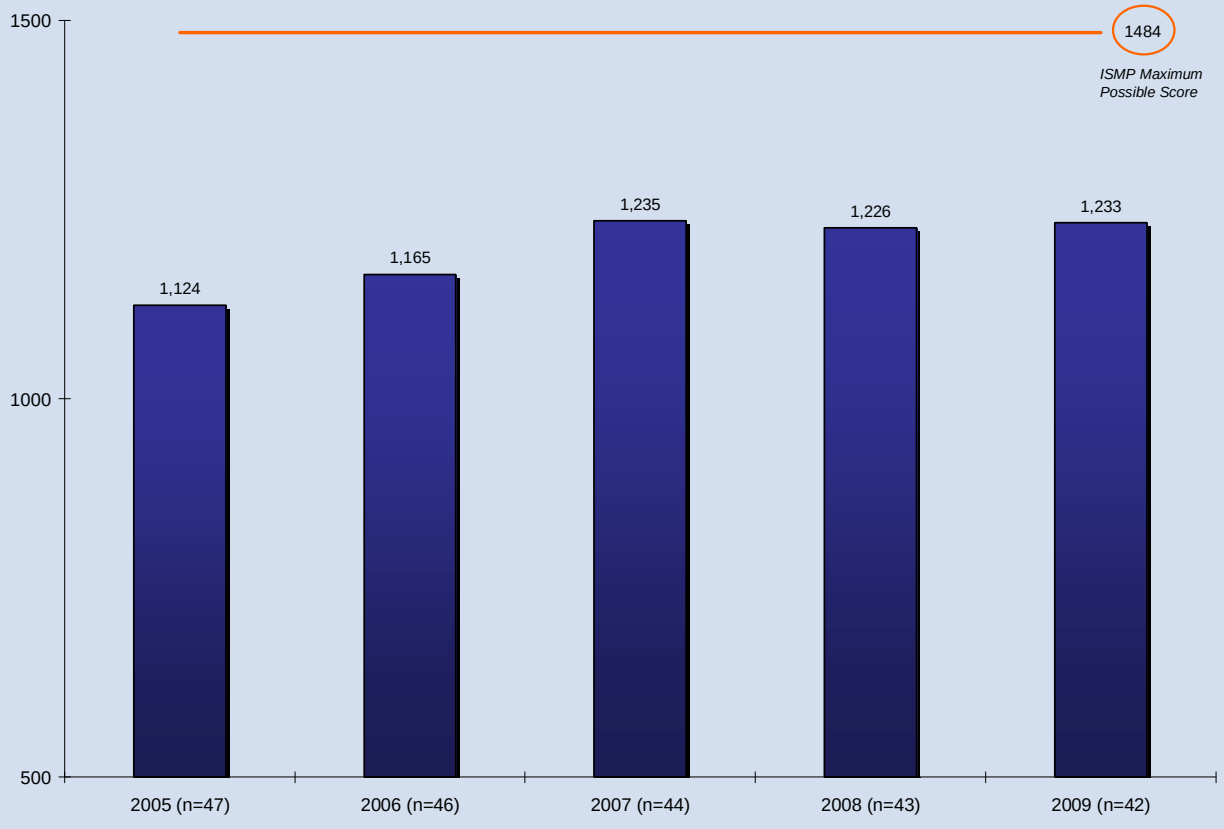
The survey has identified significant improvement in medication safety, as shown in the graphic on the following page, as well as gaps between actual and optimal performance. From 2005 to 2009, Maryland hospitals showed an increase of 9.2% in the overall median score for medication safety on the annual MEDSAFE survey, most notably in communication related to medications (+23%) and staff competency/education (+23%). A scientific paper about MEDSAFE was

published in Fall 2009 the peer reviewed journal *Quality & Safety in Health Care*. The results are depicted in the figure below.

The program implementation team and the Maryland Healthcare Education Institute use the data to design an annual conference aimed at sharing best practices and emerging innovations in this area, attended by an average of 200 practitioners annually. Another conference is planned for September 2010 and the annual survey will occur in Spring 2011.

MPSC Median Medication Safety Scores by Year: 2005 - 2009

- The aggregate median score increased substantially from 2005 to 2007 and has remained steady through 2009.
- The aggregate median score in 2005 was 76% of the ISMP maximum possible score, and 83% in 2009 (an increase of 9.2% in the overall median score).



State of the State Measurement Plan

Among the strategic goals of MPSC is the systematic depiction of the state of safety in Maryland and advancing the cause of measurement. MPSC believes that this effort is critical to demonstrating the state of healthcare in Maryland and the impact of the Center. Toward this goal, a committee of MPSC Board members, customers, and representatives of Delmarva and MHA was formed to draw the blueprint for action to measure the status of patient safety in Maryland over time. MHA's Center for Performance Sciences provides support to this effort.

The measurement workgroup defines measurement approaches at three levels. The first is measuring the impact of programs sponsored by MPSC such as the Perinatal Collaborative, the Falls program, or the educational offerings such as the annual meeting. The second level addresses measures to provide comparative safety data within Maryland. Finally the workgroup is addressing ways of assessing progress against the vision of "Making Maryland healthcare the safest in the nation."

A measurement report template is planned to be completed in the current fiscal year ending June 2010, and MPSC will be pleased to provide that report to HSCRC staff when it is complete. MPSC recognizes that over time there will be opportunities to enhance and further develop the measurement report approach. For this reason, in FY2011, MPSC will enhance and continue to prepare the report based on the template developed in FY2010.

Other Special Projects

MPSC engages in a series of other activities, hosts meetings, and partners with organizations to make resources and information available to the Maryland healthcare community. Among these activities are the following:

Condition H

More than 75 healthcare providers representing 22 hospitals attended the Condition H Regional Workshop, sponsored by MPSC in September 2009. Condition H (Help) is an extension of rapid response teams (RRTs). Initially, healthcare providers could activate an RRT, which would summon a special team (generally consisting of ICU personnel and others) to assess and treat patients outside the intensive care unit (ICU) who show signs of deterioration and/or may be at risk for cardiac arrest or death.

With the inspiration of Sorrell King, whose 18-month old daughter died as a result of a medical error, patients and families are now being empowered to call RRTs through Condition H programs at a number of hospitals around the country.

*"I know in my heart - 100% - that **if I had been able to call a rapid response team, she would be alive today**. No doubt."*

- Sorrel King
Regarding her daughter, Josie King
Co-Founder
Josie King Foundation
MPSC Board Member

*"Implementing Condition H is a **real culture change** in hospitals."*

- Kathy Duncan, RN
Institute for healthcare Improvement
Faculty, Condition H Collaborative

Over a year ago, MPSC began its work on Condition H through a pilot project of early adopter hospitals funded by CareFirst® BlueCross® BlueShield® and organized by the Delmarva Foundation. Drawing on the lessons learned from the MPSC pilot project, as well as the work done by the University of Pittsburgh Medical Center, other providers, and experts in RRTs, the MPSC September workshop offered a wealth of knowledge and information about implementing Condition H in individual facilities.

A comprehensive toolkit and video about Condition H are in development and will be available to MPSC members in the Spring 2010.

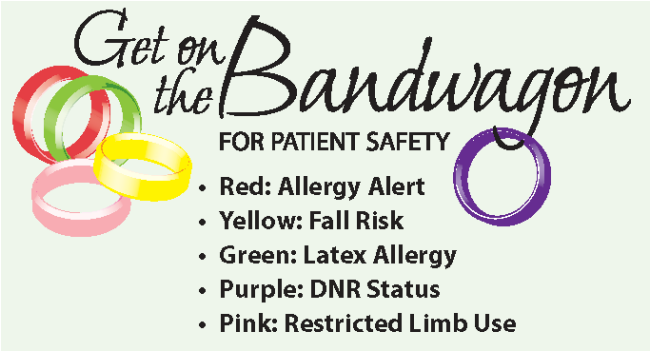
Maryland Hospitals Involving Patients and Families in Care Teams through MPSC's Condition H Initiative

Get on the Bandwagon for Patient Safety

Evidence shows that standardization is a remarkably effective tool for improving the likelihood of full and accurate communication. With this in mind, the Maryland Hospital Association and MPSC are launching the **Get on the Bandwagon for Patient Safety** program to standardize the color of patient wristbands in healthcare settings throughout Maryland.

To alert caregivers to certain patient risks many facilities use color-coded patient wristbands. However, if hospitals and other healthcare providers use different colors for these alerts, caregivers working in more than one facility may have difficulty always responding in the appropriate manner. Standardizing the colors of the wristbands used in healthcare settings is the sensible approach to improving patient safety, and over 30 states are using these color-coded wristbands or plan to implement such a program, including all of the states surrounding Maryland. A national advisory from the American Hospital Association has underscored the importance of standardized wristband colors.

The Maryland **Get on the Bandwagon for Patient Safety** program is unique in that it is moving beyond the hospital and is engaging long-term care facilities and patients and families in this effort. The voluntary program offers standardized colors for patient wristbands in Maryland.



Details about this initiative, including a toolkit of information for implementation, have been sent to hospitals and other healthcare providers. The toolkit and other information are available to providers on the MPSC website.

MPSC Patient Safety Officers Forum

Created by MPSC Executive Director William Minogue, MD, FACP, and Vivian Miller, Patient Safety Specialist, Maryland Hospital Association, the Forum brings together hospital and nursing home patient safety officers (PSOs) and many others engaged in improving patient safety and the quality of healthcare in their institutions.

The PSO Forum, hosted every other month, offers updates, education, and information about what is happening in patient safety in the region, across the country, and around the world. "The Forum has been invaluable to introducing new initiatives from across the country," said Tina Gionet, RN, MS, Patient Safety Officer from Sinai Hospital of Baltimore. "When we can share stories about successful initiatives being conducted at other sites it really helps our staff engage in meaningful discussions regarding patient safety issues."

Annual Leadership Breakfast

Paul O'Neill, former Treasury Secretary and Alcoa Chief Executive Officer, shared key leadership principles for safety during an October 19, 2009 leadership breakfast held by MPSC and MHEI. Speaking to a room of approximately 60 healthcare leaders, including CEOs, medical leaders, and hospital board members, O'Neill focused on three main principles that lay the foundation for improving employee wellness and satisfaction, enhancing safety and quality for patients, and strengthening profit and value to companies. MPSC distributed a summary of the talk as an "issue brief" for healthcare leaders.

Paul O'Neill Addresses Healthcare Leaders at the MPSC Annual Leadership Breakfast

Boards on Board

A recent day-long, by-invitation-only roundtable sponsored by MPSC and MHEI addressed how to get Boards more engaged in patient safety. Participants included Presidents/CEOs and Board members from nine Maryland hospitals and health systems. James L. Reinertsen, MD, Senior Fellow at the Institute for Healthcare Improvement (IHI) and President of The Reinertsen Group, framed, guided, and facilitated the discussion.

MPSC/MHEI developed a "working paper" to synthesize the day's discussions. It also contains 10 practical, "actionable" strategies for engaging hospital Boards in patient safety and seven questions healthcare Board members shouldn't hesitate to ask their executive team.

MPSC Core Administration

MPSC's core operations include shaping and implementing innovative programming, management of a major fundraising campaign, amplified efforts to formally enroll healthcare providers across the continuum of care in MPSC programs, and targeted measurement tracking. We believe that the six strategic focus areas provide the cornerstone for engagement in and success of MPSC's ongoing programs.

MPSC's Core Administration staff include a new incoming Executive Director, a Director of Operations and Development, and an Executive Assistant who manage and implement a number of key responsibilities intended to ensure oversight of the numerous programs and initiatives of the center. This includes management of relationships with internal and external stakeholders, supporting governance activities, fund development, communication activities, and others.

MPSC hopes to bring on an additional staff member in the second quarter of the fiscal year to fill a program manager/coordinator role. This will depend in part on early success with the fundraising program, described below.

MPSC's founding Executive Director, Dr. William Minogue, will retire on March 31, 2010. The press release announcing Dr. Minogue's retirement is in Attachment B. After a careful national search, the MPSC Board of Directors selected C. Patrick Chaulk, MD, MPH to join the Center as its new Executive Director & President. As Senior Associate for Health at the Annie E. Casey Foundation in Baltimore since 1994, Dr. Chaulk managed the foundation's grant portfolio in health and public health. He has a clinical background in pediatrics, providing primary care to children and adolescents in East Baltimore for eight years and has provided clinical services to clients of Baltimore City public health clinics. The press release announcing Dr. Chaulk's position is in Attachment C. Dr. Chaulk will join MPSC on April 1, 2010.

In addition to requiring that all programs implement and report on key metrics, MPSC will continue to support the Measurement Committee of the board, as well as an external evaluator, which is assisting in designing a system for demonstrating the State of the State in patient safety as well as a dashboard for monitoring MPSC's success.

MPSC's Core Administration staff manage and implement a number of key activities in support of the Center. These include:

- Oversight of the numerous programs and initiatives of the center, including holding bimonthly meetings of the Center's Operations Committee
- Management of relationships with internal and external stakeholders
- Convening the Board of Directors and Board Committees
- Oversight of fund development, finances, and human resources
- Implementation of communication activities
- Contribute to external committees and programs

MPSC will engage a select number of consultants to enhance and strengthen these efforts. Consultants will be engaged in the areas of:

- Ongoing development of the MPSC measurement strategy
- Communications consultant to support the newsletter, press releases, website, and other communication initiatives (continuation of support from previous years)
- A major fundraising campaign, guided by an external firm, to provide guidance on MPSC's fund development plan and help the Center meet a $10 million goal

In addition to the planned staff adjustments, the Center's core administration budget reflects a new approach to management of the Patient Safety Officer's Forum and the Delmarva Core Administration activities. Both of these proposals and budgets reflect activities and responsibilities that functionally rest within MPSC core staff. The budgets for each have been added to the MPSC Core Administration budget, rather than as separate budgets as it has been handled in the past, so that the MPSC staff may assess the programs and work jointly with our partners to develop a guided implementation approach, including deliverables. Therefore, while the Core Administration budget is larger than previous year, it includes staffing commensurate with Center needs, a realignment of oversight of certain programs to Core Administration, and the addition of support for the fundraising initiative.

Fundraising Plan – Keeping Patients Safe Campaign

MPSC is committed to financial sustainability for the Center. This sustainability will result in part from the quality and impact of the work conducted by the Center, and also from a strategic initiative to raise supporting dollars for the Center from a diversified set of sources.

In FY2010, MPSC and partners were successful in securing program-specific funding in the following amounts:

- $100,000 in support of the Maryland Hospital Hand Hygiene Collaborative from the Maryland Department of Health & Human Services (DHMH) through an American Recovery and Reinvestment Act of 2009 (ARRA) stimulus request.
- $250,000 from DHMH for continued support of the Maryland Perinatal Learning Network.
- $215,000 from CareFirst BlueCross BlueShield in continued support of the Maryland Neonatal Collaborative as it transitions into a Learning Network.

MPSC began implementing a Strategic Fundraising Plan in FY2010. In December 2009, as a result of discussions with the Board of Directors and the Board Executive/Finance Committee, MPSC opted to suspend the activity underway in order to define a new, broader approach. It was clear that MPSC's programmatic and strategic growth would benefit from a fundraising approach that would be larger and more dynamic, but that to achieve MPSC's targets the Center would require additional support and expertise. To that end, MPSC initiated a search for a fundraising firm that could provide a team-based approach to initiate and backstop the campaign. Much of the work completed in early FY2010 will be transitioned to this new purpose. This campaign and approach was approved and endorsed by the MPSC Board of Directors at its March 8, 2010 meeting.

The new Campaign goal is $10 Million. It is based on the organization's vision, mission, objectives, strategic plan, and funding requirements. MPSC will retain the campaign name, entitled the *Keeping Patients Safe Campaign*. The *Keeping Patients Safe Campaign* creates an identifiable umbrella for MPSC's funding efforts and programs.

MPSC will convene a Campaign Executive Committee and related subcommittees. Volunteers on the committees will lend support over time to secure the financial commitments that will make the fundraising campaign successful. MPSC staff and Board members will be active participants and will provide oversight of the campaign progress.

Budget

MPSC's FY2011 budget is based on the proposals requested and received from MPSC's program partners, and reflected in the program descriptions provided in this document. The proposals were carefully reviewed and supported by the MPSC's Program Review Committee, a committee of the MPSC Board of Directors. The budget and program summary were approved by MPSC's Board of Directors.

The FY2011 revenue budget totals $3,432,568, which includes the following revenue streams:

- Revenue based on anticipated restricted and unrestricted sources
- Revenue from new charges for select educational programs
- A requested 45% match of expenses from HSCRC. HSCRC matches a portion of the MPSC Expense budget. Last year, HSCRC approved a 45% match, and requested a percentage/absolute dollar reduction in subsequent years. Though we propose a consistent percentage of 45%, this represents a drop in absolute dollars of $106,681.

The FY2011 expense budget totals $3,432,430, which includes the following:

- Continued support for key MPSC programs and activities as described in this document
- Enhanced Core Administration budget to account for the new Executive Director and .75 FTE Program Coordinator, a fundraising firm, and realigned budget management for two proposals submitted but not requested (CPS Patient Safety Officers Forum Proposal and the Delmarva Administration Support Proposal - to be evaluated by the incoming Executive Director).

This proposed budget includes contingency income totaling $188,300. MPSC will embark on an enhanced and more robust fundraising campaign starting in Spring 2010, which is intended to generate funds beyond the shortfall amount. However, MPSC will not depend in advance on that funding source to cover the shortfall. Instead, MPSC is putting a short set of expenses on hold pending additional funds. That way we are clear for MPSC, partners, and the Board which activities are approved and fully funded and which are impacted by the shortfall. These actions also acknowledge that MPSC faces a limited funding cycle, allows MPSC to maintain core programs and operations, and sets a clear plan to meet partner commitments.

Further monies raised as part of the fundraising goal are not incorporated into the MPSC FY2011 budget.

The MPSC Board of Directors approved the following FY2011 budget, pending acceptance by the HSCRC. A budget narrative included in Attachment D provides detail by line item.

Maryland Patient Safety Center
Proposed FY 11 Budget

		FY 10 Budget	FY 11 Budget
REVENUE			
Cash Contributions from MHA/Delmarva		400,000	400,000
Cash Contributions from Hospitals		230,000	250,000
HSCRC Funding		1,651,275	1,544,594
Restricted Grants (Carefirst, DHMH, ARRA Stimulus)		848,250	514,674
Fundraising Campaign		458,475	
Contingency Income			188,300
Other Funding-Mixed Sources		75,000	535,000
Interest Income		6,500	
	Total Revenue	**3,669,500**	**3,432,568**
EXPENSES			
Administration		637,800	986,820
Public Website		58,000	15,591
Patient Safety Education Programming		571,800	747,775
Adverse Event Reporting System		374,100	388,505
MEDSAFE Medication Safety Initiative		67,500	73,076
Team STEPPS Training/Learning Network			86,120
Measurement		111,050	59,915
Restricted Patient Safety Collaboratives		1,736,800	514,674
Unrestricted Patient Safety Collaboratives			267,365
Safe From Falls			292,589
	Total Expenses	**3,669,500**	**3,432,430**
Net Income			138

Attachments

Attachment A: Summary of Strategic Agenda aims from the MPSC Strategic Plan

Strategic Agenda #1. Measure MPSC success on vision

Goal: The intent of Strategic Agenda #1 is to create state-wide accountability for safety within and across institutions, to track Maryland safety performance compared to other states, to demonstrate MPSC's impact through initiatives and programs, and to communicate that information through annual reports and meetings.

Strategic Agenda #2. Position Patient & Family Voices to Influence Safety

Goal: The intent of Strategic Agenda #2 is to engage patients and families in creating a safer healthcare system in Maryland. As consumers of healthcare, patients and families form the basis of the demand for quality healthcare services. MPSC's Patient and Family Voices strategy is designed to place patients and families as a compelling and effective driver of safety at the state and local institutional level.

Strategic Agenda #3. Demonstrate economic impact & value of safety

Goal: The intent of Strategy #3 is to demonstrate the value and economic impact of safety for patients and healthcare providers, as well as the value added by MPSC programs. MPSC recognizes that when an injury is avoided and quality is high, there are benefits, savings and efficiencies to the healthcare system and to patients. Strategy #3 also translates the call from legislators, regulars, and payers into a business case for the MPSC.

Strategic Agenda #4. Enable partner institutions to create & spread excellence

Goal: The intent of Strategic Agenda #4 is to identify safety excellence within institutions and to spread excellence across institutions and providers. MPSC is a recognized and valued convener in the Maryland healthcare community. As such, MPSC is able to bring individuals and organizations together to focus on common and critical issues that impact patient safety.

Strategic Agenda #5. Support institutions in developing cultures of safety that spread and maintain safety excellence

Goal: Strategy #5 will assist staff, Executives and Boards of healthcare institutions identify methods and approaches for creating cultures of safety. Leaders are integral to setting the tone for safety within their organizations and for moving from a culture of blame to one of safety. MPSC recognizes the need to partner with leaders to support them to create a "burning platform" for safety. To accomplish this, MPSC will work directly with Boards and executives of healthcare organizations.

Strategic Agenda #6. Enable institutions to establish continuity of safe care across institutions

Goal: The intent of Strategy #6 is to have institutions working together to make patient transitions safe. MPSC will enhance programming for long term and home care providers. Representatives from across the continuum of care have been engaged as members of the Board of Directors, program advisory groups, and other meetings and opportunities offered by MPSC. MPSC will continue to build on this foundation to bring focus to the quality and safety hazards that occur as patients interact with multiple providers.

Attachment B: MPSC Announces Executive Director Retirement

For Further Information
Contact Patty Montone Charvat
978.273.7764; cpcharvat@aol.com

Executive Director of Maryland Patient Safety Center Announces Retirement
National search underway for successor to William Minogue, M.D.

October 13, 2009—William Minogue, MD, FACP, Executive Director and President of the Maryland Patient Safety Center (MPSC), has announced his plan to retire in March 2010.

"Over the last six years it has been a tremendous privilege for me to serve as the steward of the vitally important Maryland Patient Safety Center," said Dr. Minogue. "It has been rewarding to help guide this organization from a concept to a thriving Center of activity and energy committed to improving patient care."

Dr. Minogue has been at the helm of the organization since it was established in 2004 as a joint venture between the Maryland Hospital Association (MHA) and the Delmarva Foundation. During his tenure as Executive Director, Dr. Minogue has overseen successful efforts to reduce complications among mothers and newborns, reduce health care infections, expand awareness and help contain MRSA, decrease injury from patient falls, and provide ongoing education to reduce medical errors and share patient safety best practices. Under his leadership, the Center's comprehensive work to make Maryland health care the safest in the nation earned the national John M. Eisenberg Patient Safety Award in 2005.

"As a founding partner of the Maryland Patient Safety Center it has been rewarding to see the progress under Dr. Minogue's leadership to make Maryland's health care the safest in the nation. During his tenure, more than 11,000 health providers working in Maryland hospitals have been engaged in Patient Safety Center actions to create breakthrough improvement in health care quality," said Carmela Coyle, MHA President & CEO. "He has effectively translated his commitment to safe patient care into action on behalf of all patients in Maryland.

"Innovation, concrete results, and strong vision are the contributions made by Bill Minogue to the patient safety movement in Maryland and beyond," said Christian E. Jensen, MD, MPH, President and CEO,

Delmarva Foundation. "His collaborative spirit, commitment to excellence, and belief that together all providers and patients could make a difference has laid the foundation for a safer, more patient-centered health care environment in Maryland."

Before joining the Maryland Patient Safety Center, Dr. Minogue served as the Senior Vice President of Medical Affairs and Interim President and CEO of Suburban Hospital Healthcare System, Bethesda, Maryland. He is board-certified in internal medicine and a Fellow in the American College of Physicians.

"It's been a great pleasure to cap off my career working with so many people dedicated to delivering safer patient care," said Dr. Minogue.

The Board of Directors of the Center has initiated a nationwide search for a new Executive Director and President. A copy of the position description is available at www.marylandpatientsafety.org. Interested candidates can contact Meghan Altobello at maltobello@mhaonline.org.

About the Maryland Patient Safety Center
The Maryland Patient Safety Center, jointly supported by the Maryland Hospital Association and the Delmarva Foundation, brings together hospitals and health care providers to improve patient safety and health care quality for all Marylanders. The goal of the Patient Safety Center is to make Maryland's health care the safest in the nation by focusing on the systems of care, reducing the occurrence of adverse events, and improving the culture of patient safety at Maryland health care facilities. For further information, visit www.marylandpatientsafetycenter.org

Attachment C: MPSC Announces New Executive Director

MARYLAND Patient Safety CENTER

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For More Information Contact:
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Chaulk Appointed Executive Director of Maryland Patient Safety Center

February 25, 2010 -- C. Patrick Chaulk, MD, MPH, FACP has been appointed the Executive Director of the Maryland Patient Safety Center (MPSC), effective late March 2010. He replaces William Minogue, MD, FACP, who is retiring after leading the Maryland Patient Safety Center since its 2004 inception.

"Dr. Chaulk brings broad knowledge and experience in health policy, patient safety and clinical care—and is familiar to the patient safety community, having served as a member of the MPSC Board of Directors for the past two years," said MPSC Chair Kathleen M. White, PhD, RN, CNAA, BC, Associate Professor and Director, Doctor of Nursing Practice Program, The Johns Hopkins University School of Nursing. "With his passion for patient safety and quality care, Dr. Chaulk, in partnership with the MPSC Board of Directors and team, will further strengthen the Center's national leadership in quality and patient safety innovation."

As Senior Associate for Health at the Annie E. Casey Foundation in Baltimore since 1994, Dr. Chaulk managed the foundation's grant portfolio in health and public health. He has a clinical background in pediatrics, providing primary care to children and adolescents in East Baltimore for eight years and has provided clinical services to clients of Baltimore City public health clinics.

"First, it was an honor to become a part of this unique organization as a member of the MPSC Board of Directors," said Dr. Chaulk. "Now, it is a privilege to be given the opportunity to help guide the Maryland Patient Safety Center on its continuing journey to make Maryland healthcare the safest in the nation."

A collaboration between The Maryland Hospital Association and Delmarva Foundation for Medical Care
www.marylandpatientsafety.org

Dr. Chaulk has been teaching at The Johns Hospital School of Medicine and School of Public Health for 18 years. He is an Adjunct Associate Professor in the Department of Medicine in the Division of Infectious Disease and an Associate in the Department of Health Policy and Management at The Johns Hopkins Bloomberg School of Hygiene and Public Health.

Previously in his career, Dr. Chaulk has been Staff Director of the Governor's Commission on Health Care Policy and Financing for the Maryland Department of Health and Mental Hygiene; Health Planner for the Nebraska Department of Health; Legal Assistant for the General Counsel's Office in the U.S. Department of Commerce; and Congressional Staff to Congresswoman Virginia Smith in the late 1970s.

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About the Maryland Patient Safety Center
The Maryland Patient Safety Center, jointly supported by the Maryland Hospital Association and the Delmarva Foundation, brings together hospitals and health care providers to improve patient safety and health care quality for all Marylanders. The goal of the Patient Safety Center is to make Maryland's health care the safest in the nation by focusing on the systems of care, reducing the occurrence of adverse events, and improving the culture of patient safety at Maryland health care facilities. For further information, visit www.marylandpatientsafetycenter.org

A collaboration between The Maryland Hospital Association and Delmarva Foundation for Medical Care
www.marylandpatientsafety.org

Attachment D: Budget Narrative, MPSC FY2011 Budget

Maryland Patient Safety Center
Overview of FY 2011 Budget

The following summary provides an overview of the components included in MPSC's overall line item budget.

Revenue:
In FY 2011, Delmarva and MHA will each be contributing $200,000 to support the activities of MPSC. In addition, the MPSC will ask Maryland hospitals to contribute an aggregate $250,000. The MPSC is asking the HSCRC to continue its support of coordinated patient safety efforts in Maryland by contributing $1,544,594 to support 45% of the overall MPSC FY 2011 budget. Although the percentage of funding requested is the same as FY 2010, this request represents a decrease of $106,681 from FY 2010.

During the course of FY 2010, MPSC has struggled to find stable, long-term funding sources. As a result, MPSC has decided to implement a professional fund-raising campaign that is expected to generate $10M in funding, which will strengthen MPSC's ability to provide a consistent programmatic agenda.

The MPSC and its partners have sought and obtained additional funding to maintain and expand the scope of the MPSC as follows:

- The Maryland Department of Health and Mental Hygiene (DHMH) will continue to partially fund the Perinatal Collaborative by providing revenue of $250,000.
- American Recovery and Reinvestment Act stimulus funding of $50,000 will partially support the Hand Hygiene initiative in this Fiscal Year.
- CareFirst continued support for the Neonatal collaborative in the amount of $214,674.

Other sources of revenue include member fees from out-of-state facilities and income from vendors and sponsors at the Annual Conference. In addition, MPSC has implemented a policy that will charge participants for high-intensity process improvement educational sessions and small fee for attendance at the Annual Conference. In total, this revenue is anticipated to be $460,000.

Expense:
In FY 2011, the MPSC is anticipating total expenses of $3,432,430 to carry out the MPSC's agenda. Following is a detailed description for each budget line item.

Administration ($986,820)

The core activities of MPSC Core Administration in FY2011 remain largely consistent with FY2010. In a few cases, funds were moved from other budget lines to the Core Administration budget because oversight of the budget is provided by Core Administration. In addition, funds were added for new salary costs and the hiring of a major fundraising firm. In FY2011, MPSC will focus on the following critical areas:

- Fund development
- Patient Safety Organization strategy & outreach
- Ensure quality programs and evaluation for sustainability
- Assess the cost benefit impact of key programs
- Publication of results in major journals and other dissemination activities
- Maintaining strategic relationships, planning for and promoting success and engaging in business development activities
- Strengthen relationships and partnerships in the local and national healthcare community
- Work with the Board Nominating Committee to assess Board membership needs, then identify and reach out to potential new Board members
- Convene the Patient Safety Officer's Forum, a bimonthly meeting of Patient Safety Officers
- Grow the MPSC customer base. Examples include individual hospitals, and, home health, long-term care facilities, assisted living facilities, community pharmacy chains, physician offices and ambulatory surgical centers.
- Identify new business opportunities (grants, solicitations, etc.)
- Identify awards and press opportunities for MPSC as well as for strategic partners
- Travel strategically to conferences and meetings as speakers and networkers
- Participate on advisory boards such as the Maryland Healthcare Commission's Healthcare Associated Infections Advisory Committee and Hospital Performance Evaluation Guide Advisory Committee

MPSC will engage a select number of external consultants to enhance and strengthen these efforts. Consultants will be engaged in the areas of:

- Ongoing development of the MPSC measurement strategy
- Communications consultant to support the newsletter, press releases, website, and other communication initiatives (continuation of support from previous years)
- A major fundraising firm to provide guidance on MPSC's fund development plan and help the Center meet a $10 million goal

In addition to the planned staff adjustments, the Center's core administration budget reflects a new approach to management of the Patient Safety Officer's Forum and the Delmarva Core Administration activities. Both of these proposals and budgets reflect activities and responsibilities that functionally rest within MPSC core staff. The budgets for each have been added to the MPSC Core Administration budget, rather than as separate budgets as it has been handled in the past, so that the MPSC staff may assess the programs and work jointly with our partners to develop a guided implementation approach, including deliverables. Therefore, while the Core Administration budget is larger than previous year, it includes staffing commensurate with Center needs, a realignment of oversight of certain programs to Core Administration, and the addition of support for the fundraising initiative.

Public Website ($15,591)

MPSC's public website is a key communications tool for MPSC. In addition, it will play a critical role in the MPSC fundraising initiative and contributes to MPSC's strategic agenda to spread excellence. It also ensures an electronic avenue for design and distribution of MPSC information, tools, and resources.

Patient Safety Education Programming ($747,775)

Education programs will continue to focus on five major areas. 1) Patient safety tools training, including root cause analysis, and failure mode and effects analysis; 2) Management development, including department leader training, accountability matters, and creating safety partnerships with patients; 3) Process improvement, including LEAN workshops, Six Sigma Green Belt certification, and Six Sigma Black Belt certification; 4) Train the trainer, using the TeamSTEPPS framework; and, 5) Leadership issues. In addition, the MPSC will sponsor the annual patient safety conference.

MPSC and MHEI staff are working together on potential pricing approaches for educational programs. However, since many are so core to MPSC's mission, MPSC may charge a very minimal fee that would not discourage participation.

Adverse Event Information System and Data Analysis ($388,505)

This reflects ongoing project management support and oversight of the Adverse Event Reporting System. It reflects revision of the tool according to national standards being developed by AHRQ through the Patient Safety Organization network. It also incorporates the involvement of an Expert Panel and clinical and statistical experts to provide input on the system.

MEDSAFE Medication Safety Initiative ($73,076)

This is a continuation of the 11th year of the survey and the 10th year of the MEDSAFE conference. This supports MPSC's Measurement Strategy within the MPSC Strategic Plan. It also includes ongoing participation from the Institute for Safe Medication Practices, a nationally and internationally-recognized expert in this area.

TeamSTEPPS Training/Learning Network ($86,120)

From conversations with national and local experts, it is clear that many facilities have struggled with implementing TeamSTEPPS, whereas some have been very successful, including many in the Maryland Area. We believe that Maryland's success is in part because of how well TeamSTEPPS harmonizes with other MPSC programs.

MPSC believe that there is a strong need to support TeamSTEPPS in the region.

Measurement ($59,915)

This supports the Measurement agenda of MPSC's Strategic Plan. MPSC recognizes that this effort is critical to demonstrating the state of safety in Maryland and the impact of the Center, including reporting back to the Legislature and other stakeholders. Report metrics and templates will be developed in the current FY2010. The work specified in this proposal will be to sustain and improve on that effort in FY2011.

Patient Safety Collaborative Program ($782,039)

The Patient Safety Collaborative Programs focus on the implementation of evidence based practices and culture change in high hazard settings such as labor and delivery, Neonatal ICU's and a statewide Hand Hygiene initiative.

Perinatal Learning Network ($397,834):

This reflects support and expansion of a keystone program of the Maryland Patient Safety Center launched in 2007. It also supports the Maryland Department of Health and Mental Hygiene's plan for reducing infant mortality in the state of Maryland.

Neonatal Collaborative ($212,674):

This reflects transition to a Learning Network phase of the Neonatal Collaborative, launched in 2008, applying a model similar to that of the Perinatal Learning Network. It also ensures ongoing data collection of the key infection, clinical, and culture metrics.

Hand Hygiene Collaborative ($169,531):

Participating organizations benefit by having access to:

- Standardized measures, tools, and data analysis;
- A data management system supplying organizational, provider, and unit level specific reports;
- A Web-based training program for unknown hand hygiene observers;
- Organizational and unit level audits to evaluate current hand hygiene efforts;
- Campaign branding materials; and
- A network of experts and best practices.

Primary implementation is being led by the MPSC, in partnership with Maryland Hospital Association and the Delmarva Foundation for Medical Care. The Johns Hopkins Center for Innovation in Quality Patient Care is providing data collection methods and analysis. The Maryland Health Care Commission's Hand Hygiene and Infection Prevention Subcommittee serves as the expert panel for this initiative. A Steering Committee provides program oversight.

Safe From Falls ($292,589)

Falls continue to be identified as among the most frequent and highest-harm errors to occur in healthcare settings. There is great interest among the healthcare community to address patient falls. This represents the continuation and expansion of the SAFE from FALLS program to all hospitals and long-term care organizations in Maryland. It also builds on the program launched in FY201 and the pilot initiated in FY 2009.

Endnotes

[i] "The Eleventh Annual HealthGrades Hospital Quality in America Study." HealthGrades, Inc, October 2008. http://www.healthgrades.com/media/DMS/pdf/HealthGradesEleventhAnnualHospitalQualityStudy2008.pdf

[ii] "The Twelfth Annual HealthGrades Hospital Quality in America Study." HealthGrades, Inc, October 2009. http://www.healthgrades.com/media/DMS/pdf/HealthGradesTwelfthAnnualHospitalQualityStudy2009.pdf

[iii] "HealthGrades Eighth Annual Hospital Quality and Clinical Excellence Study." HealthGrades, Inc, January 2010. http://www.healthgrades.com/media/DMS/pdf/HospitalQualityClinicalExcellenceStudy2010.pdf

[iv] "The Eleventh Annual HealthGrades Hospital Quality in America Study." HealthGrades, Inc, October 2008. http://www.healthgrades.com/media/DMS/pdf/HealthGradesEleventhAnnualHospitalQualityStudy2008.pdf

[v] "The Twelfth Annual HealthGrades Hospital Quality in America Study." HealthGrades, Inc, October 2009. http://www.healthgrades.com/media/DMS/pdf/HealthGradesTwelfthAnnualHospitalQualityStudy2009.pdf

Final Recommendation:

HEALTH SERVICES COST REVIEW COMMISSION

Nurse Support Program II

FY 2011 COMPETITIVE INSTITUTIONAL GRANTS

May 5, 2010

This final recommendation is ready for Commission action.

INTRODUCTION

This paper presents the Evaluation Committee and HSCRC staff recommendations for the FY 2011 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 catalyst for this program was the finding that in fiscal year 2004, nearly 1,900 eligible nursing students were denied admission to Maryland nursing schools due to insufficient nursing faculty. In accordance with the Board of Nursing (BON) guidelines, nursing faculty are required to possess a Master's degree in nursing. 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, thereby, increasing the number of nurse graduates.

Following the approval of NSP II, the HSCRC assembled an advisory group 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 nursing schools. 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 also contracted with the Maryland Higher Education Commission (MHEC) to administer the NSP II grants because of its expertise in the administration of grants and scholarships.

In 2006, the Governor introduced legislation to create a nonlapsing fund, the Nurse Support Assistance Fund, so that funds collected through hospital rates under NSP II can be carried forward to cover awards in future years and could not be diverted to the State's general fund at the end of the fiscal year. The legislation also provided that a portion of the Competitive Institutional Grants and Statewide Initiatives be used to attract and retain minorities to nursing and nurse faculty careers.

The Competitive Institutional Grants are designed to increase the structural capacity of Maryland nursing schools through shared resources, innovative educational designs, and streamlining the process to produce additional nurse faculty.

The types of initiatives that qualify for Competitive Intuitional Grants are as follows:

1. Initiatives to expand Maryland's nursing capacity through shared resources by developing the synergies between provider and educational institutions.

2. Initiatives to increase Maryland's nursing faculty by streamlining the attainment for Master of Science in Nursing (MSN) degrees to increase nursing faculty.

3. Initiatives to improve nursing student retention by providing tutorial support to decrease attrition and increase National Council Licensure Examination (NCLEX) pass rates.

4. Initiatives to expand the pipeline for nursing faculty by providing incentives for nurses with either an Associate Degree in Nursing (ADN) or a Bachelor of Science in Nursing (BSN) to pursue an MSN, thereby increasing the pool of qualified nursing faculty.

5. Initiatives to increase capacity statewide by providing support for innovative programs that have a statewide impact on the capacity to train nurses or nursing faculty.

The Competitive Institutional Grant process requires an Evaluation Committee to review, deliberate, and recommend programs for final approval by the HSCRC. The proposals based on the criteria set forth in the request for Applications (RFA), the comparative expected outcomes of each initiative, the geographic distribution across the State, and the priority attached to attracting and retaining minorities in nursing and nursing faculty careers. The Statewide Initiatives are evaluated less formally and are awarded based on the qualifications and credentials of each applicant.

First and Second Rounds of NSP II Competitive Grants

During the first year, twenty-six proposals for the Competitive Institutional Grants were received. HSCRC staff, following an Evaluation Committee process, recommended seven programs, including 21 educational institutions and hospitals, for funding, which was approved by the Commission. MHEC staff conducted onsite visits to the organizations funded during the first year (FY 2007) of NSP II Competitive Institutional Grants and program directors summarized findings in an annual report[1].

[1] . Report is available on the HSCRC website (www.hscrc.state.md.us) under HSCRC Initiatives Nurse Support Programs

For the FY 2008 NSP II Competitive Grants, twenty-three proposals were received. The Evaluation Committee comprised of nursing administrators and educators recommended by the industry, a former Commissioner, and MHEC and HSCRC staff, reviewed all of the proposals and unanimously agreed to recommend nine of the twenty-three proposals that were submitted for FY2008. These nine proposals included consortia representing 25 colleges and universities, health systems and hospitals. The programs addressed the multiple aspects of the nursing shortage by accelerating the number of ADN graduates, encouraging the pipeline of ADN to BSN students, and creating pathways to nursing faculty positions through accelerated MSN and doctoral programs.

Third Round and Fourth Round of NSP II Competitive Grants

Four proposals were received for the FY 2009 NSP II Competitive Grant program. The Evaluation Committee recommended three of the four proposals. These three projects will bring a nursing program to a previously underserved county, will convert a doctoral nursing program to a hybrid distance learning format, and will bring graduate students into a certificate program in teaching nursing.

MHEC and the HSCRC staff took several steps to address the issues that may have contributed to the small number of proposals received last year for the NSP II Competitive Grant program. The deans and directors of the colleges and universities were surveyed to determine whether there were specific barriers, and many of their concerns were addressed. Additional technical assistance was provided last year to assist with proposal development. In addition, a survey was administered to solicit input on ways the program could be made more responsive and effective. Changes were made to the program as a result of this input, which led to many more proposal submissions for the fourth round.

For FY 2010, twenty-eight proposals were received. The review panel for this round consisted of eight reviewers, six of whom were returning evaluators. The Commission approved twenty-one of the twenty-eight proposals, which will result in an additional $20M in NSPII expenditures over five years. These projects incorporate initiatives to increase capacity, improve retention, and add new technology for simulation and instruction. Two of the approved proposals will provide statewide training in simulation for faculty and laboratory staff.

Fifth Round of NSP II Competitive Grants

Proposals for the fifth round of competitive funding for NSPII were due to the Maryland Higher Education Commission on March 1, 2010. Twelve proposals were received by that date. The proposals were mailed to the eight reviewers, all of whom were returning evaluators. This committee came together on March 26, 2010, and unanimously agreed to recommend eleven of the twelve proposals (attachment I). The proposals vary in their goals, with several that continue ongoing projects, several that support online education, two that lend support to new nursing programs, and two that will have Statewide ramifications in new faculty education and student retention. Twenty-four institutions in Maryland will be involved in the proposed three to five year grants.

RECOMMENDATIONS:

1. Commission Staff recommends the eleven Competitive Institutional Grants listed in Attachment I be approved by the Commission for FY 2011 in the funding amounts stated.

2. Staff recommends that the 60- day comment rule be waived so that this recommendation may be considered for final approval during this May Commission meeting.

NSPII FY11 PROPOSALS RECOMMENDED

NSP II	INSTITUTION	TITLE	PROJECT DIRECTOR	AFFILIATES	AMOUNT	DURATION
NSP II-11-101	Allegany College	Creating an On-Line LPN to RN Program	Dennise Exstrom	none	$ 846,140	5 years
NSP II-11-102	Anne Arundel Comm. College	New RN Delivery Model at AACC	Beth Anne Batturs	AAMC, BWMC, Doctors Comm. Hospital, Mercy Medical Center	$ 861,369	5 years
NSP II-11-103	Comm. College of Baltimore Co	Maximizing Nursing Retention & Success	Dr. Estelle Young	Franklin Square, Towson University	$ 1,186,118	4 years
NSP II-11-104	Frostburg State University	Improving Recruitment & Retention in Online RN to BSN Programs	Heather Gable	none	$ 273,967	3 years
NSP II-11-105	Johns Hopkins University	Creating an On-Line Nurse Educator Certificate Option	Drs. Anne Belcher & Pamela Jeffries	none	$ 458,000	3 years
NSP II-11-106	Johns Hopkins University	Increasing Bedside Nursing Capacity & Expertise: New Nurse Residency & Clinical Nurse Specialist Education	Elizabeth Jordan & Julie Stanik-Hutt	Bayview Med Ctr, Howard Co Hospital, Suburban Hospital, Johns Hopkins	$ 1,227,470	5 years
NSP II-11-107	Montgomery College	NSP II Nursing Enrichment Program (NEP)	Barbara Nubile	none	$ 403,182	3 years
NSP II-11-108	Morgan State University	Building Capacity and Diversity in Nursing Education: Launching a Doctoral Program in Nursing at an HBCU	Dr. Kathleen Galbraith	none	$ 749,087	3 years
NSP II-11-109	Sojourner Douglass College	S-DC Model for Increasing Capacity & Student Success	Dr. Maija Anderson	none	$ 1,520,046	5 years
NSP II-11-110	University of MD Baltimore	Meeting the Challenge: Statewide Initiatives for Nursing Faculty	Drs. Louise Jenkins & Carol O'Neil	none	$ 108,000	1 year
NSP II-11-112	Washington Adventist University	Who Will Teach?	Dr. Gina Brown	Dimensions Health System, Doctors Comm. Hospital	$ 998,196	5 years
	TOTAL				$ 8,631,575	

Attachment I

Maryland
Hospital Association

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Fax: 410-379-8239

April 23, 2010

Mr. Oscar Ibarra
Chief, Information Management and Program Administration
Health Services Cost Review Commission
4160 Patterson Avenue.
Baltimore, Maryland 21215

Dear Mr. Ibarra

On behalf of MHA and its 67 members, we wish to express our support for approval of the Draft Recommendations for the Nurse Support Program II (NSP II) FY 2011 Competitive Institutional Grants.

Since its establishment in 2005, the NSP II program has made important contributions to addressing the nurse shortage by supporting faculty education and program development. Among its important initiatives are providing new options for RNs to complete MSN and doctoral degrees preparing them to teach and provide primary care. NSP II grants also have helped to increase enrollment and retention of first time nurse graduates.

Our schools and hospitals are beginning to experience the success of the program. New faculty have been educated and hired by schools around the state. New and existing faculty are being educated to use sophisticated patient simulation equipment that enables students to have opportunity to apply nursing knowledge and skill and make more efficient use of time spent in direct patient care "clinicals." This in turn opens up more clinical time for additional students.

National interest in this unique program remains high. As you know, Dr. Janet Allen and I were recently approached by the National Council of State Boards of Nursing to write an article for their publication which targets Boards of Nursing across the country and we are working with Bob Murray and Steve Ports to develop it. In addition, NSP II Statewide Initiatives have provided tuition assistance and living expenses to a large number of students. Without the supplemental funds provided by NSP II, tuition assistance would surely have been less available in these difficult times.

- more -

The *Who Will Care?* (WWC) grant continues to build on NSP II success by providing complementary grants. WWC also provides technical assistance for grant writing, student retention strategies, and tracking grant outcomes. Taken together the two programs contribute importantly to meeting the growing statewide need for nurses anticipated over the next few years.

We look forward to working with you and the HSCRC commissioners and staff to assure continued full funding of this important initiative.

Sincerely,

Catherine Crowley

STATE OF MARYLAND
DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Donald A. Young, M.D.
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Deputy Director
Research and Methodology

TO: **Commissioners**

FROM: **Legal Department**

DATE: **April 7, 2010**

SUBJECT: **Hearing and Meeting Schedule**

Public Session

May 5, 2010	**Time to be determined, 4160 Patterson Avenue, HSCRC Conference Room**
June 9, 2010	**Time to be determined, 4160 Patterson Avenue, HSCRC Conference Room**

Please note, Commissioner packets will be available in Commission offices at 8:00 a.m.

The agenda for the Executive and Public Sessions will be available for your review on the Commission's Web Site, on the Monday before the Commission Meeting. To review the agenda, visit the Commission's web site at http://www.hscrc.state.md.us