

STATE OF MARYLAND  
DEPARTMENT OF HEALTH AND MENTAL HYGIENE



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**HEALTH SERVICES COST REVIEW COMMISSION**

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*Post-meeting Documents*  
*from the*  
**496th MEETING OF THE HEALTH SERVICES COST REVIEW COMMISSION**  
**April 10, 2013**

**EXECUTIVE SESSION**

**12:15 p.m.**

**1. Waiver Update**

**PUBLIC SESSION**

**1:00 p.m.**

**1. Review of the Minutes from the Executive Sessions of February 6, 14, and 21, and March 6, 2013 and Public Meeting Minutes from February 6, 2013**

**2. Ratify Comfort Order from March 6 Executive Session**

**3. Executive Director's Report**

**4. Process for FY 2014 Update Factor Discussions**

**5. Docket Status – Cases Closed**

2168R – Garrett County Memorial Hospital  
2193 R – Adventist Behavioral Health – *\*Staff Update*  
2200A – MedStar Health  
2203N – Washington Adventist Hospital

**6. Docket Status – Cases Open**

2201A – University of Maryland Medical Center  
2202A – University of Maryland Medical Center  
2204N – St. Agnes Hospital  
2205N – Harbor Hospital Center

**7. Draft Recommendation for Addressing Federal Sequestration  
- MHA's Position**

8. **Draft Recommendations for Modifications to Admission-Readmission Revenue (ARR) Structure**
  - **ARR Figures Presentation**
9. **Status Report on ARR Interventions and Outcomes**
  - **ARR Year 1 Interventions Results Presentation**
10. **Final Recommendation on Psychiatric Clinic Relative Value Units - *approved***
11. **Draft Recommendations for Continued Support of the Maryland Patient Safety Center**
12. **Consideration of Two Requests for Confidential Data:**
  - a. **CRISP – *adopted as amended***
  - b. **Department of Health and Human Services - *approved***
13. **Legislative Report**
14. **Hearing and Meeting Schedule**

**Executive Session  
of the  
Health Services Cost Review Commission**

**MINUTES**

**February 6, 2013**

Upon motion made in public session, Chairman Colmers called the meeting to order at 2:35 p.m.

The meeting was held under the authority of § 10-508 of the State-Government Article.

In attendance, in addition to Chairman Colmers, were Commissioners Bone, Jencks, Keane, Loftus, Mullen and Wong.

**Item**

The Commission discussed personnel matters.

The Executive Session was adjourned at approximately 3:30 p.m.

**Executive Session  
of the  
Health Services Cost Review Commission**

**MINUTES**

**February 14, 2013**

Upon motion made, Chairman Colmers called the phone conference Executive Session to order at 4:03 p.m.

The meeting was held under the authority of § 10-508 of the State-Government Article.

Participating, in addition to Chairman Colmers, were Commissioners Bone, Jencks, Keane, Loftus, Mullen, and Wong.

Patrick Redmon, Mary Pohl, Sule Calikoglu, Jerry Schmith, and Dennis Phelps participated representing staff.

Also participating were Leslie Schulman and Stan Lustman, Commission Counsel.

**Item**

Dr. Redmon provided the Commissioners with an update on the status of the effort to modernize the Medicare waiver.

The Executive Session was adjourned at approximately 5:00 p.m.

**Executive Session  
of the  
Health Services Cost Review Commission**

**MINUTES**

**February 21, 2013**

Upon motion made, Chairman Colmers called the phone conference Executive Session to order at 6:36 p.m.

The meeting was held under the authority of § 10-508 of the State-Government Article.

Participating, in addition to Chairman Colmers, were Commissioners Bone, Jencks, Keane, Loftus, Mullen, and Wong.

Patrick Redmon, Steve Ports, Sule Calikoglu, Jerry Schmith, and Ellen Englert participated representing staff.

Also participating was Stan Lustman, Commission Counsel.

**Item**

Dr. Redmon reviewed the application model for modernizing the Medicare waiver discussed with the Centers for Medicare and Medicaid Services (CMS) on February 20, 2013.

The Executive Session was adjourned at 7:51 p.m.

**Executive Session  
Of the  
Health Services Cost Review Commission**

**MINUTES**

**March 6, 2013**

Upon motion made, Chairman Colmers called the phone conference Executive Session to order at 12:00 noon.

The meeting was held under the authority of § 10-508 of the State-Government Article.

Participating, in addition to Chairman Colmers, were Commissioners Bone, Keane, Mullen and Wong.

Patrick Redmon, Mary Pohl, Jerry Schmith, and Steve Ports participated representing staff.

Also participating were Leslie Schulman and Stan Lustman, Commission Counsel.

**Item 1**

The Commission unanimously approved the Comfort Order request from MedStar Health, Inc., relating to the Southern Maryland Hospital Project. Representing MedStar Health was Mr. Joel Bryan, Vice President and Corporate Treasurer. Ratification of this action will take place at the next Commission public meeting.

**Item 2**

Dr. Redmon provided the Commissioners with an update on the status of the application for modernizing the Medicare waiver.

**Item 3**

Chairman Colmers noted the need to discuss the implications of sequestration on the provision of hospital care in Maryland at the forthcoming public meeting.

The Executive Session was adjourned at 12:51 p.m.

**MINUTES OF THE**  
**495th MEETING OF THE**  
**HEALTH SERVICES COST REVIEW COMMISSION**

**February 6, 2013**

Chairman John Colmers called the meeting to order at 1:11 p.m. Commissioners George H. Bone, M.D., Stephen F. Jencks, M.D., Jack C. Keane, Thomas R. Mullen, Bernadette C. Loftus, M.D., and Herbert S. Wong, Ph.D. were also present.

**REPORT OF THE EXECUTIVE SESSION OF FEBRUARY 6, 2013**

Dennis Phelps, Associate Director-Audit & Compliance, summarized the minutes of the February 6, 2013 Executive Session.

**COMFORT ORDER – UNIVERSITY OF MARYLAND MEDICAL SYSTEM**

The Commission voted unanimously to ratify the Comfort Order for the University of Maryland Medical System approved in Executive Session.

**ITEM I**  
**REVIEW OF THE MINUTES OF THE EXECUTIVE SESSION AND THE PUBLIC**  
**MEETING OF JANUARY 9, 2013**

The Commission voted unanimously to approve the minutes of the January 9, 2013 Executive Session and the Public Meeting.

**ITEM II**  
**EXECUTIVE DIRECTOR'S REPORT**

Patrick Redmon, Ph.D., Executive Director, reported that Monitoring Maryland Performance (MMP) indicated that the rate of growth in charge per case (CPC) decreased by 3.30% for the month of November 2012 versus November 2011. For the twelve months ending October 2012 versus the same period in 2011, CPC decreased 0.87%; inpatient revenue decreased 2.07%; the number of inpatient cases declined by 3.45%; outpatient revenue increased 14.67%; and total gross revenue increased 3.84%.

Dr. Redmon noted that based on the latest waiver letter for the year ending September 30, 2011, the relative waiver test cushion stood at 2.43%. Staff had expected an adjustment to the test for cases where Medicare is the secondary payer; however, the adjustment was not made in this letter. It would be included in the next waiver letter.

**ITEM III**  
**DOCKET STATUS CASES CLOSED**

2190A – St. Mary’s Hospital	2194A – Johns Hopkins Health System
2195A - Johns Hopkins Health System	2196A – Harbor Hospital
2197A - Johns Hopkins Health System	2198A – Johns Hopkins Health System
2199A - Johns Hopkins Health System	

**ITEM IV**  
**DOCKET STATUS CASES OPEN**

**Garrett County Memorial Hospital -2168R**

On July 6, 2012, Garrett County Memorial Hospital filed a full rate application requesting overall rate increases of \$2,378,171 over three years. The requested rate increases were exclusively for capital and related to a \$23.5 million expansion project of its new wing and for other renovations.

Based on the results of the HSCRC’s rate methodology for capital and the Hospital’s unique circumstances, staff recommended:

- 1) That the Hospital’s Total Patient Revenue cap be adjusted by \$2,378,171 over three years beginning FY 2014;
- 2) That these adjustments be contingent on the approval of the Certificate of Need before the Maryland Health Care Commission without any material changes; and
- 3) That any material difference between the Hospital’s assumed interest rate and the actual interest rate secured be appropriately adjusted for.

The Commission voted unanimously to approve staff’s recommendation.

**Adventist Behavioral Health – 2193R**

On August 30, 2012, Adventist Behavioral Health submitted a full rate application requesting a 23.81% (\$6.4 million) rate increase effective October 1, 2012.

Based on its analysis, staff recommended that the Hospital be granted a 4.33% increase to its rate structure effective October 1, 2012. In addition, staff recommended that it be allowed to determine the amount of uncompensated care to be included in rates to mitigate the impact of the reduction in Purchase of Care funds provided to the Hospital by the Department of Health and Mental Hygiene. This amount will allow for the provision of care to patients not eligible for Medical Assistance who were previously cared for in State psychiatric hospitals.



The Commission voted unanimously to approve staff's recommendation.

### **MedStar Health – 2200A**

MedStar Health filed an application with the HSCRC on January 4, 2013 on behalf of Union Memorial Hospital requesting approval to continue to participate in a global rate arrangement for orthopedic services with the NFL Player Joint Replacement Benefit Plan for a period of one year beginning February 1, 2013.

The staff recommended that the Commission approve MedStar Health's request for continuation of the arrangement for a one year period commencing February 4, 2013, and this approval be contingent upon the execution of the standard Memorandum of Understanding ("MOU").

The Commission voted unanimously to approve staff's recommendation.

### **ITEM V**

#### **STATUS REPORT ON DEVELOPMENT OF ADMISSION-READMISSION REVENUE AND ONE DAY STAY POLICY RECOMMENDATIONS**

Dr. Redmon presented a report describing the status of staff's work to revise the Admission-Readmissions Revenue (ARR) program (see "Shared Savings in the Admission Readmissions Program with Modifications for Short Stay Cases" on the HSCRC website).

Dr Redmon stated that the ARR program is required to meet or exceed the results of the Centers for Medicare and Medicaid Services' (CMS') program for readmissions in order for Maryland to be exempt from the program. According to CMS, in order to maintain the exemption, the ARR program will have to share savings with the payers.

Dr Redmon disclosed that in the hospital and payer workgroup meetings, staff discussed the following policy options: 1) the sharing of ARR savings from reduced readmissions, scaling, the performance standard approach, and a continuous improvement approach; 2) the need to reincorporate short stay cases into Charge per Episode targets; 3) the opportunity to make the appropriate adjustments to the current logic for exclusions and outliers; and 4) approval to apply the FY 2012 case mix adjustment for one day stays on a two-year look-back basis in FY 2014 rather than in FY 2013.

Dr. Redmon stated that staff will continue to work with the hospital and payer groups to model the policy options, and that a preliminary recommendation will be presented at the March public meeting.

**ITEM VI**  
**LEGAL REPORT**

**Regulations**

**Final Adoption**

Uniform Accounting and Reporting System for Hospitals – COMAR 10.37.01.03 & .06

The purpose of this action is to increase the civil penalties associated with the failure to timely file required reports with the Commission.

The Commission voted unanimously to approve the final adoption of this proposed regulation.  
Rate Application and Approval Procedures – COMAR 10.37.10.06

The purpose of this action is to increase the monetary fines the Commission may impose for those hospitals that fail to comply with the Commission’s alternative rate methodology reporting requirements.

The Commission voted unanimously to approve the final adoption of this proposed regulation.

Cross-Subsidization –COMAR 10.37.12.02 & .03

The purpose of this action is to increase the monetary penalties the Commission may impose for those hospitals that fail to comply with the Commission’s fixed-price contract reporting requirements.

The Commission voted unanimously to approve the final adoption of this proposed regulation.

**ITEM VII**  
**LEGISLATIVE REPORT**

Steve Ports, Principal Deputy Director-Policy & Operations, presented a summary of the legislation of interest to the HSCRC (see “Legislative Update-February 6, 2013” on the HSCRC website).

The bills included: 1) Senate Bill/House Bill 373 – Outpatient Services –Off-site Facility – Rate Regulation; 2) Senate Bill – Hospital – Notice to Outpatients \_ Outpatient Status and Billing Implications; 3) Senate Bill 274/House Bill 228 – Maryland Health Progress Fund; and 4) Senate Bill 127/House Bill 102 – Budget Reconciliation and Financing Act of 2013.

**ITEM VIII**  
**HEARING AND MEETING SCHEDULE**

March 6, 2013

Time to be determined, 4160 Patterson Avenue,  
HSCRC Conference Room

April 10, 2013

Time to be determined, 4160 Patterson Avenue,  
HSCRC Conference Room

There being no further business, the meeting was adjourned at 2:26 p.m.

**EXECUTIVE DIRECTOR'S REPORT  
APRIL 10, 2013**

Monitoring Maryland Performance

For Year Ending February 2013

- Charge per Case decreased 0.52%
  - For the month of February 2013 versus February 2012, CPC increased 0.60%
  - For YTD ending February 2013 versus the same time period in 2012, CPC decreased 0.73%
- Cases (admissions + new born) decreased 3.68%
- Inpatient revenue decreased 4.18%
- Outpatient revenue increased 12.75%
- Total gross revenue increased 1.89%
  - For YTD ending February 2013 versus the same period in 2012, total gross revenue increased 1.42%.

Financial Condition

Data are available for profits for the eight months through February 2013 compared to the eight months through February 2012. For year-to-date ending February 2013, average operating profits for acute care hospitals was 0.85 percent. The median hospital had an operating profit of 0.98 percent, with a distribution as follows:

- 25<sup>th</sup> percentile at -1.61 percent
- 75<sup>th</sup> percentile at 5.10 percent

According to hospital representatives, an important factor to consider in these numbers is that Meaningful Use funds are included in these numbers as operating revenue and may overstate the usual operating revenue.

Progress on Demonstration Request

The Governor submitted the State's Model Demonstration proposal to the Federal government on March 26, 2013. Discussions continue with CMMI around details of the proposal.

IN RE: THE FULL \* BEFORE THE HEALTH SERVICES  
RATE REVIEW OF \* COST REVIEW COMMISSION  
ADVENTIST BEHAVIORAL HEALTH \* DOCKET: 2012  
 \* FOLIO: 1983  
ROCKVILLE, MARYLAND \* PROCEEDING: 2193R

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STAFF UPDATE

April 10, 2013

## **I. THE HOSPITAL REQUEST AND JUSTIFICATION**

On August 30, 2012, Adventist Behavioral Health (“Hospital,” or “ABH”) submitted a full rate application to the Health Services Cost Review Commission. The Hospital requested a 23.81% (\$6,422,580) increase to its approved permanent unit rates effective October 1, 2012. Of this request, 16.38% is based on a Level 1 cost comparison to Sheppard Pratt and Brooklane. Level I cost includes all direct and overhead cost. It does not include the cost of capital, other financial considerations, or the cost associated with providing mark-up. The Hospital also requested a 7.43% increase to cover the estimated additional uncompensated care (UCC) due to the elimination of Purchase of Care (POC) funds provided by the State’s Mental Hygiene Administration (SMHA)

## **II. FINAL STAFF RECOMMENDATION ON FEBRUARY 6, 2013**

Based on its analysis, staff recommended that the Hospital be granted a 4.33% increase to its rate structure effective October 1, 2012.

Staff further recommended that it be allowed to work with the Hospital in order to provide a reasonable amount in rates each year for uncompensated care after consideration of the impact of the State's change to its POC funds.

The Commission approved the recommendation but asked that the staff report to it the results of the allowed change for UCC.

## **III. FINAL UCC ADJUSTMENT**

The staff has met with Hospital representatives on numerous occasions over the last two months. Staff has also had two conversations with Mr. Brian Hepburn, Executive Director of SMHA, during that time. Mr. Hepburn indicated that SMHA had \$500,000 included in its

budget to pay ABH for POC patients for Fiscal Year ending June 30, 2013. Total charges for all POC patients are approximately \$3.5 to \$4.2 million per year at ABH. Payments from SMHA to Adventist Behavioral Health for POC patients ran out at approximately the midpoint of August 2012. However, Mr. Hepburn also indicated that Medicaid would begin paying private psychiatric hospitals 94% of Commission approved charges rather than 84% of Commission approved charges for FY2013. These changes generated approximately \$1.6 million for additional uncompensated care for ABH's most recent rate year (RY), which ended on December 31, 2012.

After further discussions with Mr. Hepburn, staff discovered that while some dollars were included in the Governor's budget to cover POC patients for FY2014, the State legislature approved removal of these funds from the Governor's budget. The Governor's budget also included the increase to reimbursement of 94% of charges for FY 2014.

Analysis of ABH's rates for RY2013 showed that UCC would have increased from 4.02% to 5.60% based on the Hospital's actual 3 year average for FY 2009, FY2010, and FY2011. Inclusion of the expected increase in UCC for the elimination of POC payment would increase the UCC to an estimated 14.77% for RY2013. This increase in UCC from 4.02% to 14.77%, coupled with the increased reimbursement level of 94% from 84% for Medicaid patients will increase the markup in rates by 7.05% for FY2013. Staff believes that 7.05% is a reasonable adjustment to provide to ABH for FY2013, in addition to the 4.33% previously approved.

Finally, Mr. Hepburn stated that he believed that a majority of the POC patients would be covered in the future by the Affordable Care Act, either by the expanded Medicaid requirement

or by providing subsidized insurance through the Insurance Exchange. However, the coverage of these POC patients would be incremental over a period of time. Therefore, staff further requests that it be allowed to continue to work with the private psychiatric hospitals in order to provide reasonable changes to rates as these changes occur in the future.



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

AS OF APRIL 1, 2013

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

Docket Number	Hospital Name	Date Docketed	Decision Required by:	Rate Order Must be Issued by:	Purpose	Analyst's Initials	File Status
2201A	University of Maryland Medical Center	3/1/2013	N/A	N/A	ARM	DNP	OPEN
2202A	University of Maryland Medical Center	3/1/2013	N/A	N/A	ARM	DNP	OPEN
2204N	St. Agnes Hospital	3/5/2013	4/4/2013	8/2/2013	HYP	CK	OPEN
2205N	Harbor Hospital Center	3/22/2013	4/21/2013	8/19/2013	ORC	CK	OPEN

NONE

PROCEEDINGS REQUIRING COMMISSION ACTION - NOT ON OPEN DOCKET

**IN RE: THE APPLICATION FOR  
ALTERNATIVE METHOD OF RATE  
DETERMINATION  
UNIVERSITY OF MARYLAND  
MEDICAL CENTER \*  
BALTIMORE, MARYLAND**

**\* BEFORE THE MARYLAND HEALTH  
\* SERVICES COST REVIEW  
\* COMMISSION  
\* DOCKET: 2013  
\* FOLIO: 2011  
\* PROCEEDING: 2201A**

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**Staff Recommendation**

**April 10, 2013**

## **I. INTRODUCTION**

The University of Maryland Medical Center (“the Hospital”) filed an application with the HSCRC on March 1, 2013 for an alternative method of rate determination, pursuant to COMAR 10.37.10.06. The Hospital requests approval from the HSCRC to continue to participate in a global rate arrangement for solid organ and blood and bone marrow transplant services with LifeTrac, Inc. Network for a period of one year, effective April 1, 2013.

## **II. OVERVIEW OF APPLICATION**

The contract will continue to be held and administered by University Physicians, Inc. (UPI). UPI will manage all financial transactions related to the global price contract including payments to the Hospital and bear all risk relating to regulated services associated with the contract.

## **III. FEE DEVELOPMENT**

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

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

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

## **V. STAFF EVALUATION**

Staff reviewed the experience under this arrangement for the last year and found it to be favorable. After review of the application and additional information provided by the Hospital,

staff believes that the Hospital can continue to achieve favorable performance under this arrangement.

## **V I. STAFF RECOMMENDATION**

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

IN RE: THE APPLICATION FOR  
ALTERNATIVE METHOD OF RATE  
DETERMINATION  
UNIVERSITY OF MARYLAND  
MEDICAL CENTER  
BALTIMORE, MARYLAND

\* BEFORE THE MARYLAND HEALTH  
\* SERVICES COST REVIEW  
\* COMMISSION  
\* DOCKET: 2013  
\* FOLIO: 2012  
\* PROCEEDING: 2202A

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Staff Recommendation

April 10, 2013

## I. INTRODUCTION

On March 1, 2013, the University of Maryland Medical Center (“UMMC,” or the “Hospital”) filed an application with the Commission for an alternative method of rate determination, pursuant to COMAR 10.37.10.06. The Hospital has requested approval to continue to participate in a global rate arrangement with the Gift of Life Foundation (GOL) for the collection of bone marrow and peripheral blood stem cells from GOL on an outpatient basis, donors to facilitate Hematopoietic Stem Cell transplants into unrelated GOL recipients. The Hospital seeks approval of the arrangement for one year beginning April 1, 2013.

## II. OVERVIEW OF APPLICATION

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

## III. FEE DEVELOPMENT

The hospital portion of the global rates for the collection of bone marrow and peripheral blood stem cells has been updated and is based on actual experience for cases performed at UMMC. The remainder of the global rates comprised of physician services has been negotiated with the participating physician group.

## IV. IDENTIFICATION AND ASSESSMENT OF RISK

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

## V. STAFF EVALUATION

Staff found that the Hospital’s experience under this arrangement for the last year was favorable.

## VI. STAFF RECOMMENDATION

After reviewing the revised global rates and recognizing the efforts to reduce hospital charges through utilization reduction, staff recommends that the Commission approve the Hospital's request for an alternative method of rate determination for the collection of bone marrow and peripheral stem cells for one year commencing April 1, 2013. UMMC will be required to file a renewal application for review to be considered for continued participation in the arrangement.

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

# Impact of Sequestration and Options for the HSCRC

## Draft Recommendation

April 10, 2013

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

*This is a draft recommendation. No action is required. Please provide comments to Patrick Redmon at [patrick.redmon@maryland.gov](mailto:patrick.redmon@maryland.gov) by April 22, 2013 for full consideration.*



## Sequestration: What is it?

"Sequestration" is a process of automatic, largely across-the-board spending reductions under which budgetary resources are permanently canceled to enforce certain budget policy goals. It was first authorized by the Balanced Budget and Emergency Deficit Control Act of 1985 (BBEDCA, Title II of P.L. 99-177, commonly known as the Gramm-Rudman-Hollings Act). Recently, it was included as an enforcement tool in the Budget Control Act of 2011 (BCA, P.L. 112-25).

Two provisions were included in the BCA that results in automatic sequestration:

1. **Establishment of discretionary spending limits, or caps, for each of FY2012-FY2021.** If Congress appropriates more than allowed under these limits in any given year, sequestration would cancel the excess amount.
2. **Failure of Congress to enact legislation developed by a Joint Select Committee on Deficit Reduction ("Supercommittee"), by January 15, 2012, to reduce the deficit by at least \$1.2 trillion.** The BCA provided that such failure would trigger a series of automatic spending reductions, including sequestration of mandatory spending in each of FY2013-FY2021, a one-year sequestration of discretionary spending for FY2013, and lower discretionary spending limits for each of FY2014-FY2021.

Because the Supercommittee failed to achieve its goal, the sequestration was scheduled to occur starting in January 2013 and to cover the period through 2021 (Center for Budget and Policy Priorities). Legislation was enacted on January 2, however, that delayed the effective date until March 1, 2013 (P.L. 112-240). The automatic spending reductions affect both mandatory and discretionary spending, and are equally divided between defense and nondefense spending (Congressional Research Service, 2013).

## Sequestration Effect on Medicare

Medicare spending (excluding low-income and catastrophic subsidies for Part D and the qualifying individual program) is subject to sequestration, but the cut to Medicare providers and plans cannot exceed 2 percent (approximately \$11 billion in 2013), and Medicare beneficiaries will not face any direct cut. The sequester cuts to certain other mandatory health programs, such as Indian Health, are also capped at 2 percent (bipartisanpolicy.org).

## Effect of Medicare Payments Nationally

For payments made under Medicare Parts A and B, the percentage reductions are to be made to individual payments to providers for services (e.g., hospital and physician services). In the case of Parts C and D, reductions are to be made to the monthly payments to the private plans that administer these parts of Medicare. Reductions are to be made at a uniform rate and are not to exceed 2 percent. CBO estimates that Medicare benefit spending will be reduced by about \$99.3 billion over the nine-year sequestration period (Congressional Research Service, 2013).

The budgetary baseline that must be used in implementing a sequestration has special implications with regard to Medicare. For direct spending, the baseline is to be calculated by assuming that the laws

providing or creating direct spending will operate in the manner specified, and that funding for entitlement authority is adequate to make all required payments. Specifically, CBO's March 2012 projections of Medicare spending incorporated the assumption that Medicare spending would be constrained beginning in 2013 by the sustainable growth rate (SGR) mechanism used to calculate the fees paid for physicians' services. Those fees were to have been reduced by about 27 percent beginning in January 2013 and by additional amounts in subsequent years. However, the American Taxpayer Relief Act of 2012 (P.L. 112-240) overrode the scheduled reduction for FY2013; thus, spending for Medicare will be greater than the amounts projected in the baseline. CBO estimated a 10-year cost of freezing payments at current levels at close to \$300 billion for 2012-2021; if payments were increased by a medical inflation factor, the cost could be even higher (Congressional Research Service, 2013).

### **Effect of Medicare Payments in Maryland**

The last sequestration, due to the BBEDCA of 1985, reduced Medicare payments to hospital providers 2.092 percent from October 1989 through December 1989. The Medicare fiscal intermediary was to reduce charges by the full amount of the Medicare beneficiary's co-insurance and deductible (15 percent) and pay the remaining charges less 2.092 percent. In 1989, to recognize the reduction in Medicare revenue to the hospitals, the Commission voted to increase all rates by 0.8 percent and apply this adjustment at the time of their next inflation adjustment as one-time money.

Today, the Commission is again faced with the question of how to address Medicare sequestration charges in Maryland. There are several options available to the Commission. The next section outlines three possible options.

In this recommendation, we treat the options for the remainder of FY2013 only. While the duration of the sequester is uncertain at this stage, the immediate impact is for the current fiscal year and the immediate policy necessity is to address that specific issue. Going forward, the impact of the sequester will be addressed as part of the update factor discussion for proposed stub period from July 1 – December 30, 2013 and for the second half of the fiscal year, presuming approval of the State's proposed Demonstration Model.

### **Waiver Modeling**

Staff modeled three possible options (Table 1) and their effect on the waiver cushion. The models below assume the following for FY2014:

- 0% update
- 0.22% increase to CPC due to the TPR methodology
- 0.58% increase to CPC due to the ARR methodology
- 0.20% increase to CPC due to the full rate reviews and capital

### ***Option 1: Hospitals held harmless***

For this option, the Commission would treat the revenue lost from the sequestration as a one-time unusual expense. Hospital rates would reflect an increase of 0.83 percent for the remainder of the fiscal

year (April - June). If prices and volume remain constant, the resulting waiver cushion for YE J13 is forecasted to be 4.04 percent.

For FY2014 and forward, the sequester would be considered as part of the Commission’s update factor consideration, taking into account the affordability of hospital services, the Medicare Waiver, and the financial condition of the State’s hospitals. If the Commission were to continue to hold the hospitals harmless to the impact of sequestration in FY2014, we estimate the waiver cushion as 1.02 percent.

***Option 2: 50/50 Split***

For this option, the Commission would split the incidence of the sequestration between payers and hospitals. In this instance, half of the sequestered revenue would be treated as a one-time expense and be put into rates, resulting in a 0.41 percent increase to all rates for the remainder of the fiscal year (April - June). If prices and volume remain constant, the resulting waiver cushion for YE J13 is forecasted to be 4.15 percent.

For FY2014 and forward, the sequester would be considered as part of the Commission’s update factor consideration, taking into account the affordability of hospital services, the Medicare Waiver, and the financial condition of the State’s hospitals. If the Commission were to continue the 50/50 split in FY2014, we estimate the waiver cushion as 1.54 percent.

***Option 3: Payers held harmless***

For this option, the Commission would require hospitals to experience the full reduction to Medicare payments. If prices and volume remain constant, the resulting waiver cushion for YE J13 is forecasted to be 4.26 percent.

For FY2014 and forward, the sequestration would be considered as part of the Commission’s update factor consideration, taking into account the affordability of hospital services, the Medicare Waiver, and the financial condition of the State’s hospitals. If the Commission were to continue to hold the payers harmless to the impact of sequestration in FY2014, we estimate the waiver cushion as 2.06 percent.

**Table 1: Options to Address Sequestration in Rates**

	Medicare Payment Reduction to be Included in Rates	Annualized Impact on Rates	Waiver Cushion	
			YE J13 with April - June Implementation of the Policy Option	YE J14 with Continued Implementation of the Policy Option
<b>Option 1</b> : Hospitals held harmless	2.00%	0.83%	4.04%	1.02%
<b>Option 2</b> : 50/50 split between payers and hospitals	1.00%	0.41%	4.15%	1.54%
<b>Option 3</b> : Payers held harmless	0.0%	0.00%	4.26%	2.06%

## Discussion

There are several items to consider in deciding which of the three above options are appropriate. They include: financial condition of hospitals; affordability for consumers, private insurers, and taxpayers; and the status of the Medicare waiver.

For FY2013, the Commission approved an inpatient rate reduction of 1.25 percent with a budget for 0.25 percentage points for case mix growth industry wide and an outpatient increase of 2.59 percent. The overall impact on industry revenue at last year's volumes was an estimated 0.3 percent. The cumulative year to date revenue growth as of February 2013 is 1.42 percent.<sup>1</sup> Currently, the median total operating margin is 0.85 percent, with 30 hospitals showing positive total operating margins. Average profitability is down from the same period last year, when total operating margins were running at about 2.6 percent. This year hospital total profits are 3.63 percent, up from 1.98 percent for the same period last year; 37 hospitals show positive total profits.<sup>2</sup>

Outside of Maryland hospitals may be able to shift some of these revenue losses to private payers, depending on their relative market power, thus offsetting some of the revenue losses. Maryland hospitals cannot do that under the State's rate-setting system. In the short run, however, hospitals nationally may have to bear the incidence of this sequestration until contracts can be renegotiated, even if the losses can eventually be shifted.

Furthermore, while the status of the current waiver is better than anticipated at this time last year, the margin is still small compared to historic levels. Any partial sharing between hospitals and payers will erode that margin.

The State has been in extensive negotiations for a modernized waiver, and an important issue is the spending for Medicare and Medicaid in Maryland under the all payer system versus the rest of the nation. Action to restore the sequestered funds to hospital rates this year could be viewed negatively as part of federal consideration of the State's current request.

Maryland's system is all-payer. All participants pay Commission-approved rates, and the Commission sets rates that are adequate for efficient and effective hospitals. The extraordinary federal budget actions are a departure from the all-payer concept. We believe a reasonable approach is to consider these costs as part of the update factor for FY2014.

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<sup>1</sup> Cumulative annual growth compares July 2012 to February 2013 growth to July 2011 to February 2012 growth.

<sup>2</sup> Profitability numbers from the consolidated unaudited financial statements with data as of February 2013.

## **Staff Recommendation**

- Recommendation 1:** The Commission will make no change to hospital rates for Fiscal Year 2013 in response to the federal sequestration for Medicare.
- Recommendation 2:** The Commission will consider total revenue needs for hospitals as part of the consideration for Fiscal Year 2014, with the shortfall due to sequestration as part of the consideration in the discussions for a stub period for July1 – December 31, 2013 and rates for the balance of the year, assuming approval of the proposed demonstration model that has been submitted to CMS/CMMI.



Maryland  
Hospital Association

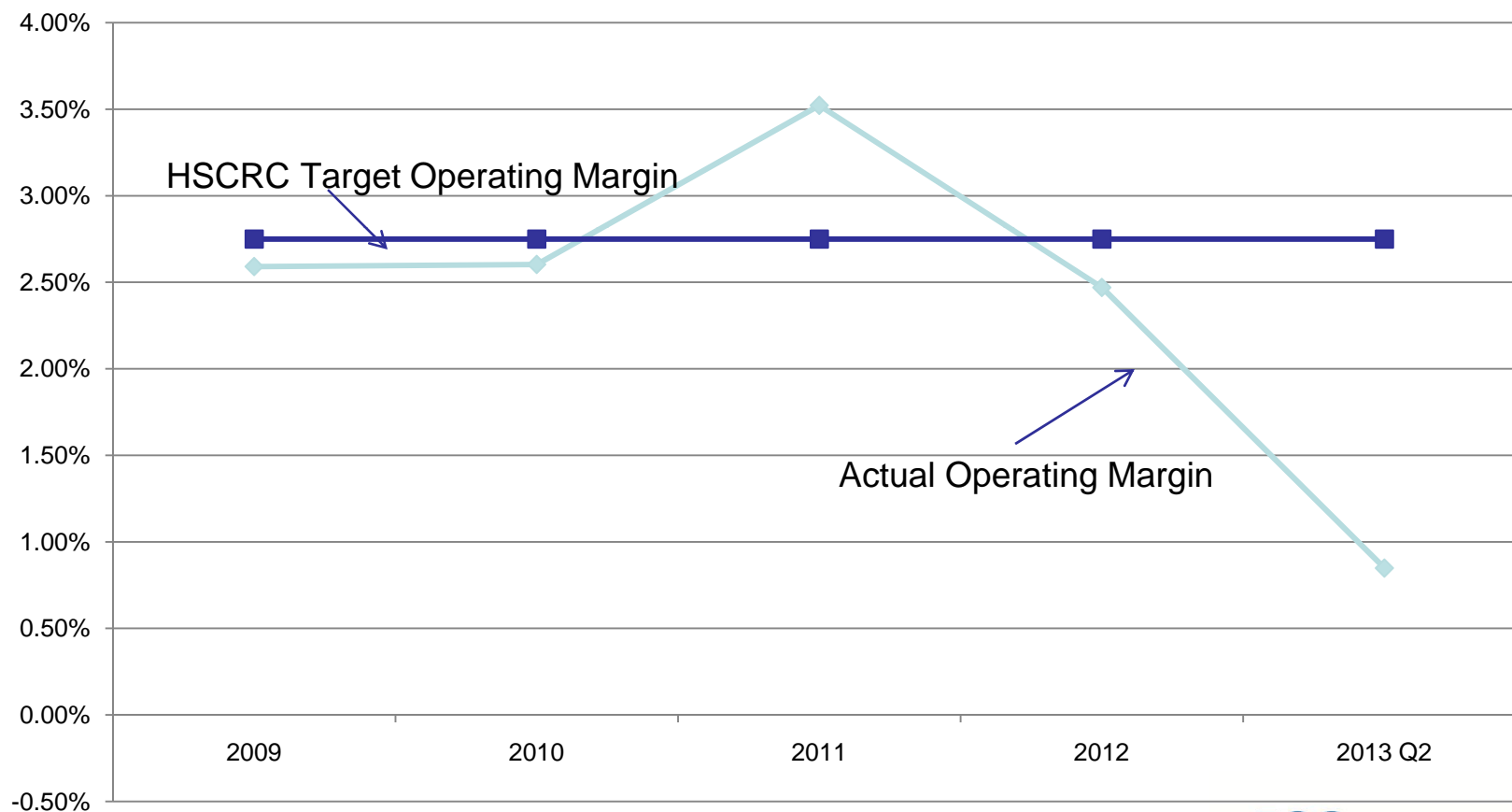
## **MHA's Position on Sequester Action by the Health Services Cost Review Commission**

The Maryland Hospital Association (MHA) opposes the staff recommendation to have hospitals shoulder the full burden of the impact of the federal sequester for the balance of FY 2013.

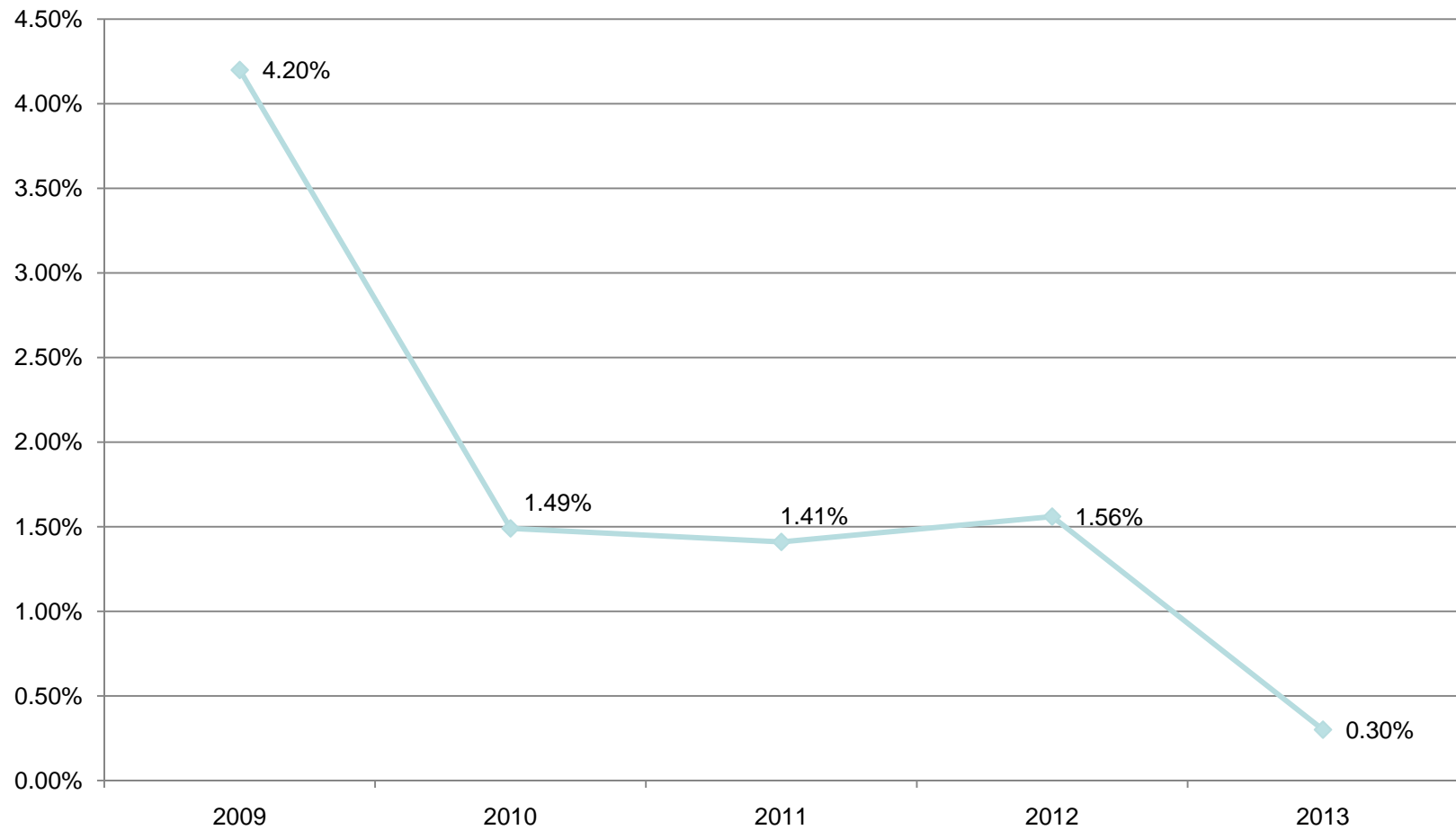
We oppose this action for the following reasons:

- **This action is inconsistent with all past sequester actions taken by the HSCRC** – In separate actions taken on July 1, 1986; February 9, 1988; and, December 1, 1989, the HSCRC voted to offset the impact of federal sequesters, placing the full impact in hospital rates;
- **This action can be temporary** – Similar to its prior actions, the HSCRC could act to implement the rate increase for the time period that the sequestration is in effect, thereby limiting the long-term impact to the public of increases in rates;
- **Hospitals' financial stability is already in serious jeopardy** – For the past five years, hospitals' financial conditions have fallen well below standards set by the HSCRC. Combined with the historically low rate update of 0.3% for FY 2013, margins for the first six months of this year have declined to 0.8%, with declines in both regulated and total net operating margins. Having hospitals absorb all of the impact of the sequester will essentially wipe out this margin for most hospitals for FY 2013;
- **This action is inconsistent with the HSCRC's statutory mandate** – The HSCRC is required to set reasonable rates that will permit hospitals to provide, on a solvent basis, efficient and effective services;
- **Under the staff proposal, Maryland's hospitals would be disproportionately impacted by the effect of the federal sequester** – In our all-payer system, the only way that hospitals would have the same flexibility, as hospitals in the rest of the country have to respond to the sequester, is through putting the impact of the sequester in hospital rates; and,
- **The projected waiver cushion should not be a factor in this decision** – The current waiver cushion is in a better position today, and there are potential additional actuarial corrections that can further improve that waiver cushion. As such, the small negative impact that would result from placing the full impact of the sequester in rates would still leave the current waiver in a positive position.

# Hospital Operating Margins Below Targeted Levels

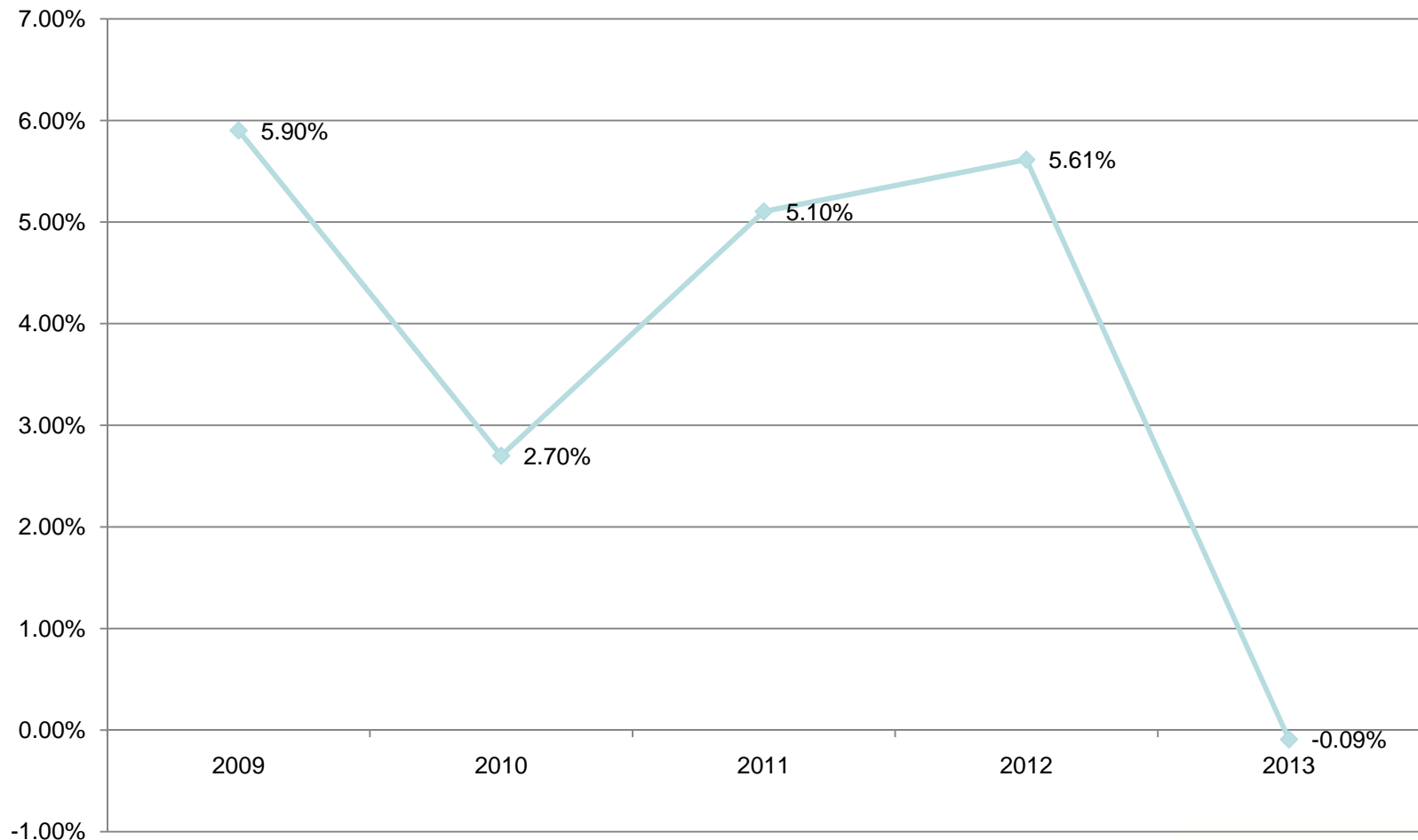


# Annual Payment Update 2009-2013





# Total Hospital Revenue Growth 2009-2013



Data collected from December 2012 Monitoring Maryland Performance Report.  
2013 data projected based on first six months of the fiscal year.

## **Draft Recommendation on Modifications to the Admission-Readmission Revenue (ARR) Methodology**

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

April 10, 2013

HSCRC staff will present this draft recommendation to the Commission on April 10, 2013 for discussion purposes only. No action is required by the Commission at this time. Comments should be sent by mail to Nduka Udom, Health Services Cost Review Commission, 4160 Patterson Avenue, Baltimore, MD 21215, or by email to [nduka.udom@maryland.gov](mailto:nduka.udom@maryland.gov) no later than April 21, 2013.

## Introduction

This draft recommendation proposes that the Commission modify the Admission Readmission Revenue (ARR) program by:

1. Moving ARR and Charge per Episode (CPE) methodology from voluntary agreements into HSCRC policy.
2. Adding a component for shared savings to the ARR program.
3. Applying methodological changes to the CPE methodology to better support HSCRC policies.

These modifications do not alter the fundamental structure of the ARR program. For example, the HSCRC would continue to bundle case weights into 30-day, all-cause episodes of care. In addition, a hospital's ability to gain charge capacity and revenue by decreasing readmissions remains in place. This draft recommendation requires no Commission action at this time. The HSCRC staff intends to bring forth a final recommendation to the Commission at the May 1, 2013 public Commission meeting.

## Past Commission Actions

At the January 12, 2011 public Commission meeting, the HSCRC approved the final recommendation of the ARR Hospital Payment Constraint Program. Commission action, in conjunction with the FY 2013 update factor in May 2012, modified ARR agreements by not allocating additional ARR seed funding in FY2013 as planned. In addition, HSCRC staff reported to the Commission on potential FY 2014 modifications to the ARR program at the November 7, 2012 and February 6, 2013 Commission meetings.

## Stakeholder Process

HSCRC staff engaged industry representatives to discuss ARR potential policy and methodological modifications. HSCRC staff held our first ARR meeting on January 24, 2013 with hospital representatives, followed by a payer discussion on February 22. Most recently, HSCRC staff met with representatives from both hospitals and payers on March 14, followed by a meeting with the Maryland Hospital Association (MHA) on March 21, 2013. We have included a letter from MHA in Appendix A.

## Background

ARR provides hospitals a financial incentive to more effectively coordinate care and reduce unnecessary readmissions to their facilities. Initiated by the HSCRC for FY 2012, ARR builds upon the inpatient Charge Per Case (CPC) methodology to develop 30-day, charge per episode (CPE) bundled weights. A hospital financially “wins” in ARR by reducing readmissions on a case mix adjusted basis by retaining a 30-day CPE weight, while reducing the costs associated with a readmission.

## Current Structure

The current ARR program is structured in the following manner:

- ARR includes all-cause readmissions.
- A case is considered a readmission when an admission occurs within 30 days of discharge of an initial admission to the same facility as the initial admission.<sup>1</sup>

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<sup>1</sup> Under ARR, some transfer cases are not considered readmissions and begin a new initial admission episode. Some system hospitals provide the HSCRC with master patient identifiers to link admissions and readmissions across the system facilities.

- The HSCRC bundles CPC case weights into 30-day episodes. HSCRC staff develops the bundles from hospitals' actual experiences.
- Hospitals have the opportunity to improve financial performance by reducing readmissions, thus eliminating costs while the HSCRC has not reduced the revenue base.
- The Commission approved the ARR policy with the understanding that productivity expectations would be high for hospitals – profits would be generated by reducing costs through reduced readmissions, while annual inflationary updates would be lower. However, the current structure of ARR has no explicit shared savings requirement.
- ARR is a voluntary program. Thirty-one hospitals are currently engaged in ARR.

### ARR Year 1 and Year 2 Status

From FY2011 to FY2012 (ARR Year 1 is FY2012), Maryland hospitals reduced both the admissions and readmissions as seen in Figure 1. From FY2011 to FY2012, readmissions decreased by 6.73 percent while admissions decreased by 3.49 percent. In contrast, observations increased over the same time period by 45.54 percent. While ED visits increased by 4.5 percent from FY2011 to FY2012, ED visits occurring within 30 days of an inpatient stay decreased by 1.55 percent.

**Figure 1: Readmission and Related Utilization Trends: All-Cause, 30-Day Intra Hospital Readmissions**

Indicator	Fiscal Year			Percent Difference		
	FY2010	FY2011	FY2012	FY2010-11	FY2011-12	Difference
Total Number of Readmissions	74,372	70,757	65,998	-4.86%	-6.73%	-1.87%
Total Number of Admissions	759,431	729,959	704,457	-3.88%	-3.49%	0.39%
Readmissions as % of Total Admissions	9.79%	9.69%	9.37%	-1.02%	-3.35%	-2.33%
Number of 0-1 Day Stay Readmissions	12,235	11,139	9,525	-8.96%	-14.49%	-5.53%
0-1 Day Stays as % of Total Readmissions	16.45%	15.74%	14.43%	-4.31%	-8.32%	-4.02%
Total Number of Observations	3,437	74,685	108,695	2072.97%	45.54%	
Total Number of Observations within 30 Day of Inpatient Stay	208	5,217	7,520	2408.17%	44.14%	
Total Number of ED visits	2,013,002	2,059,669	2,152,450	2.32%	4.50%	2.19%
Total Number of ED visits within 30 Day of Inpatient Stay	65,430	67,212	66,167	2.72%	-1.55%	-4.28%
Total Number of Transfers	6470	6454	6309	-0.25%	-2.25%	-2.00%
Transfers as a % of Total Discharges	0.85%	0.85%	0.83%	-0.25%	-2.25%	-2.00%

Source: HSCRC, April 2013.

Note: Compiled from HSCRC Inpatient and Outpatient Data Sets. Analysis did not remove exclusions or planned readmissions.

In Figure 2, we see that the decrease in statewide readmissions differed by payer. From FY2011 to FY2012 readmission decreased by 0.32 percentage points for all payers, 0.62 percentage points for Medicaid, and 0.44 percentage points for Medicare. Figure 2 also demonstrates that readmissions decreased for TPR hospitals as well as ARR hospitals.

HSCRC staff will also present a report on ARR Interventions and Outcomes in Year 1 as a separate agenda item to be presented at the April 10<sup>th</sup> Commission meeting.

**Figure 2: Percent Readmissions by Payer and Hospital Payment Type Groups**

Indicator	Fiscal Year			Percentage Point Difference		
	FY2010	FY2011	FY2012	FY2010-11	FY2011-12	Difference
<b>Percent Readmissions - All Payer</b>						
ARR	9.83%	9.71%	9.40%	-0.12%	-0.31%	-0.19%
TPR	10.40%	10.46%	9.79%	0.06%	-0.67%	-0.73%
Statewide	9.79%	9.69%	9.37%	-0.10%	-0.32%	-0.22%
<b>Percent Readmissions - Medicaid</b>						
ARR	9.80%	9.37%	8.73%	-0.43%	-0.64%	-0.21%
TPR	8.81%	7.95%	7.38%	-0.86%	-0.57%	0.29%
Statewide	9.39%	8.98%	8.36%	-0.41%	-0.62%	-0.21%
<b>Percent Readmissions - Medicare</b>						
ARR	13.79%	13.46%	13.07%	-0.33%	-0.39%	-0.06%
TPR	14.37%	14.55%	13.67%	0.18%	-0.88%	-1.06%
Statewide	13.81%	13.56%	13.12%	-0.25%	-0.44%	-0.19%

Source: HSCRC, April 2013.

Note: Compiled from HSCRC Inpatient and Outpatient Data Sets. Analysis did not remove exclusions or planned readmissions.

### CMS Readmissions Program and Shared Savings

As noted in previous reports to the Commission, as of federal fiscal year 2013, Section 3025 of the Patient Protection and Affordable Care Act (H.R. 3590) requires the Secretary of Health and Human Services to reduce payments to hospitals relative to excess readmissions as a means to reducing Medicare readmissions nationally. Medicare requires Inpatient Prospective Payment System (IPPS) hospitals outside of Maryland to engage in Medicare's Hospital Readmissions Reduction program.

The Secretary is authorized to exempt Maryland hospitals from the Medicare Readmissions Reduction Program if Maryland submits an annual report describing how a similar program in the State achieves or surpasses the measured results in terms of patient health outcomes and cost savings under the Medicare program.

While both Medicare's and the HSCRC's readmissions reductions programs aim to reduce readmissions, the two programs' structures differ. ARR is broader than Medicare's program, applying of all-cause readmissions for all APR-DRGs. Medicare's program measures only heart attack, heart failure, and pneumonia. However, the HSCRC's ARR program tracks readmissions only to the facility of the index admission (an eligible admission to an acute hospital), focusing on intra-hospital (and in some cases

intra-system) readmission. Currently, there is no identifier in the HSCRC data that tracks patients across facilities; therefore, readmissions across facilities cannot be identified. Finally, the HSCRC program is constructed in a manner that converts existing admissions and readmissions into CPE approved revenue on a revenue neutral basis, allowing hospitals to keep the profit when readmissions are eliminated. Likewise, hospitals are at risk for increased readmissions on a case mix adjusted basis. In contrast, Medicare penalizes hospitals for high readmission rates, resulting in an overall system payment reduction of 0.3 percent of inpatient revenue in FY 2013.

Medicare staff indicated that Maryland's ARR program may not meet the ACA "meet or exceed" requirement for financial savings to Medicare due to the lack of explicit savings. In the federal fiscal year 2013 final IPPS rule, CMS agreed to take a multi-year look at the existing program in Maryland for federal fiscal year 2013, while providing strong indication that HSCRC must move ARR into a model with explicit Medicare savings to gain exemption in federal fiscal year 2014.<sup>2</sup>

## Recommendations and Methodological Modifications

HSCRC staff has divided these draft recommendations into three parts. HSCRC staff recommends:

1. Moving ARR and Charge Per Episode (CPE) methodology from voluntary agreements into HSCRC policy, thereby requiring all hospitals not participating in alternative voluntary arrangements (e.g., TPR, PBR) to follow ARR/CPE policy.
2. Adding a continuous improvement shared savings component to the ARR program that will provide explicit, prospective savings to Medicare and all other payers. Following current policy, hospitals will continue to be able to generate profit during the rate year by reducing costs through reduced readmissions while maintaining the charge capacity under the CPE.
3. Applying several methodological changes to the CPE methodology to better support Commission policies.

We also noted at the end of this section a technical modification to current CPE methodology.

### Recommendation 1: Move the ARR Program from Voluntary Agreements to Commission Policy

Currently, the HSCRC and individual hospitals (or hospital systems) enter into voluntary ARR agreements. Each agreement is identical.

In an effort to continue to move toward bundled payment policies and for administrative ease, Commission staff recommends moving the ARR program from the voluntary agreements into applicable ARR and CPE commission policy. This action will require regulatory changes.

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<sup>2</sup> Department of Health and Human Services, Centers for Medicare & Medicaid Services, 42 CFR Parts 412, 413, 424, and 476, [CMS-1588-F], RIN 0938-AR12. Medicare Program; Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and the Long-Term Care Hospital Prospective Payment System and Fiscal Year 2013 Rates; Hospitals' Resident Caps for Graduate Medical Education Payment Purposes; Quality Reporting Requirements for Specific Providers and for Ambulatory Surgical Centers. Final rule.

### All Hospitals Will Adhere to ARR Policies Unless Engaged in an Approved Alternative Voluntary Policy

HSCRC staff recommends the Commission implement, as policy, a mandate for all hospitals to adhere to ARR and CPE requirements that are now contained exclusively in ARR agreements. Further, HSCRC staff recommends that the Commission provide in the opportunity for hospitals to engage in alternative payment methodologies, provided that the alternative payment methodology includes a shared savings component.<sup>3</sup>

The HSCRC will be asked by staff to memorialize the ARR and CPE policy by revising its current regulations, a process that will proceed through *Maryland Register* publication and notice; which will afford opportunity for public comment; and which will likely take several months to complete.

### Cancel Current ARR Agreements

By recommending that the Commission move the ARR program under policy (and regulation), the HSCRC staff requests that the Commission terminate the current ARR agreements one-by-one effective July 1, 2013. The “cause” of this action is the requirement by CMS that we implement a shared savings element to our ARR program, and this cannot be done under the existing agreements.

**Recommendation 1:** Require all acute hospitals not engaged in an alternative voluntary agreement (e.g., TPR, PBR) to be subject to ARR and CPE policies. HSCRC will modify current regulations to include ARR and the CPE policies through *Maryland Register* publication, notice, and the opportunity for public comment.

### Recommendation 2: Include a Shared Savings Component in ARR

Based on feedback from CMS, HSCRC staff recommends the Commission include an explicit shared savings component to the ARR program. In the implementation of the ARR in FY 2012 and FY 2013, the Commission allowed hospitals to keep 100 percent of any savings realized from reduced readmissions. As discussed above, CMS has indicated that this approach does not explicitly share savings with the public.

### Staff Reviewed Multiple Approaches

HSCRC staff reviewed multiple options for implementing a shared savings program in Maryland. Overall, HSCRC deemed it important to retain the fundamental structure of ARR, as the program has operated effectively in hospitals for the past two years. Staff reviewed shared savings mechanisms that could be layered into the ARR, while retaining the ARR policy.

The two major concepts most discussed were a scaling approach, similar to that employed under Medicare's Hospital Readmissions Reduction Program and a continuous improvement model. The scaling approach has a number of merits; most notably the similarity to CMS' Hospital Readmission Reduction program simplifies communications with CMS and strengthens Maryland's ability to gain exemption from CMS' program. However, HSCRC staff could not mitigate concerns over insufficient case mix adjustment and inability to track inter-hospital and out of state readmissions.

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<sup>3</sup> Renegotiating Total Payment Reimbursements (TPR) arrangements with hospitals, HSCRC staff intends to include a shared savings component. Similarly, HSCRC staff is working to develop a voluntary virtual capitation system called Population-Based Reimbursement (PBR), which would also include a shared savings component.

An alternative shared savings model applies a continuous improvement mechanism. In this shared savings model, the HSCRC calculates a case mix adjusted readmission rate for each hospital for the base period and determines a required reduction to achieve the revenue for shared savings. The case mix adjustment is based on observed vs. expected readmissions, calculated using the statewide average readmission rate for each DRG SOI cell and aggregated for each hospital (see Figure 3). The risk adjusted readmission rate is calculated as  $\text{observed}/\text{expected} \times \text{state average readmission rate} \times \text{normalization factor}$ .<sup>4</sup> HSCRC staff then apply a shared savings benchmark, that is, the required readmission reduction to achieve the predetermined revenue for shared savings, to the risk adjusted readmission rate to calculate the contribution from each hospital.

### Implement a Continuous Improvement Shared Savings Mechanism

HSCRC staff recommends implementing the continuous improvement shared savings mechanism prospectively. This mechanism has a number of advantages:

- The mechanism is case mix adjusted by DRG-SOI (see Figure 3).
- A shared savings benchmark increases the incentive to reduce readmission rates. Hospitals that achieve readmissions reductions that are greater than the shared savings benchmark, would keep all of their savings, whereas hospitals that do not achieve the shared savings benchmark will not have any savings.
- Every hospital contributes to the shared savings; however, the shared savings are distributed in proportion to their casemix adjusted readmission rates in the base year.
- The shared savings amount is not related to actual reduction in readmissions during the rate year, hence providing equitable incentive across all hospitals. Hospitals that reduce their readmission rates better than the shared savings benchmark during the rate year will retain 100 percent of the difference between their actual reduction and the shared savings benchmark. They also would lower their readmission rate to be used as the base for the following rate year, hence lowering their contribution to the shared savings program for the following year.
- When applied prospectively, the HSCRC sets and may adjust the targeted dollar amount for shared savings, thus guaranteeing to Medicare and other payers a fixed amount of shared savings.
- As the shared savings contributions are calculated as a reduction in readmissions in the current ARR program, the methodology does not rank hospitals based on readmission rates, which require adjustment for inter hospital and out of state readmissions.
- As indicated above, the shared savings mechanism builds upon the current ARR methodology, which provides hospitals a potential to reduce all their measured readmissions and achieve corresponding savings. Shared savings mechanism requires hospitals to contribute a certain percentage from reductions, prospectively. For example, assuming a hospital with a 10 percent readmission rate has potential to gain 10 percent of revenue if it reduces all readmissions. If the shared savings readmission reduction is 3 percent, the hospital will contribute  $10 \text{ percent} \times 3 \text{ percent} = 0.3 \text{ percent}$  of its revenue to the shared savings program. For a hospital to receive additional revenue from ARR program, a hospital would need to reduce readmissions more than 3 percent.

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<sup>4</sup> Risk adjusted rates are normalized to equalize observed vs. risk adjusted number of cases.



**Figure 3: Risk Adjustment for a Shared Savings Continuous Improvement Mechanism. Hospital Readmission Rate and Ratio for FY2012, Based on APR-DRG and Severity, Including 0-1 Day Stays and Adjusted for Planned Admissions**

Hospital ID	Hospital Name	Type	FY2012							
			Total Admissions	Expected Readmissions*	Observed Readmissions	Observed Rate	Readmission Ratio	Un-Normalized Risk Adjusted Rate*	Normalized Risk Adjusted Rate	
			A	B	C	D = C/A	E = C/B	F = E*Total D	G = F*Total D / Total F	
210001	Meritus	TPR	17,499	1,453	1,468	8.39%	1.0105	8.78%	8.83%	
210002	Univ. of Maryland	ARR	28,180	2,808	2,759	9.79%	0.9827	8.54%	8.59%	
210003	Prince Georges	CPC	13,524	1,068	831	6.14%	0.7784	6.77%	6.80%	
210004	Holy Cross	ARR	36,102	2,252	2,115	5.86%	0.9392	8.16%	8.21%	
210005	Frederick Memorial	ARR	21,085	1,862	2,055	9.75%	1.1034	9.59%	9.64%	
210006	Harford Memorial	ARR	5,279	577	556	10.53%	0.9633	8.37%	8.42%	
210007	St. Josephs	ARR	18,144	1,444	1,282	7.07%	0.8877	7.72%	7.76%	
210008	Mercy	ARR	19,146	1,372	1,315	6.87%	0.9585	8.33%	8.37%	
210009	Johns Hopkins	ARR	45,148	4,244	4,652	10.30%	1.0962	9.53%	9.58%	
210010	Dorchester General	TPR	2,843	316	293	10.31%	0.9267	8.05%	8.10%	
210011	St. Agnes	ARR	20,603	1,803	1,718	8.34%	0.9529	8.28%	8.32%	
210012	Sinai	ARR	28,821	2,601	2,665	9.25%	1.0246	8.91%	8.95%	
210013	Bon Secours	ARR	6,659	792	835	12.54%	1.0537	9.16%	9.21%	
210015	Franklin Square	ARR	24,346	2,187	2,280	9.36%	1.0426	9.06%	9.11%	
210016	Washington Adventist	ARR	15,240	1,332	1,197	7.85%	0.8989	7.81%	7.85%	
210017	Garrett County	TPR	2,421	187	137	5.66%	0.7307	6.35%	6.38%	
210018	Montgomery General	ARR	9,793	897	866	8.84%	0.9656	8.39%	8.44%	
210019	Peninsula Regional	ARR	21,065	1,870	1,903	9.03%	1.0178	8.85%	8.89%	
210022	Suburban	ARR	13,735	1,263	1,091	7.94%	0.8635	7.51%	7.54%	
210023	Anne Arundel	ARR	33,077	2,265	2,384	7.21%	1.0524	9.15%	9.19%	
210024	Union Memorial	ARR	14,878	1,474	1,427	9.59%	0.9681	8.41%	8.46%	
210027	Western Maryland	TPR	14,713	1,304	1,715	11.66%	1.3149	11.43%	11.49%	
210028	St. Marys	ARR	8,578	717	877	10.22%	1.2233	10.63%	10.69%	
210029	Johns Hopkins Bayview	ARR	21,526	1,871	2,043	9.49%	1.0917	9.49%	9.54%	
210030	Chester River	TPR	2,798	274	297	10.61%	1.0849	9.43%	9.48%	
210032	Union Hospital of Cecil	TPR	6,978	644	705	10.10%	1.0945	9.51%	9.56%	
210033	Carroll County	TPR	13,103	1,138	1,261	9.62%	1.1083	9.63%	9.68%	
210034	Harbor	ARR	11,545	974	922	7.99%	0.9469	8.23%	8.27%	
210035	Civista	ARR	7,693	713	692	9.00%	0.9708	8.44%	8.48%	
210037	Memorial of Easton	TPR	9,332	798	769	8.24%	0.9634	8.37%	8.42%	
210038	Maryland General	ARR	9,356	1,001	981	10.49%	0.9799	8.52%	8.56%	
210039	Calvert Memorial	TPR	8,192	700	597	7.29%	0.8527	7.41%	7.45%	
210040	Northwest	ARR	13,493	1,477	1,687	12.50%	1.1419	9.93%	9.98%	
210043	Baltimore Washington	ARR	19,169	1,889	1,974	10.30%	1.0448	9.08%	9.13%	
210044	GBMC	ARR	22,337	1,552	1,248	5.59%	0.8043	6.99%	7.03%	
210045	McCready	TPR	397	49	28	7.05%	0.5743	4.99%	5.02%	
210048	Howard County	ARR	18,718	1,387	1,314	7.02%	0.9474	8.23%	8.28%	
210049	Upper Chesapeake	ARR	14,671	1,271	1,258	8.57%	0.9898	8.60%	8.65%	
210051	Doctors Community	ARR	11,868	1,290	1,198	10.09%	0.9286	8.07%	8.11%	
210054	Southern Maryland	CPC	17,919	1,654	1,655	9.24%	1.0006	8.70%	8.74%	
210055	Laurel Regional	CPC	6,455	517	347	5.38%	0.6713	5.83%	5.86%	
210056	Good Samaritan	ARR	14,854	1,673	1,965	13.23%	1.1747	10.21%	10.26%	
210057	Shady Grove	ARR	26,075	1,816	1,714	6.57%	0.9438	8.20%	8.25%	
210058	Kernan	ARR	2,983	250	92	3.08%	0.3681	3.20%	3.22%	
210060	Fort Washington	CPC	2,115	206	156	7.38%	0.7571	6.58%	6.61%	
210061	Atlantic General	CPC	3,021	348	256	8.47%	0.7366	6.40%	6.44%	
<b>STATEWIDE TOTAL</b>			<b>685,477</b>	<b>59,580</b>	<b>59,580</b>	<b>8.69%</b>	<b>1.0000</b>	<b>8.65%</b>	<b>8.69%</b>	

\* Based on Statewide readmissions by Initial Admission APR-DRG SOI for FY12

HSCRC staff modeled multiple scenarios within the continuous improvement shared savings mechanism. In the next few sections, staff discusses these points still under consideration. Public comments are welcome on these areas.

#### *Value of Shared Savings*

Commission policy will determine the value of the shared savings dollar amount. HSCRC staff developed a model with a 0.3 percent and a 0.5 percent shared savings amount. See Figure 4 and Figure 5 in separate documents (for optimal viewing, print on legal sized paper). The calculated shared savings benchmarks to achieve the modeled dollar amounts are 3.50 percent and 5.85 percent reductions in readmission rates, respectively. For FY 2013, HSCRC staff still is considering which percentage to use and will bring forth a recommendation next month.

Regardless of the value of the shared shavings for FY 2013, HSCRC staff recommends the Commission reevaluate the value of the shared savings on a regular bases, likely as an annual review in conjunction with update factor discussions.

#### *Adjust for Planned Readmissions*

Based on feedback from industry representatives, HSCRC staff concludes it prudent to remove planned readmissions for the continuous improvement shared savings logic. A planned readmission is an intentional readmission within 30 days of discharge from an acute care hospital that is a scheduled part of the patient's plan of care. Planned readmissions are not necessarily a signal of deficient quality of care and will not be reduced as a result of improvements in care; thus, they should be excluded from the calculation of shared savings program. (HSCRC staff further intends to consider planned admissions in the CPE episode of care logic, as noted near the end of this recommendation).

HSCRC staff identified and employed AHRQ's planned admissions logic, which identifies planned readmissions in claims used by CMS and endorsed by the National Quality Foundation. AHRQ 's algorithm defines "planned" readmissions as those in which one of a pre-specified list of procedures took place with no acute illness or complication, or those for maintenance chemotherapy or rehabilitation. Thus, planned admissions can be either a non-acute readmission in which one of 35 typically planned procedures occurs, or a readmission for maintenance chemotherapy. For example:

- A readmission with a discharge condition category of biliary tract disease that included a cholecystectomy would be considered **planned**
- A readmission with a discharge condition category of septicemia that included a cholecystectomy would be considered **unplanned**
- A readmission with a discharge condition category of "complications of surgical procedures or medical care" that included a cholecystectomy would be considered **unplanned**

Figure 6 provides the distribution of the top 40 most commonly planned admissions. Using fiscal year 2012 data, preliminary analyses of planned admissions and readmissions, yielded interesting results. In particular, there were 685,477 cases statewide of which 77,351 or 11 percent were planned admission cases. Forty of the most frequently planned admissions by APR-DRGs represented 89 percent of these cases. Readmissions for maintenance chemotherapy or rehabilitation APR-DRGs were 100 percent planned in the AHRQ logic.

**Figure 6: Distribution of 40 Most Commonly Planned Admission APR DRGs  
 by Type of Admission for Fiscal Year 2012**

APR DRG CODE	APR DRG CODE DESCRIPTION	TYPE OF ADMISSION					
		PLANNED		UNPLANNED			TOTAL
		NUMBER OF CASES	PERCENT OF CASES	NUMBER OF CASES	PERCENT OF CASES	NUMBER OF CASES	PERCENT OF TOTAL STATE CASES
985	REHAB - ORTHOPEDICS/ARTHRITIS	2,778	100.00%	0	0.00%	2,778	0.41%
693	CHEMOTHERAPY	2,613	100.00%	0	0.00%	2,613	0.38%
983	REHAB - STROKE	1,809	100.00%	0	0.00%	1,809	0.26%
860	REHABILITATION	920	100.00%	0	0.00%	920	0.13%
988	REHAB - BRAIN INJURY & RANCHO LEVELS (7,8)	866	100.00%	0	0.00%	866	0.13%
986	REHAB - NEUROLOGICAL	539	100.00%	0	0.00%	539	0.08%
987	REHAB - PAIN SYNDROMES	285	100.00%	0	0.00%	285	0.04%
982	REHAB - SPINAL CORD INJURY	220	100.00%	0	0.00%	220	0.03%
984	REHAB - AMPUTATION	161	100.00%	0	0.00%	161	0.02%
989	REHAB - LICENSED BRAIN INJURY (LEVELS 1 TO 6)	82	100.00%	0	0.00%	82	0.01%
980	REHAB DRG 850 (NATURE = REHAB) & LICENSED REHAB HOSPITAL	20	100.00%	0	0.00%	20	0.00%
3	BONE MARROW TRANSPLANT	6	100.00%	0	0.00%	6	0.00%
303	DORSAL & LUMBAR FUSION PROC FOR CURVATURE OF BACK	491	99.80%	1	0.20%	492	0.07%
482	TRANSURETHRAL PROSTATECTOMY	583	99.32%	4	0.68%	587	0.09%
262	CHOLECYSTECTOMY EXCEPT LAPAROSCOPIC	687	99.28%	5	0.72%	692	0.10%
263	LAPAROSCOPIC CHOLECYSTECTOMY	4,494	99.05%	43	0.95%	4,537	0.66%
480	MAJOR MALE PELVIC PROCEDURES	1,563	98.67%	21	1.33%	1,584	0.23%
512	UTERINE & ADNEXA PROCEDURES FOR NON-OVARIAN & NON-ADNEXAL	525	98.13%	10	1.87%	535	0.08%
511	UTERINE & ADNEXA PROCEDURES FOR OVARIAN & ADNEXAL MALIGNANT	253	95.83%	11	4.17%	264	0.04%
304	DORSAL & LUMBAR FUSION PROC EXCEPT FOR CURVATURE OF BACK	4,110	92.88%	315	7.12%	4,425	0.65%
260	MAJOR PANCREAS, LIVER & SHUNT PROCEDURES	943	92.18%	80	7.82%	1,023	0.15%
302	KNEE JOINT REPLACEMENT	11,518	91.83%	1,025	8.17%	12,543	1.83%
163	CARDIAC VALVE PROCEDURES W/O CARDIAC CATHETERIZATION	989	91.24%	95	8.76%	1,084	0.16%
321	CERVICAL SPINAL FUSION & OTHER BACK/NECK PROC EXC DISC EX	3,247	90.09%	357	9.91%	3,604	0.53%
301	HIP JOINT REPLACEMENT	6,899	88.82%	868	11.18%	7,767	1.13%
261	MAJOR BILIARY TRACT PROCEDURES	129	87.76%	18	12.24%	147	0.02%
404	THYROID, PARATHYROID & THYROIDECTOMY PROCEDURES	935	87.55%	133	12.45%	1,068	0.16%
513	UTERINE & ADNEXA PROCEDURES FOR NON-MALIGNANCY EXCEPT LEI	3,217	86.22%	514	13.78%	3,731	0.54%
442	KIDNEY & URINARY TRACT PROCEDURES FOR MALIGNANCY	726	85.01%	128	14.99%	854	0.12%
310	INTERVERTEBRAL DISC EXCISION & DECOMPRESSION	2,372	84.23%	444	15.77%	2,816	0.41%
510	PELVIC VISCECTOMY, RADICAL HYSTERECTOMY & OTHER RADICAL	202	81.12%	47	18.88%	249	0.04%
692	RADIOTHERAPY	37	80.43%	9	19.57%	46	0.01%
362	MASTECTOMY PROCEDURES	1,032	75.77%	330	24.23%	1,362	0.20%
166	CORONARY BYPASS W/O CARDIAC CATH OR PERCUTANEOUS CARDIAC	757	73.78%	269	26.22%	1,026	0.15%
228	INGUINAL, FEMORAL & UMBILICAL HERNIA PROCEDURES	555	71.06%	226	28.94%	781	0.11%
162	CARDIAC VALVE PROCEDURES W CARDIAC CATHETERIZATION	237	70.96%	97	29.04%	334	0.05%
305	AMPUTATION OF LOWER LIMB EXCEPT TOES	556	70.47%	233	29.53%	789	0.12%
519	UTERINE & ADNEXA PROCEDURES FOR LEIOMYOMA	2,032	68.76%	923	31.24%	2,955	0.43%
24	EXTRACRANIAL VASCULAR PROCEDURES	1,444	68.27%	671	31.73%	2,115	0.31%
120	MAJOR RESPIRATORY & CHEST PROCEDURES	840	61.99%	515	38.01%	1,355	0.20%
<b>TOP 40 APR DRG TOTAL</b>		<b>61,672</b>	<b>89.30%</b>	<b>7,392</b>	<b>10.70%</b>	<b>69,064</b>	<b>10.08%</b>
<b>STATEWIDE TOTAL</b>		<b>77,351</b>	<b>11.28%</b>	<b>608,126</b>	<b>88.72%</b>	<b>685,477</b>	<b>100.00%</b>

Source: HSCRC, April 2013.

Note: Compiled from HSCRC Inpatient Dataset with CPC exclusions.

Staff modeled the impact of adjusting for planned readmissions, so that these admissions become index admissions for a 30-day episode. As expected the adjustment reduced the hospital readmission rates, as planned readmissions are reclassified as index admissions in the ARR episode logic in relation to the proportion of planned admissions as seen in Figure 7.

**Figure 7: Hospital Readmissions FY2012, Comparison of Planned Readmission Adjustment**

Hospital ID	Hospital Name	Total Discharges	Percent Planned Admissions	Percent Readmissions		
				No Adjustment for Planned Readmissions	With Adjustment for Planned Readmissions	Impact of Planned Readmission Adjustment
210001	MERITUS	17,499	13.22%	8.85%	8.39%	-0.46%
210002	UNIVERSITY OF MARYLAND	28,180	12.60%	10.95%	9.79%	-1.16%
210003	PRINCE GEORGE	13,524	3.25%	6.40%	6.14%	-0.26%
210004	HOLY CROSS	36,102	5.69%	6.11%	5.86%	-0.25%
210005	FREDERICK MEMORIAL	21,085	7.98%	10.03%	9.75%	-0.28%
210006	HARFORD	5,279	3.50%	10.70%	10.53%	-0.17%
210007	ST. JOSEPH	18,144	18.55%	7.88%	7.07%	-0.81%
210008	MERCY	19,146	18.21%	7.95%	6.87%	-1.08%
210009	JOHNS HOPKINS	45,148	17.57%	11.41%	10.30%	-1.11%
210010	DORCHESTER GENERAL	2,843	2.99%	10.48%	10.31%	-0.17%
210011	ST. AGNES	20,603	8.85%	8.76%	8.34%	-0.42%
210012	SINAI	28,821	16.09%	10.38%	9.25%	-1.13%
210013	BON SECOURS	6,659	2.76%	12.94%	12.54%	-0.40%
210015	FRANKLIN SQUARE	24,346	7.66%	9.77%	9.36%	-0.41%
210016	WASHINGTON ADVENTIST	15,240	8.20%	8.33%	7.85%	-0.48%
210017	GARRETT COUNTY	2,421	9.38%	5.95%	5.66%	-0.29%
210018	MONTGOMERY GENERAL	9,793	6.57%	9.04%	8.84%	-0.20%
210019	PENINSULA GENERAL	21,065	12.58%	9.79%	9.03%	-0.76%
210022	SUBURBAN	13,735	20.30%	8.59%	7.94%	-0.65%
210023	ANNE ARUNDEL	33,077	13.41%	7.72%	7.21%	-0.51%
210024	UNION MEMORIAL	14,878	20.92%	10.19%	9.59%	-0.60%
210027	WESTERN MARYLAND	14,713	11.97%	12.43%	11.66%	-0.77%
210028	ST. MARY	8,578	6.37%	10.43%	10.22%	-0.21%
210029	HOPKINS BAYVIEW MED CTR	21,526	8.43%	9.76%	9.49%	-0.27%
210030	CHESTER RIVER	2,798	5.47%	10.79%	10.61%	-0.18%
210032	UNION HOSPITAL OF CECIL	6,978	5.80%	10.48%	10.10%	-0.38%
210033	CARROLL COUNTY	13,103	10.14%	9.96%	9.62%	-0.34%
210034	HARBOR	11,545	12.72%	8.51%	7.99%	-0.52%
210035	CIVISTA	7,693	6.19%	9.20%	9.00%	-0.20%
210037	MEMORIAL AT EASTON	9,332	13.35%	8.94%	8.24%	-0.70%
210038	MARYLAND GENERAL	9,356	3.66%	10.78%	10.49%	-0.29%
210039	CALVERT	8,192	6.01%	7.42%	7.29%	-0.13%
210040	NORTHWEST	13,493	4.82%	12.69%	12.50%	-0.19%
210043	BALTIMORE WASHINGTON	19,169	11.59%	10.88%	10.30%	-0.58%
210044	G.B.M.C.	22,337	11.66%	6.11%	5.59%	-0.52%
210045	MCCREADY	397	1.76%	7.05%	7.05%	0.00%
210048	HOWARD COUNTY	18,718	6.10%	7.24%	7.02%	-0.22%
210049	UPPER CHESAPEAKE HEALTH	14,671	10.11%	8.92%	8.57%	-0.35%
210051	DOCTORS COMMUNITY	11,868	8.56%	10.49%	10.09%	-0.40%
210054	SOUTHERN MARYLAND	17,919	4.68%	9.48%	9.24%	-0.24%
210055	LAUREL REGIONAL	6,455	9.74%	8.04%	5.38%	-2.66%

Hospital ID	Hospital Name	Total Discharges	Percent Planned Admissions	Percent Readmissions		
				No Adjustment for Planned Readmissions	With Adjustment for Planned Readmissions	Impact of Planned Readmission Adjustment
210056	GOOD SAMARITAN	14,854	19.49%	13.83%	13.23%	-0.60%
210057	SHADY GROVE	26,075	6.97%	6.90%	6.57%	-0.33%
210058	KERNAN	2,983	91.92%	7.58%	3.08%	-4.50%
210060	FT. WASHINGTON	2,115	10.87%	7.52%	7.38%	-0.14%
210061	ATLANTIC GENERAL	3,021	10.69%	8.74%	8.47%	-0.27%
<b>STATE TOTAL</b>		<b>685,477</b>	<b>11.28%</b>	<b>9.27%</b>	<b>8.69%</b>	<b>-0.58%</b>

### *Exclude TPR Hospitals*

As indicated in Recommendation 1, in TPR agreement negotiations, HSCRC staff will include a shared savings mechanism. Therefore, HSCRC staff recommends excluding TPR hospital (or hospitals engaged in other alternative voluntary agreements, such as PBR) from the revenue reductions associated with ARR shared savings.

Note that in determining the statewide expected readmission rates (discussed above), HSCRC staff recommends including the TPR hospitals. This is similar to TPR hospitals' inclusion in CPE statewide weight development.

### *Coordinate with Lag Timeframes*

While HSCRC staff modeled the shared savings mechanism on a fiscal year basis, we understand that our approach to share savings must align with data lags being implemented by the HSCRC. It is likely that the actual timeframe for the first shared savings will be calendar year 2012 for implementation prospectively in FY 2014 rates.

### **Interaction with Model Design Proposal**

Shared savings is also an explicit component of Maryland proposed Model Design demonstration. In our submission the CMS, Maryland assured a 0.5 percent savings from shared savings beginning in FY 2015.

**Recommendation 2:** HSCRC staff proposes incorporating a prospective, continuous improvement shared savings mechanism for FY 2014 rates.

### **Recommendation 3: Implement Methodological Changes to Support Commission Policies**

In addition to layering onto the ARR program a shared savings mechanism, HSCRC staff recognizes that other methodological changes to ARR and CPE will better support Commission policies. We recommend, therefore, several modifications to policies and methodologies.

#### **A. Short Stays Cases**

Currently, short stay cases are excluded from the CPE methodology. HSCRC staff recommend reincorporating these into the methodology to prevent them from representing pass-through revenue to the system and to minimize their impact on the current waiver. Further, a consistent treatment of inpatient cases would make the existing model more comprehensible. Technically, folding short stay cases into the model is straightforward, with CPE targets and case mix weights reflecting the change

when rebased at the beginning of the rate year. Figure 8 demonstrates hospital readmissions with and without one day stays.

The policy concern is that attaching APR-DRG rate capacity to short stays could encourage an expansion of these cases and reverse the progress previously made on reducing short stays in Maryland. To the degree that these cases are denied as medically inappropriate, they would not generate rate capacity; but, the HSCRC staff believes that other mechanisms would be required to guarantee this result. One possible solution is to monitor the number of short stays by hospital and adjust the hospital's revenue if predicted decreases in short stay cases fail to materialize without sufficient substantiation.

**Recommendation 3A:** Reincorporate short stay cases into the ARR methodology. Monitor the short stay cases in hospital and adjust the hospital's revenue if warranted.

**Figure 8. Hospital Readmissions for FY2011 and FY2012, Comparison of One Day Stays**

Hospital ID	Hospital Name	FY2011				FY2012			
		Without One Day Stays		With One Day Stays		Without One Day Stays		With One Day Stays	
		Total Discharges	Percent Readms	Total Discharges	Percent Readms	Total Discharges	Percent Readms	Total Discharges	Percent Readms
210001	MERITUS	15,502	8.37%	18,083	9.25%	15,359	8.26%	17,499	8.85%
210002	UNIV. OF MARYLAND	23,157	10.88%	30,247	11.77%	22,653	10.31%	28,180	10.95%
210003	PRINCE GEORGE	12,936	5.93%	15,088	6.76%	11,895	5.67%	13,524	6.40%
210004	HOLY CROSS	32,565	5.53%	37,163	6.51%	31,936	5.36%	36,102	6.11%
210005	FREDERICK MEMORIAL	18,522	9.18%	21,926	9.93%	18,071	9.29%	21,085	10.03%
210006	HARFORD	4,704	11.59%	6,099	12.46%	4,308	9.94%	5,279	10.70%
210007	ST. JOSEPH	15,728	7.44%	18,865	7.90%	15,147	7.33%	18,144	7.88%
210008	MERCY	16,136	7.29%	20,266	8.91%	16,416	7.16%	19,146	7.95%
210009	JOHNS HOPKINS	34,989	10.93%	45,074	11.39%	35,425	10.90%	45,148	11.41%
210010	DORCHESTER GENERAL	2,799	10.15%	3,435	10.63%	2,401	10.00%	2,843	10.48%
210011	ST. AGNES	17,590	8.75%	21,223	9.28%	17,187	8.44%	20,603	8.76%
210012	SINAI	23,161	9.64%	27,822	10.10%	23,878	9.91%	28,821	10.38%
210013	BON SECOURS	6,148	11.99%	7,247	13.29%	5,716	11.70%	6,659	12.94%
210015	FRANKLIN SQUARE	20,097	9.81%	24,252	8.61%	20,580	8.95%	24,346	9.77%
210016	WASHINGTON ADVENTIST	13,910	7.56%	17,502	8.43%	12,967	7.84%	15,240	8.33%
210017	GARRETT COUNTY	2,154	6.78%	2,717	7.29%	2,024	5.78%	2,421	5.95%
210018	MONTGOMERY GENERAL	8,838	8.74%	10,518	9.60%	8,290	8.47%	9,793	9.04%
210019	PENINSULA GENERAL	19,554	9.74%	23,190	10.28%	18,316	9.24%	21,065	9.79%
210022	SUBURBAN	10,890	9.03%	14,140	8.93%	10,968	8.56%	13,735	8.59%
210023	ANNE ARUNDEL	24,804	7.00%	30,220	7.82%	26,867	6.98%	33,077	7.72%
210024	UNION MEMORIAL	11,940	10.03%	15,016	8.26%	12,019	9.64%	14,878	10.19%
210027	WESTERN MARYLAND	14,046	12.16%	16,497	12.77%	12,913	11.73%	14,713	12.43%
210028	ST. MARY	6,889	7.50%	8,963	10.47%	6,607	7.55%	8,578	10.43%
210029	HOPKINS BAYVIEW	18,278	9.44%	22,039	10.83%	18,233	8.56%	21,526	9.76%
210030	CHESTER RIVER	2,534	11.25%	2,973	12.01%	2,389	10.13%	2,798	10.79%
210032	UNION HOSPITAL OF CECIL	6,147	10.74%	7,618	11.21%	5,971	9.95%	6,978	10.48%
210033	CARROLL COUNTY	11,822	10.44%	15,440	11.28%	10,554	9.12%	13,103	9.96%
210034	HARBOR	9,953	7.73%	12,217	7.41%	9,459	7.74%	11,545	8.51%
210035	CIVISTA	7,158	9.07%	8,557	9.34%	6,634	8.77%	7,693	9.20%
210037	MEMORIAL AT EASTON	8,703	9.22%	10,398	9.70%	7,979	8.26%	9,332	8.94%
210038	MARYLAND GENERAL	9,024	10.89%	10,331	12.28%	7,970	9.44%	9,356	10.78%
210039	CALVERT	6,845	7.06%	8,463	7.99%	6,773	6.73%	8,192	7.42%
210040	NORTHWEST	10,849	13.00%	13,305	13.30%	11,175	12.56%	13,493	12.69%
210043	B.W.M.C.	15,397	11.07%	19,512	11.13%	15,766	10.61%	19,169	10.88%

Hospital ID	Hospital Name	FY2011				FY2012			
		Without One Day Stays		With One Day Stays		Without One Day Stays		With One Day Stays	
		Total Discharges	Percent Readms	Total Discharges	Percent Readms	Total Discharges	Percent Readms	Total Discharges	Percent Readms
210044	G.B.M.C.	20,765	6.05%	23,657	6.79%	19,593	5.38%	22,337	6.11%
210045	MCCREADY	435	6.67%	537	6.89%	315	6.35%	397	7.05%
210048	HOWARD COUNTY	16,715	7.16%	19,230	7.78%	16,663	6.82%	18,718	7.24%
210049	UPPER CHESAPEAKE	11,856	8.76%	15,365	9.39%	11,950	8.20%	14,671	8.92%
210051	DOCTORS COMMUNITY	9,999	11.56%	13,096	11.39%	9,744	10.21%	11,868	10.49%
210054	SOUTHERN MARYLAND	15,069	8.16%	18,446	9.08%	15,122	8.74%	17,919	9.48%
210055	LAUREL REGIONAL	5,732	7.24%	6,557	8.19%	5,787	7.05%	6,455	8.04%
210056	GOOD SAMARITAN	12,428	14.24%	15,223	12.19%	12,309	13.14%	14,854	13.83%
210057	SHADY GROVE	22,700	6.37%	26,388	7.02%	22,454	6.21%	26,075	6.90%
210058	KERNAN	2,616	6.00%	2,768	7.41%	2,808	6.05%	2,983	7.58%
210060	FT. WASHINGTON	2,179	6.52%	2,699	6.67%	1,762	7.49%	2,115	7.52%
210061	ATLANTIC GENERAL	2,870	9.97%	3,994	9.36%	2,536	8.79%	3,021	8.74%
<b>STATE TOTAL</b>		<b>587,133</b>	<b>8.93%</b>	<b>714,366</b>	<b>9.51%</b>	<b>575,889</b>	<b>8.58%</b>	<b>685,477</b>	<b>9.27%</b>

### B. Hospice and Palliative Care Cases

The Commission at its March 7, 2001 meeting approved the discounting of contracted hospice admissions as a component of a demonstration project. These cases were removed from CPC logic through low trims. Due to a technical oversight, hospice cases were not removed from the CPC/CPE beginning July 1, 2010 when the Commission excluded zero and one day stays from the CPC. Therefore, across several years, hospitals have gained excess rate capacity from discounted hospice cases. HSCRC has corrected this technical oversight.

In addition to contracted hospice cases, HSCRC staff is also considering whether palliative care cases should be excluded from the CPE. HSCRC staff is investigating the impact of removing palliative care cases. We intend to make a recommendation on this at the May public Commission meeting.

**Recommendation 3B:** HSCRC staff seeks comment on a recommendation to exclude palliative care cases from the CPE.

### C. Outlier Trim Logic

As part of the transition to the use of the APR DRG Severity Grouper to monitor case mix at Maryland hospitals in July 2006, the Commission adopted a Hospital Specific Relative Value (HSRV) method of case mix weight calculations. A Hospital Specific Outlier methodology was also adopted. The calculation of outliers are detailed below.

#### Current Hospital Specific Trim Logic

The current trim logic is hospital specific and consists of only high trim limits. Each hospital's trim limits are calculated as follows:

1. Create included cases by removing all categorical exclusions from the data.
2. Create statewide charge-based weight by dividing each APR DRG/ Severity average charge by the statewide average charge.
3. Adjust the statewide APR DRG/ Severity weights monotonically using 3M's National Monotonic Relative Weights data and normalize the statewide CMI to 1.00.

4. Create each hospital's APR DRG/ Severity High trim limit as the hospital's CPC adjusted for the hospital base CMI multiplied by the statewide APR DRG/ Severity weight multiplied by 3.5155.
5. Each APR DRG/ Severity high trim cell must have a minimum \$10,000 loss and a "dead-zone" of \$100,000.
6. Cases above the upper limit are trimmed, and trimmed charges (based on unit rates) are passed through to the hospital.
7. Hospital CPE/CPC(s) are reconstituted to reflect high trimmed charges and are revenue neutral at the base.

With the exclusion of the short stay cases from the CPC/CPE methodology, the Commission eliminated its low trim outlier methodology. The current outlier logic only recognizes high trim limits. 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 current hospital specific trim logic has 123,280 cells and contains parameters imputed in 2006 and whose relationship to the current payment methodologies no longer exists. For example, the lower and upper limit multipliers of 0.1706 and 3.5155, respectively, were established based on some relationship of the total high trim outlier amounts to the overall inlier revenue. Moreover, under this logic, it has become increasingly difficult for most hospitals to submit to the Commission the volumes and units of services associated with their outlier cases. This inability to submit the volumes and units of services delays the issuance of rate orders to affected hospitals. In addition, with the recommendation to reintroduce one day stays to the CPE, HSCRC staff is considering the inclusion to low trims.

#### *Proposed Statewide Trim Logic*

HSCRC staff has modeled multiple trim methodologies over the last several months. While we continue to review the options for outlier methodologies, in this recommendation we set forth a potential model for Commission and public comment.

The follow trim logic develops statewide trims that consist of low and high trim limits on a per case basis. Each APR DRG/Severity cell's trim limits would be calculated as follows:

1. Create included cases by removing all categorical exclusions from the data.
2. Create statewide charge-based weight by dividing each APR DRG/ Severity geometric mean charge by the statewide geometric mean charge.
3. Adjust the statewide APR DRG/ Severity weights monotonically using 3M's National Monotonic Relative Weights data and normalize the statewide CMI to 1.00.
4. Set low and high trim limits as the statewide geometric mean charge multiplied by APR DRG/ Severity weight (created in step 3 above), and multiplied by 2.00 standard deviations from the statewide geometric mean charge.
5. Charges and corresponding cases below the low trim limit are excluded from hospitals' CPE/CPC(s), yet paid on the basis of charges.
6. Hospital CPE/CPC(s) are reconstituted to reflect new outlier rules; changes to the base will be revenue neutral.

The above methodology simplifies the trim logic by limiting the number of cells to 2,684. With this



change, the Commission staff can calculate reliably the outlier volumes and units of services based on aggregate data already submitted to the Commission without relying on each individual hospital submission.

We provide, as separate documents, Figures 9 and 10. Figure 9 demonstrates differences between the current and potential methodology. Figure 10 demonstrates the impact of the "dead zone."

**Recommendation 3C:** Staff recommends administratively simplifying trims. We are seeking comment on the methodology described above.

#### D. Year 1 Seed Funding

Commission action, in conjunction with the FY 2013 update factor in May 2012, modified ARR agreements by not allocating additional ARR seed funding in FY2013 as planned. The approved Commission recommendation also amended the ARR agreements "to definitively allow hospitals to keep the first year of seed funding without repayment as long as the hospital demonstrates improvement on readmissions in the following three rate years beginning in FY2013."

For FY 2014, HSCRC staff recommends allowing ARR Year 1 seed funding to remain in place in revenue with continued monitoring. As no change to current policy is required, no Commission action is required.

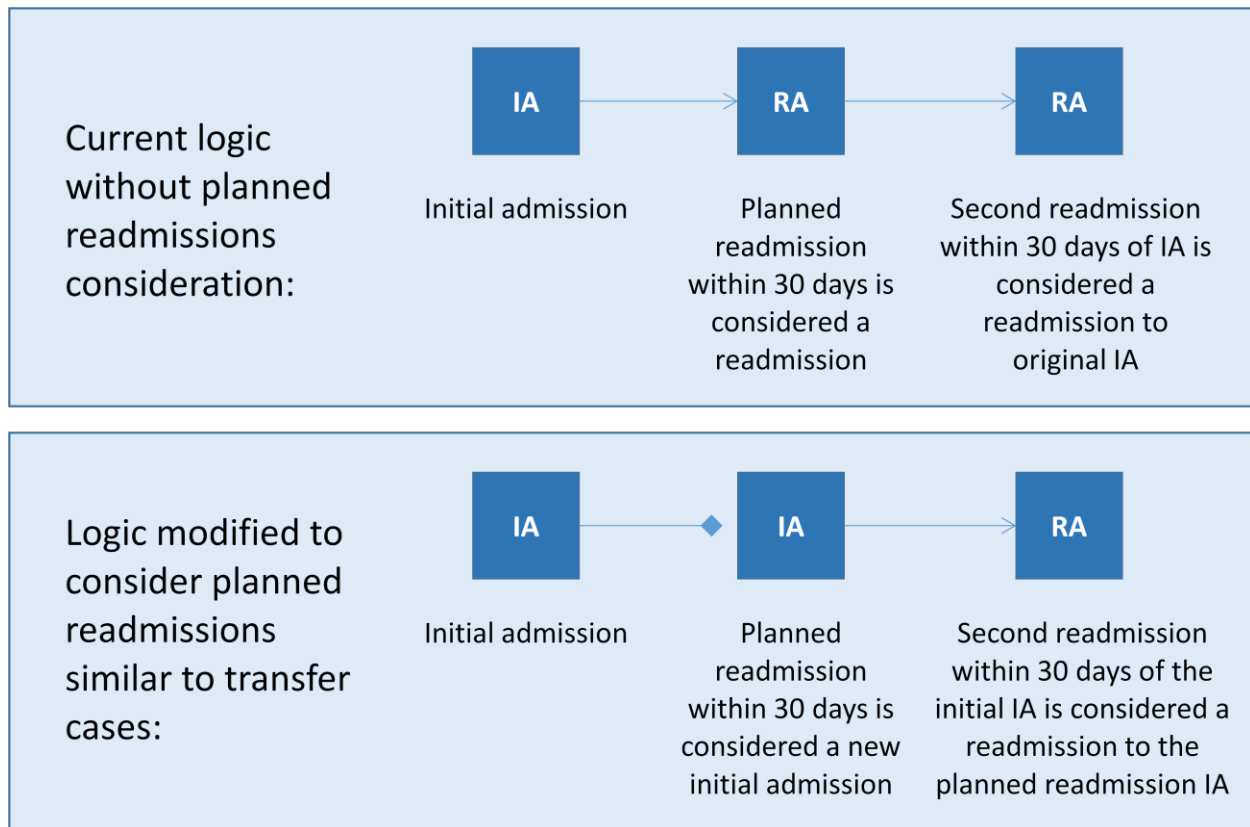
#### Technical Modification Notice

##### Planned Readmissions

Currently, the ARR methodology does not differentiate between planned and unplanned readmissions. However, as indicated above, based on industry recommendation, the HSCRC applied CMS' planned admissions algorithm to identify and exclude planned readmissions. In addition to using the methodology to exclude planned readmissions from the proposed shared savings mechanism, HSCRC staff will make a technical modification to CPE logic and employ the planned readmissions algorithm to identify planned readmissions for assigning cases as initial or readmissions.

In Figure 11, we present how the consideration for planned readmissions will apply in our ARR logic. In the current logic, we consider a planned readmission within 30 days of an initial admission as a readmission. In the modified logic, the HSCRC would identify the planned readmission and consider the planned readmission as a new initial admission. Note that subsequent readmissions within 30 days of the planned readmission will be considered a readmission of the planned readmission.

**Figure 11: Current and Proposed Logic for Planned Readmissions**



## Appendix A MHA Discussion Document



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### HSCRC Admission Readmission Revenue Program

#### Principles and Recommendations for Modified Program

March 21, 2013

Maryland hospitals are committed to reducing hospital readmissions as one component of a broader movement to achieving a three-part aim of improving patient experience of care, improving population health and reducing the cost of health care. The HSCRC's Admission Readmission Revenue program is a tool that helps to align financial incentives and patient care incentives. In modifying the current structure of the Admission Readmission Revenue program, the hospital field recommends the following when considering modifications to the methodology:

#### Principles and Recommendations

1. **Continue to align the financial and clinical incentives to reduce readmissions through the ARR program.** The ARR program provides savings to Medicare and other payers and at the same time aligns the financial and clinical incentives to reduce readmissions. The Centers for Medicare & Medicaid Services' readmissions payment policy is a simple penalty that fails to recognize the significant savings accruing to Medicare as a result of readmission and other utilization reductions not measured under the program. As a result, the national program incentive is weaker than the aligned incentives in the Maryland program.
2. **Simplify the methodology** so that it is easier for clinicians to understand and easier for financial staff to value the reduction in readmissions. Separating the rate component from the readmissions and savings calculations makes it easier to monitor status, calculate actual savings and easier to dialogue with clinicians. However, the drawback of applying the ARR calculation as a year-end adjustment is that hospitals must wait until the next fiscal year to recognize their portion of the shared savings. **For fiscal 2014, MHA is recommending hospitals continue to be able to recognize their portion of the readmissions savings as it occurs throughout the fiscal year.**
3. **Establish in advance penalties and rewards** based on performance so that hospitals can track progress relative to rewards or penalties during the year. Penalties and rewards that depend on a hospital's performance relative to other hospitals are less predictable, and should be avoided, if possible. Specifically, for fiscal 2014:
  - a. Establish readmission targets to match the time period and one day stay inclusion planned for case-mix measurement. (For FY 2014 using FY 12 to CY 12 data.)
  - b. Determine targeted readmission reductions using average readmissions—including increases and decreases, and adjust to hit 0.3 percent inpatient revenue target. It appears coincidental that the application of the 3.78 percent readmission reduction resulted in a 0.32 percent savings—almost exactly what is required by Medicare.

## Appendix A MHA Discussion Document

- c. Remove revenue from rates effective July 1, 2013 using an absolute dollar amount. Removing a dollar amount will ensure that individual hospital adjustments for readmissions will be easily identified as actual volume and case-mix experiences occur.
  - d. Settle actual readmission reductions with targeted savings using data periods that match the case-mix timing. (For FY 15, using CY 12 to CY 13.)
4. **Exclude planned readmissions** to begin narrowing the measurement to unnecessary readmissions—a point especially important to clinicians. The national Hospital Wide Readmission measure uses an algorithm to identify and exclude planned readmissions. This algorithm could be a starting point for excluding planned readmissions in the Maryland Admission Readmission Revenue program. Rehabilitation and chemotherapy readmissions are examples of planned readmissions that should be excluded.
5. **Changes to the ARR methodology should be considered interim until a new waiver model is in place.** It is anticipated that a new waiver model will evaluate Maryland performance on total inpatient and outpatient spending per person. Reducing unnecessary readmissions is one way to move toward a total spending per person target, and a separate readmissions payment methodology should be consistent with any payment policies under a new waiver and not redundant.
6. **Re-evaluate each year** the performance goals or benchmarks and how hospitals' status relative to goals and benchmarks translate into penalties and rewards. As hospitals continue to reduce readmissions, a point will be reached where substantial readmission reductions are not clinically beneficial or achievable. Hospitals that have achieved a clinically optimal number of readmissions should not be penalized by the program. It is not completely clear how to determine the clinically optimal number or rate of readmissions; however, it is known that readmission rates vary by payer mix, presence of a behavioral health or substance abuse diagnosis, patient's age and socioeconomic status, in addition to variation by case-mix and severity of illness.
  - a. Consider differential improvement targets based on individual hospitals' opportunity to reduce readmissions. This may take the form of an attainment and improvement methodology, or different rates of targeted improvement depending on factors such as payer mix, disproportionate share, and progress in readmission reductions already made.
  - b. Statewide shared savings amounts also need to be re-evaluated each year as Maryland approaches an optimal level of readmissions. Although the optimal level of readmissions is not known, comparisons to national Medicare readmissions or to potentially preventable readmission rates in other states may provide insight into ideal numbers of readmissions in Maryland.

**Appendix B**  
**Current and Proposal Categorical Exclusions**

<b>CURRENT CATEGORICAL EXCLUSIONS:</b>	<b>PROPOSED CATEGORICAL EXCLUSIONS:</b>
ILIZAROV Cases = Only at Sinai - Drs. Paley, Herzenberg, Conway & Standard <ul style="list-style-type: none"> <li>• Any procedure - from 781 to 789 - Limb lengthening/shortening procedures</li> <li>• Operating Physician Numbers (ghost) = 000058 015343 726722 609489</li> </ul>	<i>No modification</i>
SOLID ORGAN TRANSPLANTS APR DRGS = 001 or 002 or 003 or 006 or 440 (ANY PROCEDURE = 5280 OR 5282 OR 5283 OR ANY PROCEDURE = 5280 OR 5282 OR 5283 OR 4100 OR 4101 OR 4102 OR 4103 OR 4104 OR 4105 OR 4106 OR 4107 OR 4108 OR 375 (through 09/30/2003) 3751 (after 10/01/2003) Heart Transplantation 4109 OR 336 OR 3350 OR 3351 OR 3352 OR 5569 OR 5561 OR 5281 OR 5051 OR 5059)	<i>No modification</i>
Melodysplastic - Any Diagnosis = 2387 for Johns Hopkins Oncology Center	<i>No modification</i>
JH Bayview Burn Center (Type of Daily Service = 7)	<i>No modification</i>
JH Hospital Pediatric Burn Cases (Age < 18) - 3rd Degree Burns	<i>No modification</i>
JH Oncology Center and U of Maryland Cancer Center <ul style="list-style-type: none"> <li>A. Transplant Cases (Reserve Flag = 1)</li> <li>B. Research Cases (Reserve Flag = 2)</li> <li>C. Hemotological Cases (Reserve Flag = 3)</li> <li>D. Transfer In Cases (Reserve Flag = 4)</li> </ul>	<i>No modification</i>
Denied Admissions (provided as standalone submissions to the Commission quarterly)	<i>No modification</i>
Zero and one day stay (LOS less than 2)	<b>Remove this exclusion</b>
Contracted hospice cases (Type of Daily Service = 10)	<b>Add this exclusion</b>
Palliative Care (secondary diagnosis codes as V66.7)	<b>Exclusion under consideration</b>

**Figure 4 - Calculation of Shared Savings Based on Inpatient Revenue Savings of 0.3% of Total Inpatient Revenue**

Hospital ID	Hospital Name	Payment Type	*Rate Year 2013 Charge Target Information			FY12 Total Admissions (Including One Day Stays)	Average Approved Charge	FY12 Risk Adjusted Rate	Risk Adjusted Reduction Rate (Reduction Rate of 3.50%)	Reduced Readmission Rate for FY13	Risk Adjusted Number of Readmission in FY12	Risk Adjusted Number of Readmissions for FY13	Reduction in Readmissions for FY13	Shared Savings	Percent Reduction in Rate Year 2013 Approved Revenue
			Number of Included Cases	CPC/CPE Target	Approved Revenue under CPC/CPE Target										
			A	B	C = A*B										
210002	Univ. of Maryland Medical System	ARR	20,191	\$29,726	\$600,197,666	28,180	\$21,299	8.59%	0.3005%	8.28%	2,419	2,335	(85)	-1,803,502	-0.3005%
210003	Prince Georges Hospital	CPC	11,879	\$13,739	\$163,205,581	13,524	\$12,068	6.80%	0.2380%	6.56%	920	888	(32)	-388,454	-0.2380%
210004	Holy Cross Hospital of Silver Spring	ARR	30,114	\$9,176	\$276,326,064	36,102	\$7,654	8.21%	0.2872%	7.92%	2,962	2,859	(104)	-793,563	-0.2872%
210005	Frederick Memorial Hospital	ARR	16,341	\$10,361	\$169,309,101	21,085	\$8,030	9.64%	0.3374%	9.30%	2,033	1,961	(71)	-571,235	-0.3374%
210006	Harford Memorial Hospital	ARR	3,904	\$10,885	\$42,495,040	5,279	\$8,050	8.42%	0.2946%	8.12%	444	429	(16)	-125,170	-0.2946%
210007	St. Josephs Hospital	ARR	13,989	\$12,911	\$180,611,979	18,144	\$9,954	7.76%	0.2714%	7.48%	1,407	1,358	(49)	-490,246	-0.2714%
210008	Mercy Medical Center, Inc.	ARR	15,169	\$12,654	\$191,948,526	19,146	\$10,026	8.37%	0.2931%	8.08%	1,603	1,547	(56)	-562,572	-0.2931%
210009	Johns Hopkins Hospital	ARR	32,298	\$25,008	\$807,708,384	45,148	\$17,890	9.58%	0.3352%	9.24%	4,324	4,172	(151)	-2,707,358	-0.3352%
210011	St. Agnes Hospital	ARR	15,733	\$13,333	\$209,768,089	20,603	\$10,181	8.32%	0.2914%	8.03%	1,715	1,655	(60)	-611,207	-0.2914%
210012	Sinai Hospital	ARR	21,402	\$16,960	\$362,977,920	28,821	\$12,594	8.95%	0.3133%	8.64%	2,580	2,490	(90)	-1,137,197	-0.3133%
210013	Bon Secours Hospital	ARR	5,066	\$13,953	\$70,685,898	6,659	\$10,615	9.21%	0.3222%	8.88%	613	592	(21)	-227,746	-0.3222%
210015	Franklin Square Hospital	ARR	18,614	\$12,987	\$241,740,018	24,346	\$9,929	9.11%	0.3188%	8.79%	2,218	2,140	(78)	-770,668	-0.3188%
210016	Washington Adventist Hospital	ARR	11,817	\$13,118	\$155,015,406	15,240	\$10,172	7.85%	0.2749%	7.58%	1,197	1,155	(42)	-426,076	-0.2749%
210018	Montgomery General Hospital	ARR	7,703	\$10,352	\$79,741,456	9,793	\$8,143	8.44%	0.2953%	8.14%	826	797	(29)	-235,441	-0.2953%
210019	Peninsula Regional Medical Center	ARR	16,602	\$13,219	\$219,461,838	21,065	\$10,418	8.89%	0.3112%	8.58%	1,873	1,808	(66)	-683,003	-0.3112%
210022	Suburban Hospital Association, Inc	ARR	10,041	\$15,056	\$151,177,296	13,735	\$11,007	7.54%	0.2640%	7.28%	1,036	1,000	(36)	-399,163	-0.2640%
210023	Anne Arundel General Hospital	ARR	24,803	\$10,118	\$250,956,754	33,077	\$7,587	9.19%	0.3218%	8.87%	3,041	2,935	(106)	-807,572	-0.3218%
210024	Union Memorial Hospital	ARR	10,775	\$20,021	\$215,726,275	14,878	\$14,500	8.46%	0.2960%	8.16%	1,258	1,214	(44)	-638,594	-0.2960%
210028	St. Marys Hospital	ARR	6,070	\$8,871	\$53,846,970	8,578	\$6,277	10.69%	0.3741%	10.31%	917	885	(32)	-201,417	-0.3741%
210029	Johns Hopkins Bayview Med. Center	ARR	16,784	\$14,831	\$248,923,504	21,526	\$11,564	9.54%	0.3338%	9.20%	2,053	1,981	(72)	-830,942	-0.3338%
210034	Harbor Hospital Center	ARR	8,552	\$13,590	\$116,221,680	11,545	\$10,067	8.27%	0.2895%	7.98%	955	922	(33)	-336,506	-0.2895%
210035	Civista Medical Center	ARR	6,074	\$10,005	\$60,770,370	7,693	\$7,899	8.48%	0.2968%	8.18%	652	630	(23)	-180,394	-0.2968%
210038	Maryland General Hospital	ARR	7,235	\$14,626	\$105,819,110	9,356	\$11,310	8.56%	0.2996%	8.26%	801	773	(28)	-317,064	-0.2996%
210040	Northwest Hospital Center, Inc.	ARR	9,611	\$12,626	\$121,348,486	13,493	\$8,993	9.98%	0.3492%	9.63%	1,346	1,299	(47)	-423,705	-0.3492%
210043	Baltimore Washington Medical Center	ARR	14,105	\$13,092	\$184,662,660	19,169	\$9,633	9.13%	0.3195%	8.81%	1,750	1,688	(61)	-589,948	-0.3195%
210044	Greater Baltimore Medical Center	ARR	18,486	\$10,007	\$184,989,402	22,337	\$8,282	7.03%	0.2459%	6.78%	1,570	1,515	(55)	-454,953	-0.2459%
210048	Howard County General Hospital	ARR	15,573	\$9,426	\$146,791,098	18,718	\$7,842	8.28%	0.2897%	7.99%	1,549	1,495	(54)	-425,240	-0.2897%
210049	Upper Chesapeake Medical Center	ARR	10,936	\$10,554	\$115,418,544	14,671	\$7,867	8.65%	0.3027%	8.34%	1,269	1,224	(44)	-349,321	-0.3027%
210051	Doctors Community Hospital	ARR	8,778	\$13,612	\$119,486,136	11,868	\$10,068	8.11%	0.2839%	7.83%	963	929	(34)	-339,272	-0.2839%
210054	Southern Maryland Hospital	CPC	15,226	\$9,532	\$145,134,232	17,919	\$8,099	8.74%	0.3060%	8.44%	1,566	1,512	(55)	-444,050	-0.3060%
210055	Laurel Regional Hospital	CPC	5,798	\$9,203	\$53,358,994	6,455	\$8,266	5.86%	0.2053%	5.66%	379	365	(13)	-109,528	-0.2053%
210056	Good Samaritan Hospital	ARR	10,553	\$16,387	\$172,932,011	14,854	\$11,642	10.26%	0.3592%	9.90%	1,524	1,471	(53)	-621,160	-0.3592%
210057	Shady Grove Adventist Hospital	ARR	21,067	\$9,269	\$195,270,023	26,075	\$7,489	8.25%	0.2886%	7.96%	2,150	2,075	(75)	-563,530	-0.2886%
210058	James Lawrence Kernan Hospital	ARR	2,656	\$17,263	\$45,850,528	2,983	\$15,371	3.22%	0.1126%	3.10%	96	93	(3)	-51,607	-0.1126%
210060	Fort Washington Medical Center	CPC	1,879	\$8,648	\$16,249,592	2,115	\$7,683	6.61%	0.2315%	6.38%	140	135	(5)	-37,618	-0.2315%
210061	Atlantic General Hospital	CPC	2,563	\$13,180	\$33,780,340	3,021	\$11,182	6.44%	0.2252%	6.21%	194	188	(7)	-76,085	-0.2252%
Total			468,387	\$13,899	\$6,509,906,971	607,201	\$10,721	8.69%	0.3042%	8.39%	52,344	50,511	(1,832)	-19,731,104	-0.3031%

\* Rate Year 2013 Charge Targets and Related Data Elements, Effective July 1, 2012

**Figure 5 - Calculation of Shared Savings Based on Inpatient Revenue Savings of 0.5% of Total Inpatient Revenue**

Hospital ID	Hospital Name	Payment Type	*Rate Year 2013 Charge Target Information			FY12 Total Admissions (Including One Day Stays)	Average Approved Charge	FY12 Risk Adjusted Rate	Risk Adjusted Reduction Rate (Reduction Rate of 5.85%)	Reduced Readmission Rate for FY13	Risk Adjusted Number of Readmission in FY12	Risk Adjusted Number of Readmissions for FY13	Reduction in Readmissions for FY13	Shared Savings	Percent Reduction in Rate Year 2013 Approved Revenue
			Number of Included Cases	CPC/CPE Target	Approved Revenue under CPC/CPE Target										
			A	B	C = A*B										
			D	E = C/D	F	G = F*5.85%	H = F-G	I = F*D	J = H*D	K = J-I	L = K*E	M = L/C			
210002	Univ. of Maryland Medical System	ARR	20,191	\$29,726	\$600,197,666	28,180	\$21,299	8.59%	0.5022%	8.08%	2,419	2,278	(142)	-3,014,424	-0.5022%
210003	Prince Georges Hospital	CPC	11,879	\$13,739	\$163,205,581	13,524	\$12,068	6.80%	0.3978%	6.40%	920	866	(54)	-649,272	-0.3978%
210004	Holy Cross Hospital of Silver Spring	ARR	30,114	\$9,176	\$276,326,064	36,102	\$7,654	8.21%	0.4800%	7.73%	2,962	2,789	(173)	-1,326,383	-0.4800%
210005	Frederick Memorial Hospital	ARR	16,341	\$10,361	\$169,309,101	21,085	\$8,030	9.64%	0.5639%	9.08%	2,033	1,914	(119)	-954,778	-0.5639%
210006	Harford Memorial Hospital	ARR	3,904	\$10,885	\$42,495,040	5,279	\$8,050	8.42%	0.4923%	7.92%	444	418	(26)	-209,213	-0.4923%
210007	St. Josephs Hospital	ARR	13,989	\$12,911	\$180,611,979	18,144	\$9,954	7.76%	0.4537%	7.30%	1,407	1,325	(82)	-819,411	-0.4537%
210008	Mercy Medical Center, Inc.	ARR	15,169	\$12,654	\$191,948,526	19,146	\$10,026	8.37%	0.4899%	7.88%	1,603	1,509	(94)	-940,299	-0.4899%
210009	Johns Hopkins Hospital	ARR	32,298	\$25,008	\$807,708,384	45,148	\$17,890	9.58%	0.5602%	9.02%	4,324	4,071	(253)	-4,525,155	-0.5602%
210011	St. Agnes Hospital	ARR	15,733	\$13,333	\$209,768,089	20,603	\$10,181	8.32%	0.4870%	7.84%	1,715	1,615	(100)	-1,021,588	-0.4870%
210012	Sinai Hospital	ARR	21,402	\$16,960	\$362,977,920	28,821	\$12,594	8.95%	0.5237%	8.43%	2,580	2,429	(151)	-1,900,744	-0.5237%
210013	Bon Secours Hospital	ARR	5,066	\$13,953	\$70,685,898	6,659	\$10,615	9.21%	0.5385%	8.67%	613	577	(36)	-380,661	-0.5385%
210015	Franklin Square Hospital	ARR	18,614	\$12,987	\$241,740,018	24,346	\$9,929	9.11%	0.5329%	8.58%	2,218	2,088	(130)	-1,288,117	-0.5329%
210016	Washington Adventist Hospital	ARR	11,817	\$13,118	\$155,015,406	15,240	\$10,172	7.85%	0.4594%	7.39%	1,197	1,127	(70)	-712,156	-0.4594%
210018	Montgomery General Hospital	ARR	7,703	\$10,352	\$79,741,456	9,793	\$8,143	8.44%	0.4935%	7.94%	826	778	(48)	-393,523	-0.4935%
210019	Peninsula Regional Medical Center	ARR	16,602	\$13,219	\$219,461,838	21,065	\$10,418	8.89%	0.5202%	8.37%	1,873	1,764	(110)	-1,141,591	-0.5202%
210022	Suburban Hospital Association, Inc	ARR	10,041	\$15,056	\$151,177,296	13,735	\$11,007	7.54%	0.4413%	7.10%	1,036	976	(61)	-667,172	-0.4413%
210023	Anne Arundel General Hospital	ARR	24,803	\$10,118	\$250,956,754	33,077	\$7,587	9.19%	0.5379%	8.66%	3,041	2,863	(178)	-1,349,798	-0.5379%
210024	Union Memorial Hospital	ARR	10,775	\$20,021	\$215,726,275	14,878	\$14,500	8.46%	0.4948%	7.96%	1,258	1,185	(74)	-1,067,364	-0.4948%
210028	St. Marys Hospital	ARR	6,070	\$8,871	\$53,846,970	8,578	\$6,277	10.69%	0.6252%	10.06%	917	863	(54)	-336,654	-0.6252%
210029	Johns Hopkins Bayview Med. Center	ARR	16,784	\$14,831	\$248,923,504	21,526	\$11,564	9.54%	0.5579%	8.98%	2,053	1,933	(120)	-1,388,859	-0.5579%
210034	Harbor Hospital Center	ARR	8,552	\$13,590	\$116,221,680	11,545	\$10,067	8.27%	0.4839%	7.79%	955	899	(56)	-562,445	-0.4839%
210035	Civista Medical Center	ARR	6,074	\$10,005	\$60,770,370	7,693	\$7,899	8.48%	0.4962%	7.99%	652	614	(38)	-301,516	-0.4962%
210038	Maryland General Hospital	ARR	7,235	\$14,626	\$105,819,110	9,356	\$11,310	8.56%	0.5008%	8.06%	801	754	(47)	-529,950	-0.5008%
210040	Northwest Hospital Center, Inc.	ARR	9,611	\$12,626	\$121,348,486	13,493	\$8,993	9.98%	0.5836%	9.39%	1,346	1,267	(79)	-708,193	-0.5836%
210043	Baltimore Washington Medical Center	ARR	14,105	\$13,092	\$184,662,660	19,169	\$9,633	9.13%	0.5340%	8.59%	1,750	1,647	(102)	-986,055	-0.5340%
210044	Greater Baltimore Medical Center	ARR	18,486	\$10,007	\$184,989,402	22,337	\$8,282	7.03%	0.4111%	6.62%	1,570	1,478	(92)	-760,421	-0.4111%
210048	Howard County General Hospital	ARR	15,573	\$9,426	\$146,791,098	18,718	\$7,842	8.28%	0.4842%	7.79%	1,549	1,459	(91)	-710,759	-0.4842%
210049	Upper Chesapeake Medical Center	ARR	10,936	\$10,554	\$115,418,544	14,671	\$7,867	8.65%	0.5059%	8.14%	1,269	1,194	(74)	-583,865	-0.5059%
210051	Doctors Community Hospital	ARR	8,778	\$13,612	\$119,486,136	11,868	\$10,068	8.11%	0.4746%	7.64%	963	906	(56)	-567,068	-0.4746%
210054	Southern Maryland Hospital	CPC	15,226	\$9,532	\$145,134,232	17,919	\$8,099	8.74%	0.5114%	8.23%	1,566	1,475	(92)	-742,197	-0.5114%
210055	Laurel Regional Hospital	CPC	5,798	\$9,203	\$53,358,994	6,455	\$8,266	5.86%	0.3431%	5.52%	379	356	(22)	-183,068	-0.3431%
210056	Good Samaritan Hospital	ARR	10,553	\$16,387	\$172,932,011	14,854	\$11,642	10.26%	0.6004%	9.66%	1,524	1,435	(89)	-1,038,225	-0.6004%
210057	Shady Grove Adventist Hospital	ARR	21,067	\$9,269	\$195,270,023	26,075	\$7,489	8.25%	0.4824%	7.76%	2,150	2,024	(126)	-941,900	-0.4824%
210058	James Lawrence Kernan Hospital	ARR	2,656	\$17,263	\$45,850,528	2,983	\$15,371	3.22%	0.1881%	3.03%	96	90	(6)	-86,258	-0.1881%
210060	Fort Washington Medical Center	CPC	1,879	\$8,648	\$16,249,592	2,115	\$7,683	6.61%	0.3869%	6.23%	140	132	(8)	-62,876	-0.3869%
210061	Atlantic General Hospital	CPC	2,563	\$13,180	\$33,780,340	3,021	\$11,182	6.44%	0.3765%	6.06%	194	183	(11)	-127,170	-0.3765%
Total			468,387	\$13,899	\$6,509,906,971	607,201	\$10,721	8.69%	0.5085%	8.18%	52,344	49,281	(3,062)	-32,979,131	-0.5066%

\* Rate Year 2013 Charge Targets and Related Data Elements, Effective July 1, 2012

**Figure 9 - Proposed Statewide and Current Hospital Specific High Trimmed Cases and Charges  
Using Calendar Year 2011 Data**

HOSPID	HOSPITAL NAME	PAYMENT TYPE	PROPOSED STATEWIDE LOW TRIM		PROPOSED STATEWIDE HIGH TRIM		**CURRENT HOSPITAL SPECIFIC HIGH TRIM	
			NUMBER OF CASES	CHARGES	NUMBER OF CASES	CHARGES	NUMBER OF CASES	CHARGES
	B	C	D	E	F	G	H	I
210001	Meritus Medical Center	TPR	27	\$47,499	58	\$1,363,976	128	\$2,060,300
210002	Univ. of Maryland Medical System	ARR	19	\$54,244	671	\$20,974,965	411	\$29,829,658
210003	Prince Georges Hospital	CPC	5	\$13,159	117	\$2,322,680	111	\$2,814,259
210004	Holy Cross Hospital of Silver Spring	ARR	71	\$155,632	130	\$2,893,649	267	\$6,234,850
210005	Frederick Memorial Hospital	ARR	16	\$27,367	70	\$1,173,417	164	\$2,465,812
210006	Harford Memorial Hospital	ARR	2	\$4,023	34	\$876,863	74	\$1,434,069
210007	St. Josephs Hospital	ARR	8	\$14,927	67	\$895,983	144	\$2,442,451
210008	Mercy Medical Center, Inc.	ARR	6	\$6,018	85	\$1,322,622	136	\$2,343,150
210009	Johns Hopkins Hospital	ARR	22	\$108,933	1,604	\$48,250,785	983	\$49,507,920
210010	Dorchester General Hospital	TPR	2	\$4,717	20	\$429,947	33	\$565,719
210011	St. Agnes Hospital	ARR	12	\$29,466	89	\$2,341,406	140	\$3,529,906
210012	Sinai Hospital	ARR	22	\$37,651	120	\$2,810,856	174	\$5,864,876
210013	Bon Secours Hospital	ARR	2	\$4,660	25	\$370,852	39	\$675,981
210015	Franklin Square Hospital	ARR	7	\$23,126	97	\$2,021,420	140	\$3,505,499
210016	Washington Adventist Hospital	ARR	8	\$31,095	82	\$1,739,895	140	\$3,046,925
210017	Garrett County Memorial Hospital	TPR	2	\$3,530	1	\$6,844	12	\$40,060
210018	Montgomery General Hospital	ARR	13	\$25,386	27	\$514,842	60	\$1,201,920
210019	Peninsula Regional Medical Center	ARR	13	\$26,932	52	\$1,446,978	149	\$2,972,842
210022	Suburban Hospital Association, Inc	ARR	6	\$11,784	49	\$1,003,007	109	\$2,009,904
210023	Anne Arundel General Hospital	ARR	54	\$87,639	92	\$1,495,106	206	\$3,125,130
210024	Union Memorial Hospital	ARR	7	\$12,953	75	\$2,057,074	114	\$2,838,525
210027	Sacred Heart Hospital	TPR	5	\$9,307	80	\$1,587,545	116	\$2,211,798
210028	St. Marys Hospital	ARR	2	\$6,690	19	\$191,685	50	\$445,415
210029	Johns Hopkins Bayview Med. Center	ARR	14	\$20,070	219	\$4,896,223	201	\$4,997,226
210030	Chester River Hospital Center	TPR	1	\$1,003	17	\$261,246	21	\$350,163
210032	Union Hospital of Cecil County	TPR	11	\$14,907	36	\$792,532	69	\$1,119,738
210033	Carroll County General Hospital	TPR	5	\$7,430	39	\$471,780	67	\$651,516
210034	Harbor Hospital Center	ARR	9	\$18,720	72	\$1,050,587	85	\$1,732,993
210035	Civista Medical Center	ARR	5	\$10,426	7	\$82,511	33	\$335,084
210037	Memorial Hospital at Easton	TPR	4	\$3,543	34	\$599,206	58	\$1,081,880
210038	Maryland General Hospital	ARR	3	\$4,579	33	\$589,767	47	\$1,105,448
210039	Calvert Memorial Hospital	TPR	17	\$21,392	17	\$325,741	35	\$499,303
210040	Northwest Hospital Center, Inc.	ARR	2	\$4,867	41	\$648,766	68	\$901,331
210043	Baltimore Washington Medical Center	ARR	42	\$55,486	55	\$1,130,685	160	\$2,978,554
210044	Greater Baltimore Medical Center	ARR	5	\$18,472	72	\$1,051,337	174	\$3,227,676
210045	McCreedy Foundation, Inc.	TPR	0	\$0	3	\$894,755	5	\$909,100
210048	Howard County General Hospital	ARR	13	\$23,305	77	\$1,171,009	137	\$2,148,728
210049	Upper Chesapeake Medical Center	ARR	8	\$12,998	22	\$292,115	81	\$1,232,063
210051	Doctors Community Hospital	ARR	5	\$8,578	45	\$850,475	100	\$2,136,336
210054	Southern Maryland Hospital	CPC	24	\$28,009	68	\$907,576	133	\$1,735,715
210055	Laurel Regional Hospital	CPC	9	\$15,104	15	\$216,229	36	\$506,156
210056	Good Samaritan Hospital	ARR	11	\$28,006	37	\$665,253	74	\$1,305,437
210057	Shady Grove Adventist Hospital	ARR	9	\$21,161	88	\$1,237,707	201	\$3,051,671
210058	James Lawrence Kernan Hospital	ARR	10	\$17,247	13	\$287,067	44	\$812,048
210060	Fort Washington Medical Center	CPC	0	\$0	0	\$0	9	\$36,871
210061	Atlantic General Hospital	CPC	3	\$16,072	3	\$19,240	18	\$165,858
STATEWIDE TOTAL			541	\$1,098,113	4,677	\$116,534,206	5,756	\$164,187,865

Data Source: Calendar Year 2011 HSCRC Inpatient Casemix Data grouped with APR DRG Group 29.

Proposed Hospital Specific Low and High Trimmed Cases and Charges include Short Stay Cases.

All High Trim Cases and Charges include MDC 19 separate and distinct Trim Logic

\*\*Each hospital's APR DRG/ Severity High Trim limit is calculated as the hospital's CPC adjusted for the hospital base CMI multiplied by the statewide APR DRG/ Severity weight multiplied by 3.5155, with a "Deadzone" of \$100,000 (Short Stay Cases excluded).

\* A "deadzone" is the portion of a hospital's charges between its approved charges in a given APR-DRG/Severity cell and the Outlier High Trim Limit of that cell, within which the hospital receives no rate capacity and therefore subject to a revenue loss. A "deadzone adjustment" is as a stop-loss provision.



**Figure 10 - Proposed Statewide and Statewide with "\*Deadzone" Trimmed Cases and Charges Using Calendar Year 2011 Data**

HOSPID	HOSPITAL NAME	PAYMENT TYPE	PROPOSED STATEWIDE LOW TRIM		PROPOSED STATEWIDE HIGH TRIM		STATEWIDE LOW TRIM (WITH DEADZONE)		**STATEWIDE HIGH TRIM (WITH DEADZONE)	
			NUMBER OF CASES	CHARGES	NUMBER OF CASES	CHARGES	NUMBER OF CASES	CHARGES	NUMBER OF CASES	CHARGES
A	B	C	D	E	F	G	H	I	J	K
210001	Meritus Medical Center	TPR	27	\$47,499	58	\$1,363,976	27	\$47,499	66	\$1,536,289
210002	Univ. of Maryland Medical System	ARR	19	\$54,244	671	\$20,974,965	19	\$54,244	1,015	\$57,616,944
210003	Prince Georges Hospital	CPC	5	\$13,159	117	\$2,322,680	5	\$13,159	146	\$4,049,224
210004	Holy Cross Hospital of Silver Spring	ARR	71	\$155,632	130	\$2,893,649	71	\$155,632	157	\$5,033,516
210005	Frederick Memorial Hospital	ARR	16	\$27,367	70	\$1,173,417	16	\$27,367	73	\$1,395,691
210006	Harford Memorial Hospital	ARR	2	\$4,023	34	\$876,863	2	\$4,023	36	\$905,636
210007	St. Josephs Hospital	ARR	8	\$14,927	67	\$895,983	8	\$14,927	89	\$1,946,519
210008	Mercy Medical Center, Inc.	ARR	6	\$6,018	85	\$1,322,622	6	\$6,018	103	\$2,448,364
210009	Johns Hopkins Hospital	ARR	22	\$108,933	1,604	\$48,250,785	22	\$108,933	1,948	\$86,723,801
210010	Dorchester General Hospital	TPR	2	\$4,717	20	\$429,947	2	\$4,717	20	\$429,947
210011	St. Agnes Hospital	ARR	12	\$29,466	89	\$2,341,406	12	\$29,466	108	\$4,060,153
210012	Sinai Hospital	ARR	22	\$37,651	120	\$2,810,856	22	\$37,651	181	\$7,687,863
210013	Bon Secours Hospital	ARR	2	\$4,660	25	\$370,852	2	\$4,660	30	\$513,243
210015	Franklin Square Hospital	ARR	7	\$23,126	97	\$2,021,420	7	\$23,126	111	\$3,538,157
210016	Washington Adventist Hospital	ARR	8	\$31,095	82	\$1,739,895	8	\$31,095	98	\$2,940,087
210017	Garrett County Memorial Hospital	TPR	2	\$3,530	1	\$6,844	2	\$3,530	1	\$6,844
210018	Montgomery General Hospital	ARR	13	\$25,386	27	\$514,842	13	\$25,386	25	\$783,768
210019	Peninsula Regional Medical Center	ARR	13	\$26,932	52	\$1,446,978	13	\$26,932	65	\$2,072,877
210022	Suburban Hospital Association, Inc	ARR	6	\$11,784	49	\$1,003,007	6	\$11,784	53	\$1,354,713
210023	Anne Arundel General Hospital	ARR	54	\$87,639	92	\$1,495,106	54	\$87,639	101	\$2,108,867
210024	Union Memorial Hospital	ARR	7	\$12,953	75	\$2,057,074	7	\$12,953	103	\$3,074,580
210027	Sacred Heart Hospital	TPR	5	\$9,307	80	\$1,587,545	5	\$9,307	85	\$1,732,082
210028	St. Marys Hospital	ARR	2	\$6,690	19	\$191,685	2	\$6,690	19	\$191,685
210029	Johns Hopkins Bayview Med. Center	ARR	14	\$20,070	219	\$4,896,223	14	\$20,070	251	\$6,451,100
210030	Chester River Hospital Center	TPR	1	\$1,003	17	\$261,246	1	\$1,003	20	\$328,302
210032	Union Hospital of Cecil County	TPR	11	\$14,907	36	\$792,532	11	\$14,907	37	\$813,854
210033	Carroll County General Hospital	TPR	5	\$7,430	39	\$471,780	5	\$7,430	41	\$505,677
210034	Harbor Hospital Center	ARR	9	\$18,720	72	\$1,050,587	9	\$18,720	79	\$1,690,373
210035	Civista Medical Center	ARR	5	\$10,426	7	\$82,511	5	\$10,426	9	\$211,932
210037	Memorial Hospital at Easton	TPR	4	\$3,543	34	\$599,206	4	\$3,543	36	\$813,883
210038	Maryland General Hospital	ARR	3	\$4,579	33	\$589,767	3	\$4,579	49	\$1,607,952
210039	Calvert Memorial Hospital	TPR	17	\$21,392	17	\$325,741	17	\$21,392	18	\$342,345
210040	Northwest Hospital Center, Inc.	ARR	2	\$4,867	41	\$648,766	2	\$4,867	45	\$820,017
210043	Baltimore Washington Medical Center	ARR	42	\$55,486	55	\$1,130,685	42	\$55,486	76	\$2,128,996
210044	Greater Baltimore Medical Center	ARR	5	\$18,472	72	\$1,051,337	5	\$18,472	90	\$2,481,610
210045	McCready Foundation, Inc.	TPR	0	\$0	3	\$894,755	0	\$0	3	\$894,755
210048	Howard County General Hospital	ARR	13	\$23,305	77	\$1,171,009	13	\$23,305	81	\$1,410,057
210049	Upper Chesapeake Medical Center	ARR	8	\$12,998	22	\$292,115	8	\$12,998	28	\$790,169
210051	Doctors Community Hospital	ARR	5	\$8,578	45	\$850,475	5	\$8,578	56	\$1,680,669
210054	Southern Maryland Hospital	CPC	24	\$28,009	68	\$907,576	24	\$28,009	67	\$1,017,303
210055	Laurel Regional Hospital	CPC	9	\$15,104	15	\$216,229	9	\$15,104	18	\$238,215
210056	Good Samaritan Hospital	ARR	11	\$28,006	37	\$665,253	11	\$28,006	45	\$962,263
210057	Shady Grove Adventist Hospital	ARR	9	\$21,161	88	\$1,237,707	9	\$21,161	95	\$1,629,429
210058	James Lawrence Kernan Hospital	ARR	10	\$17,247	13	\$287,067	10	\$17,247	13	\$287,067
210060	Fort Washington Medical Center	CPC	0	\$0	0	\$0	0	\$0	0	\$0
210061	Atlantic General Hospital	CPC	3	\$16,072	3	\$19,240	3	\$16,072	4	\$80,760
STATEWIDE TOTAL			541	\$1,098,113	4,677	\$116,534,206	541	\$1,098,113	5,794	\$219,337,578

Data Source: Calendar Year 2011 HSCRC Inpatient Casemix Data grouped with APR DRG Group 29.

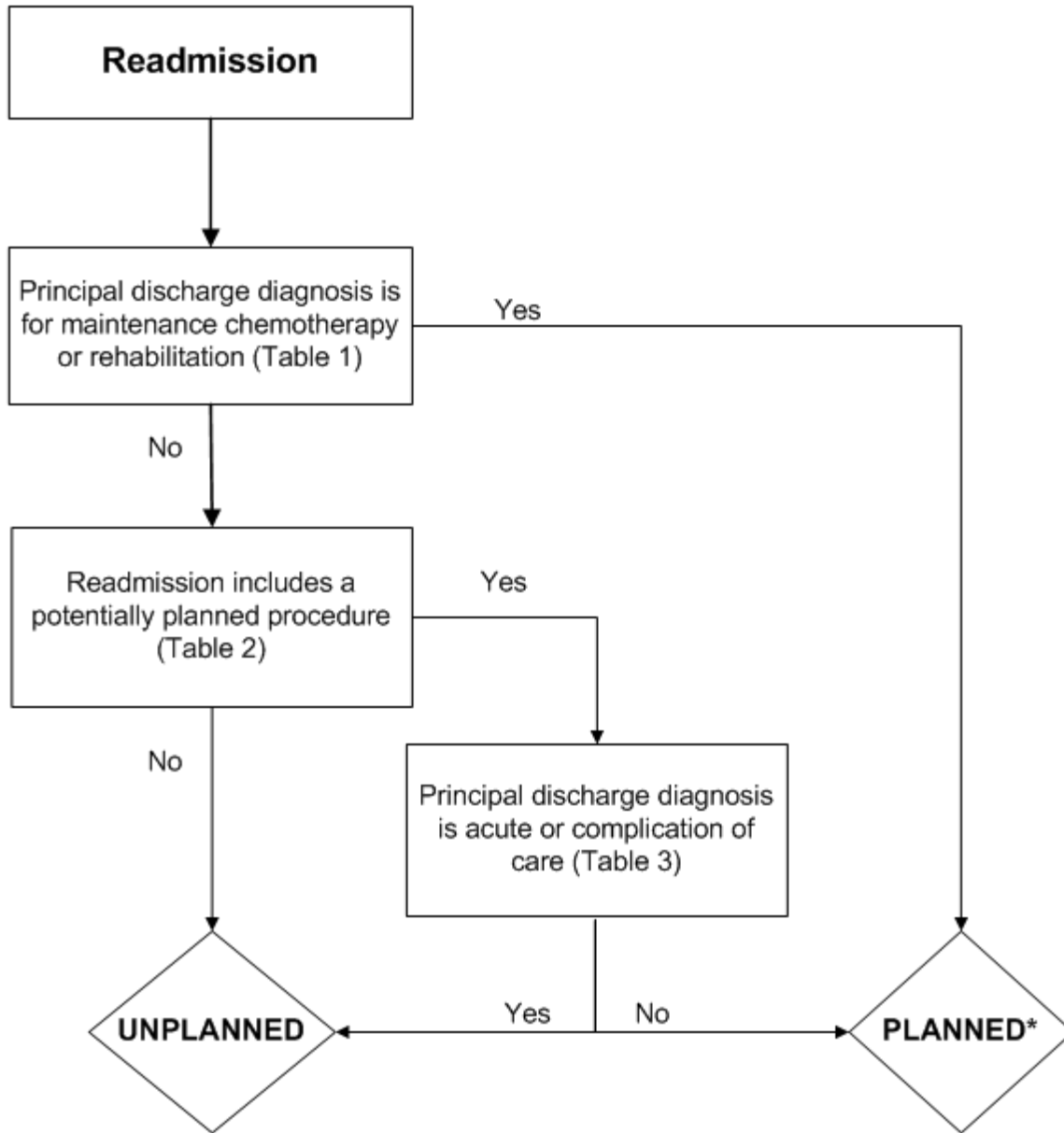
Hospital Low and High Trimmed Cases and Charges include One Day Stays

All High Trim Cases and Charges include MDC 19 separate and distinct Trim Logic

\*\* Each APR DRG/ Severity high trim cell is limited to a minimum \$10,000 loss and a "dead-zone" of \$100,000

\* A "deadzone" is the portion of a hospital's charges between its approved charges in a given APR-DRG/Severity cell and the Outlier High Trim Limit of that cell, within which the hospital receives no rate capacity and therefore subject to a revenue loss. A "deadzone adjustment" is as a stop-loss provision.

## Hospital-Wide All-Cause Unplanned Readmission Measure Planned Readmissions Algorithm Flow Diagram



\*Planned readmissions are **not** counted as outcomes in the measure

For more information, please visit the Hospital-wide Readmission Measure page at <https://www.QualityNet.org/> (Hospitals – Inpatient > Claims-Based Measures > Hospital-wide and Hip/Knee Measures > Hospital-wide Readmission Measure).

**Table 1. Diagnoses that are always considered planned regardless of procedure**

<b>AHRQ Diagnosis CCS</b>	<b>Description</b>
45	Maintenance Chemotherapy
254	Rehabilitation

**Table 2. Potentially planned procedures, if accompanied by non-acute diagnosis**

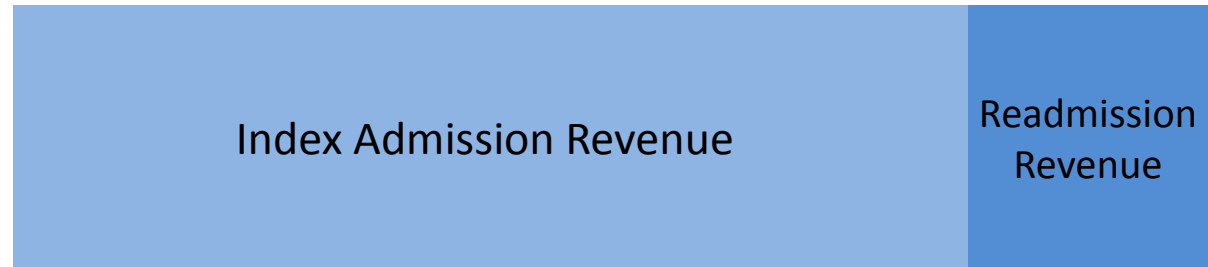
<b>AHRQ Procedure CCS</b>	<b>Description</b>
1	Incision and excision of CNS
3	Laminectomy; excision intervertebral disc
10	Thyroidectomy; partial or complete
36	Lobectomy or pneumonectomy
43	Heart valve procedures
44	Coronary artery bypass graft (CABG)
45	Percutaneous transluminal coronary angioplasty (PTCA)
48	Insertion; revision; replacement; removal of cardiac pacemaker or cardioverter/defibrillator
51	Endarterectomy; vessel of head and neck
52	Aortic resection; replacement or anastomosis
55	Peripheral vascular bypass
60	Embolectomy and endarterectomy of lower limbs
64	Bone marrow transplant
74	Gastrectomy; partial and total
78	Colorectal resection
84	Cholecystectomy and common duct exploration
85	Inguinal and femoral hernia repair
99	Other OR gastrointestinal therapeutic procedures
104	Nephrectomy; partial or complete
105	Kidney transplant
113	Transurethral resection of prostate (TURP)
114	Open prostatectomy
119	Oophorectomy; unilateral and bilateral
124	Hysterectomy; abdominal and vaginal
152	Arthroplasty knee
153	Hip replacement; total and partial
154	Arthroplasty other than hip or knee
157	Amputation of lower extremity
158	Spinal fusion
166	Lumpectomy; quadrantectomy of breast
167	Mastectomy
176	Other organ transplantation
211	Therapeutic radiology for cancer treatment
<b>ICD-9 Code</b>	<b>Description</b>
30.4, 31.74, 34.6	Radical laryngectomy, revision of tracheostomy, scarification of pleura
94.26, 94.27	Electroshock therapy

**Table 3. Discharge condition categories considered acute or complications of care**

AHRQ Diagnosis CCS	Description
2	Septicemia (except in labor)
55	Fluid and electrolyte disorders
97	Peri-; endo-; and myocarditis; cardiomyopathy
100	Acute myocardial infarction
105	Conduction disorders
106	Cardiac dysrhythmias
108	Congestive heart failure; nonhypertensive
109	Acute cerebrovascular disease
112	Transient cerebral ischemia
116	Aortic and peripheral arterial embolism or thrombosis
122	Pneumonia (except that caused by TB or sexually transmitted disease)
127	Chronic obstructive pulmonary disease and bronchiectasis
130	Pleurisy; pneumothorax; pulmonary collapse
131	Respiratory failure; insufficiency; arrest (adult)
139	Gastroduodenal ulcer (except hemorrhage)
145	Intestinal obstruction without hernia
146	Diverticulosis and diverticulitis
153	Gastrointestinal hemorrhage
157	Acute and unspecified renal failure
159	Urinary tract infections
160	Calculus of urinary tract
201	Infective arthritis and osteomyelitis (except that caused by TB or sexually transmitted disease)
233	Intracranial injury
237	Complication of device; implant or graft
238	Complications of surgical procedures or medical care
245	Syncope
	Fracture (condition CCS 207, 225, 226, 227, 229, 230, 231, 232)

# ARR Shared Savings Concept

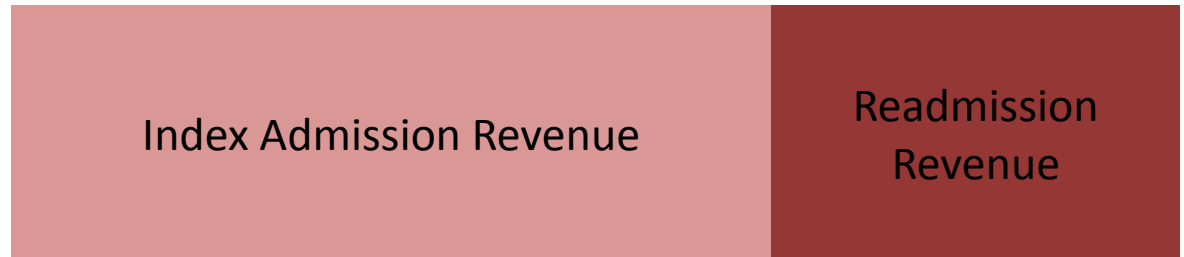
Hospital A



Percent Readmission=10%

Shared Savings=10%\***3%**=0.3% of Total Inpatient Revenue

Hospital B



Percent Readmission=20%

Shared Savings=20%\***3%**=0.6% of Total Inpatient Revenue

# **HSCRC Admission-Readmission Reduction Program Hospital Interventions**

Year 1 Findings

**MARCH 6, 2013**

**DRAFT REPORT**

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## Executive Summary

**Background.** Readmissions following an initial hospital episode are frequent, costly, and often preventable occurrences. In FY 2012, the Health Services Cost Review Commission (HSCRC) launched the Admission-Readmission Revenue Constraint program (ARR) to incentivize hospitals to reduce unnecessary readmissions to their facilities. Under the program, the HSCRC required the 31 participating hospitals to create intervention plans aimed at reducing readmissions and to develop and monitor at least two metrics to evaluate intervention effectiveness. During FY 2012, the HSCRC collected ARR hospitals' intervention plans. Beginning in December 2012, HSCRC staff collected hospitals' metric results and conducted a qualitative survey of hospital experiences in ARR Year 1. This paper discusses our findings.

**Results: Interventions and Metrics.** The most common types of interventions were discharge planning (24 hospitals), scheduling follow up appointments (21 hospitals), and telephone follow up (20 hospitals). While there were similarities across intervention strategies, the metrics used to monitor program effectiveness were diverse, which may be due to variation in hospitals' patient populations, internal systems, and staffing resources, among other factors. For example, 18 hospitals stated that they developed programs to improve medication management, but the metrics to monitor this intervention included medication reconciliation rates, medication error rates, proportion of medications received prior to discharge, and readmission rates. Most interventions were relevant to any admitted patient; however, some hospitals focused their interventions and/or metrics on known high-risk populations, such as individuals with heart failure, COPD, or diabetes with complications. The mean length of data collection for all metrics was 9.83 months, but the most common length of evaluation was 12 months.

**Results: Hospital Experiences.** All 31 ARR hospitals responded to HSCRC's qualitative experience survey. Overall, just over half of hospitals reported that it was either difficult or very difficult to implement their interventions and to monitor their metrics. Hospitals cited hiring and managing new staff, technical difficulty with measurement, and patient beliefs and behaviors as the primary barriers to successful intervention implementation. However, hospitals also reported that their new ARR measurement efforts helped them to understand the specific diagnostic categories of patients who were readmitted to their facilities, develop more thoughtful discharge planning and care coordination programs, and guide quality improvement efforts.

With regard to specific interventions, most hospitals reported success with risk assessment interventions and incorporation of multidisciplinary teams, such as ED case management programs. Primary care physician (PCP) communication and appointment scheduling were frequently cited as challenging for hospitals to implement, particularly for patient populations without identified PCPs, such as the uninsured or underinsured. Several hospitals cited improved coordination with SNFs as a priority. Hospitals consistently cited a lack of dedicated personnel from the SNF to promote handoff communication as a barrier for interventions designed to improve care coordination.

For FY 2013, few hospitals expect to make changes to the interventions and metrics currently in place. However, 39.1 percent of hospitals reported that they plan to develop new interventions or new metrics to further reduce readmission in ARR Year 2.

## Background to the Admission-Readmission Reduction (ARR) Program

Readmissions following an initial hospital episode are frequent, costly, and often preventable occurrences. Approximately 20 percent of Medicare beneficiaries are readmitted within 30 days of an initial hospitalization (*Jencks, 2009, NEJM*). These unplanned rehospitalizations were estimated to cost Medicare \$17.4 billion dollars in 2004. Due to their cost and implications regarding quality of care, readmissions have become a key focus for payers and policymakers striving to control expenditures, improve clinical outcomes, and enhance care coordination.

In 2010, Maryland had the highest readmission rates in the United States among Medicare eligible patients (21.6 percent versus 18.2 percent nationally) (*Health Services Cost Review Commission, 2012*). To incentivize hospitals to more effectively coordinate care and reduce unnecessary readmissions to their facilities, the HSCRC launched the Admission-Readmission Revenue Constraint program (ARR) in 2011 (*Health Services Cost Review Commission, 2011*).

### HSCRC Admission-Readmission Reduction (ARR) Program

The ARR program developed by the HSCRC provides financial incentives for Maryland hospitals to reduce unnecessary readmissions by establishing an Admission-Readmission Revenue constraint. This structure builds upon each hospital's HSCRC approved inpatient unit rates by imposing a case mix adjusted standard bundled Admission-Readmission Charge Per Episode (ARR-CPE) target for each ARR hospital. The target applies to inpatient admissions and subsequent readmissions within 30 days of the initial discharge.

HSCRC's bundled ARR-CPE targets motivate efficient use of services by transferring financial risk from the case level (single admission) to the bundled episode. ARR is designed to provide a single CPE target that includes combined revenue for the initial admission (all DRGs) and all subsequent readmissions (all cause) within 30-days of the initial admission's discharge. The ARR program provides hospitals with a strong incentive to coordinate the provision of services during the hospitalization, discharge, and the post-discharge care continuum.

HSCRC's readmissions bundling approach is consistent with national efforts to link payments to episodes of care rather than providing separate payments for multiple services (*Center for Medicare and Medicaid Services, 2013*). In addition, a recent analysis of Medicare claims data found that quality improvement initiatives focused on care transitions led to reductions in both all-cause 30-day readmissions and all-cause admissions; however, no declines were observed for all-cause readmissions as a percentage of discharges (*Brock, JAMA, 2013*). These data suggest that a bundled payment incorporating both admissions and readmissions may be an appropriate policy to incentivize reductions in rehospitalizations.

At a national level, the Center for Medicare and Medicaid Services (CMS) developed Medicare's Hospital Readmissions Reduction Program as authorized under Section 3025 of the Affordable Care Act (ACA). The program does not approach readmissions reduction efforts through a bundling approach, and instead, imposes a scaled penalty for hospitals with 30-day excess readmissions in the Medicare population associated with three diagnostic-related groups (DRGs): acute myocardial infarction, heart failure, and pneumonia (see Appendix I) (*Centers for Medicare and Medicaid Services. August 2012*). Beginning in October 2012, CMS implemented the scaled penalty with a maximum of 1 percent reductions across all DRG payments in hospitals with high readmission rates. CMS exempted Maryland hospitals from the Medicare scaled penalties for federal fiscal year 2013.

## Results

### Overview of Intervention Plans

To participate in ARR, the HSCRC required hospitals to develop and implement intervention plans to reduce readmissions at their facilities. The HSCRC required hospitals to submit documentation of the interventions with a rationale for their strategies and develop at least two metrics for measuring the effectiveness of the interventions. Figure 1 below provides an overview of stages in the care delivery process where hospitals may intervene to prevent rehospitalizations, as defined in a report published by the Health Research & Educational Trust (*Jencks et al, Health Research & Educational Trust, 2010*). It also lists the types of interventions and metrics used by participating Maryland hospitals to lower readmissions along the care continuum. While the table below helps to identify specific time points when hospitals might intervene to improve care transitions, many of the strategies employed by Maryland hospitals and many of the metrics for assessment of these strategies span multiple stages of care.

**Figure 1. Overview of Interventions and Metrics Used by Hospitals in ARR Year 1**

	<b>Categories of Intervention Strategies*</b>	<b>Examples of Metrics Developed by Maryland Hospitals to Evaluate Interventions</b>	<b>Hospitals Implementing Initiatives</b>
<b>Hospitalization Phase</b>	Risk screen patients and tailor care	<ul style="list-style-type: none"> <li>• Number of risk assessments performed on COPD and HF patients</li> <li>• Number of adult medical/surgical patients screened</li> <li>• % early risk screens performed</li> <li>• % positive early risk screens</li> </ul>	<ul style="list-style-type: none"> <li>• Anne Arundel Medical Center</li> <li>• Baltimore/Washington Medical Center</li> <li>• Frederick Memorial</li> <li>• Hopkinsx</li> <li>• Life Bridge</li> <li>• Peninsula</li> <li>• Saint Joseph's</li> <li>• Shady Grove Adventist</li> <li>• Washington Adventist</li> </ul>
	Establish communication with PCP and home care	<ul style="list-style-type: none"> <li>• % patients with a discharge summary faxed to PCP</li> <li>• # of discharge summaries/problem list sent to PCP's office within 48 hours of discharge</li> </ul>	<ul style="list-style-type: none"> <li>• Anne Arundel Medical Center</li> <li>• Maryland General Hospital</li> <li>• Mercy</li> <li>• Upper Chesapeake Health</li> </ul>
	Use "teach back" or other methods to educate patient, family, and/or caregivers	<ul style="list-style-type: none"> <li>• % completion of staff education</li> <li>• % educational sessions using the teach back methodology provided to HF and COPD population</li> <li>• Readmission rate for patients receiving education</li> <li>• % of patients completing HCAHPS survey</li> <li>• Number of educational packets given to high-risk patients</li> <li>• % patients receiving education at discharge</li> <li>• Patient satisfactions with "teach back" method using HCAHPS survey</li> </ul>	<ul style="list-style-type: none"> <li>• Baltimore/Washington Medical Center</li> <li>• Bon Secours</li> <li>• Doctors Community Hospital</li> <li>• Greater Baltimore Medical Center</li> <li>• Maryland General Hospital</li> <li>• Mercy</li> <li>• Saint Joseph's</li> <li>• Upper Chesapeake Health</li> </ul>
	Use multidisciplinary clinical teams to coordinate patient care	<ul style="list-style-type: none"> <li>• % multiple readmissions among high-risk patients (sickle cell anemia, end stage renal disease, and malignancy) within 30 days after initial discharge</li> <li>• Readmission rates (overall and by specific conditions)</li> <li>• % of patients receiving case management services</li> </ul>	<ul style="list-style-type: none"> <li>• Anne Arundel Medical Center</li> <li>• Holy Cross</li> <li>• Hopkinsx</li> <li>• James Kernan</li> <li>• Life Bridge</li> <li>• Shady Grove Adventist</li> <li>• Upper Chesapeake Health</li> </ul>

			<ul style="list-style-type: none"> <li>Washington Adventist</li> </ul>
	Discuss end-of-life treatment wishes	<ul style="list-style-type: none"> <li># of patients evaluated by palliative care medical director</li> </ul>	<ul style="list-style-type: none"> <li>Upper Chesapeake Health</li> </ul>
<b>At Discharge</b>	Comprehensive discharge planning	<ul style="list-style-type: none"> <li>% patients receiving SMART discharge protocol</li> <li>Number readmitted patients discharged without follow-up resources arranged</li> <li>% of readmitted patients who kept PCP follow up appointment</li> <li>Readmission rates (overall and by target population [HF, COPD, sickle cell anemia]).</li> <li>% of patients slated for moderate or intense interventions upon discharge</li> <li>% of discharged patients with referrals to other facilities</li> <li>% of patients presenting to the emergency department who receive a Care Manager Assessment</li> <li>Number of referrals to support/community services</li> <li>% patients provided comprehensive discharge planning</li> <li>% of patients discharged with subsidized resources other than medications, such as durable medical equipment and doctor's appointments</li> </ul>	<ul style="list-style-type: none"> <li>Anne Arundel Medical Center</li> <li>Civista</li> <li>Doctors Community Hospital</li> <li>Franklin square</li> <li>Good Samaritan</li> <li>Greater Baltimore Medical Center</li> <li>Harbor</li> <li>Holy Cross</li> <li>Hopkinsx</li> <li>Life Bridge</li> <li>Maryland General Hospital</li> <li>Mercy</li> <li>Montgomery</li> <li>Peninsula Regional Medical Center</li> <li>Saint Agnes</li> <li>Saint Mary's</li> <li>Shady Grove Adventist Hospital</li> <li>University of Maryland Medical Center</li> <li>Union</li> <li>Upper Chesapeake Health</li> <li>Washington Adventist</li> </ul>
	Schedule and prepare follow up appointment(s)	<ul style="list-style-type: none"> <li>% patients with physician appointments scheduled prior to discharge</li> <li>% patients with PCP information captured prior to discharge</li> <li>% medical/surgical patients discharged with a follow up appointment within 7 days of discharge</li> <li>Number of medical/surgical patients who kept the follow up medical appointment scheduled for them after discharge</li> </ul>	<ul style="list-style-type: none"> <li>Anne Arundel Medical Center</li> <li>Baltimore/Washington Medical Center</li> <li>Bon Secours</li> <li>Doctors Community Hospital</li> <li>Franklin square</li> <li>Frederick Memorial</li> <li>Greater Baltimore Medical Center</li> </ul>

	<ul style="list-style-type: none"> <li>• % high-risk patients with a PCP identified at discharge</li> <li>• % of patients with visit their PCP within 2 weeks of discharge</li> <li>• # of follow-up appointments made within 10 days of discharge</li> <li>• # of follow-up appointments attended</li> <li>• # of physician appointments made and attended within 7 days of discharge</li> </ul>	<ul style="list-style-type: none"> <li>• Good Samaritan</li> <li>• Harbor</li> <li>• Holy Cross</li> <li>• Hopkinsx</li> <li>• Life Bridge</li> <li>• Mercy</li> <li>• Montgomery</li> <li>• Saint Joseph's</li> <li>• Saint Mary's</li> <li>• University of Maryland Medical Center</li> <li>• Union</li> </ul>
Help patient manage medications	<ul style="list-style-type: none"> <li>• % high-risk patients who receive a pharmacist completed medication history and/or consultative services</li> <li>• % patients who had their medications reconciled in their home within 72 hours of discharge</li> <li>• Number of high-risk patients consulted by pharmacist</li> <li>• % patients with medication discrepancies and reconciliation errors identified throughout the inpatient, discharge, and 30 day outpatient continuum</li> <li>• % medication errors classified as intermediate or severe</li> <li>• % of patients discharged with subsidized medication</li> <li>• % of patients receiving medications before discharge</li> <li>• Number of documented medication reconciliations by pharmacist</li> </ul>	<ul style="list-style-type: none"> <li>• Anne Arundel Medical Center</li> <li>• Franklin square</li> <li>• Frederick Memorial</li> <li>• Good Samaritan</li> <li>• Greater Baltimore Medical Center</li> <li>• Harbor</li> <li>• Hopkinsx</li> <li>• Montgomery</li> <li>• Peninsula Regional Medical Center</li> <li>• Saint Joseph's</li> <li>• Saint Mary's</li> <li>• Shady Grove Adventist Hospital</li> <li>• Union</li> <li>• University of Maryland Medical Center</li> <li>• Washington Adventist</li> </ul>
Facilitate discharge to nursing homes with detailed instructions and partnerships	<ul style="list-style-type: none"> <li>• % patients transferred to partner SNFs with medication reconciliation documented at time of discharge</li> <li>• Readmission rate for patients discharged to partner SNFs</li> <li>• Development of post-acute transitions protocols with local SNF providers for patients with HF</li> <li>• % patients admitted to nursing facilities with</li> </ul>	<ul style="list-style-type: none"> <li>• Bon Secours</li> <li>• Frederick Memorial</li> <li>• Holy Cross</li> <li>• Life Bridge</li> <li>• Montgomery</li> <li>• Saint Agnes</li> <li>• Saint Joseph's</li> </ul>

		documented collaboration between the “Nurse Navigator”/social work team and the nursing facility staff to provide a completed patient discharge record	
<b>Post-discharge</b>	Conduct patient home visit	<ul style="list-style-type: none"> <li>• % of discharged patients receiving home care referrals</li> <li>• % patients who have a home/SNF visit 48-72 hours post discharge</li> <li>• 30-day readmissions rates for patients with a primary diagnosis of HF, COPD, or Type II Diabetes both with a Home/SNF Visit and those who do not have a post discharge visit</li> </ul>	<ul style="list-style-type: none"> <li>• Franklin Square</li> <li>• Good Samaritan</li> <li>• Harbor</li> <li>• Hopkinsx</li> <li>• Life Bridge</li> <li>• Montgomery</li> <li>• Shady Grove Adventist</li> <li>• Saint Joseph’s</li> <li>• Saint Mary’s</li> <li>• Union</li> <li>• Washington Adventist</li> </ul>
	Telephone follow up	<ul style="list-style-type: none"> <li>• Number of targeted patients receiving phone call within 24 - 48 hours after discharge</li> <li>• % of insured medical/surgical patients discharged to home with complete follow-up phone calls</li> <li>• % of uninsured medical/surgical patients discharged to home with complete follow-up phone calls</li> <li>• Readmission rates among those with telephone follow up vs. those without telephone follow up</li> <li>• % of patients receiving follow up phone calls</li> <li>• % of patients receiving follow up phone calls from the pharmacy</li> <li>• % of HF patients enrolled in Heartline, a remote Tel-Assurance program to track changes in clinical status</li> <li>• # of telephone calls made within 72 hrs of discharge</li> <li>• # of successful (reached patient/family member) phone calls</li> </ul>	<ul style="list-style-type: none"> <li>• Anne Arundel Medical Center</li> <li>• Baltimore/Washington Medical Center</li> <li>• Franklin Square</li> <li>• Good Samaritan</li> <li>• Harbor</li> <li>• Holy Cross</li> <li>• Hopkinsx</li> <li>• Life Bridge</li> <li>• Mercy</li> <li>• Montgomery</li> <li>• Peninsula Regional Medical Center</li> <li>• Shady Grove Adventist</li> <li>• Saint Mary’s</li> <li>• University of Maryland Medical Center</li> <li>• Union</li> <li>• Upper Chesapeake Health</li> <li>• Washington Adventist</li> </ul>

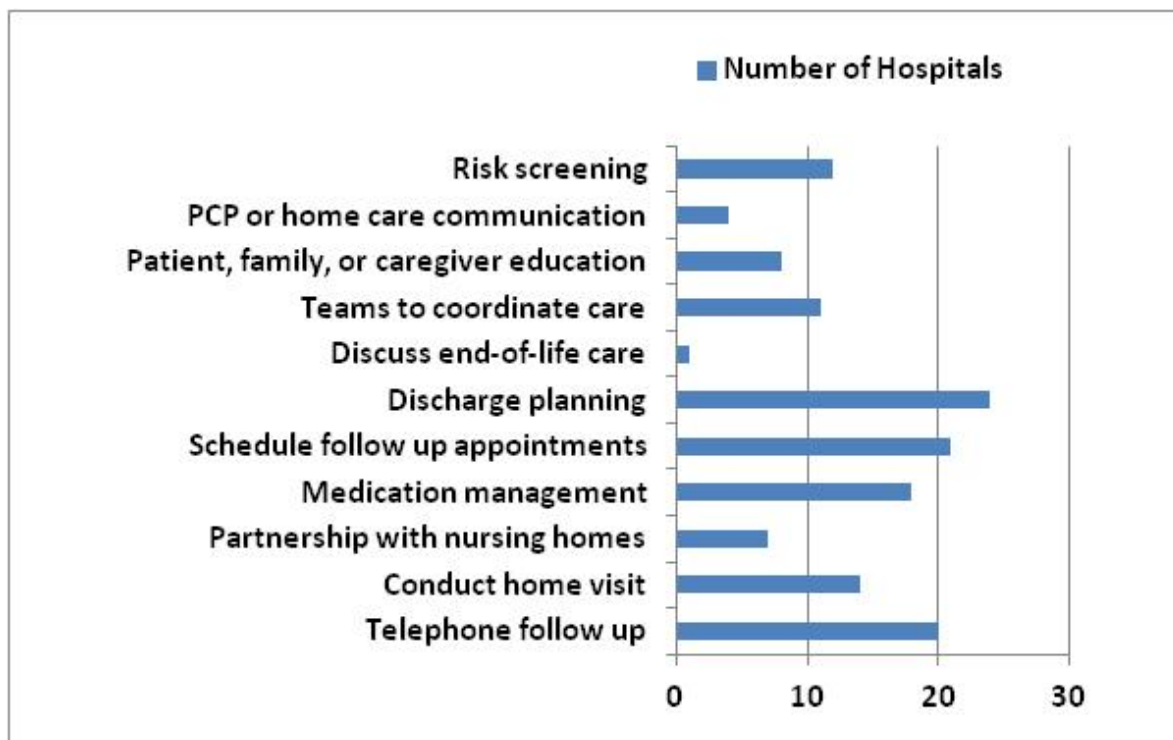
Abbreviations: COPD=chronic obstructive pulmonary disease; HCAHPS = Hospital Consumer Assessment of Healthcare Providers and Systems; HF=Heart Failure; PCP=Primary Care Physician; SMART = Signs, Medications, Appointments, Results, Talk; SNF=Skilled-nursing Facility

\*Intervention strategies as described in Osei-Anto A, Joshi M, Audet AM, Berman A, Jencks A. *Health Care Leader Action Guide to Reduce Avoidable Readmissions*. Health Research & Educational Trust. Chicago, IL. January, 2010.

xIncludes the Hopkins Downtown Hospital, Hopkins Bayview, Howard County General Hospital, and Suburban Hospital

Most hospitals focused on similar types of interventions to reduce readmissions such as programs to improve discharge planning, facilitate follow-up appointments after discharge, assist patients with medication management, and monitor patient status through telephone follow up (Figure 2). The most common target populations for interventions were patients admitted with heart failure or COPD.

**Figure 2. Frequency of Types of Interventions Instituted by ARR Hospitals**



Note: Facilities within a hospital system were counted as individual entities. Hospitals may have multiple interventions within a category.

While there were similarities across intervention strategies, the metrics used to monitor program effectiveness were diverse. For example, 18 hospitals stated that they developed interventions to improve medication management, but hospitals used a range of metrics to monitor this intervention, for example:

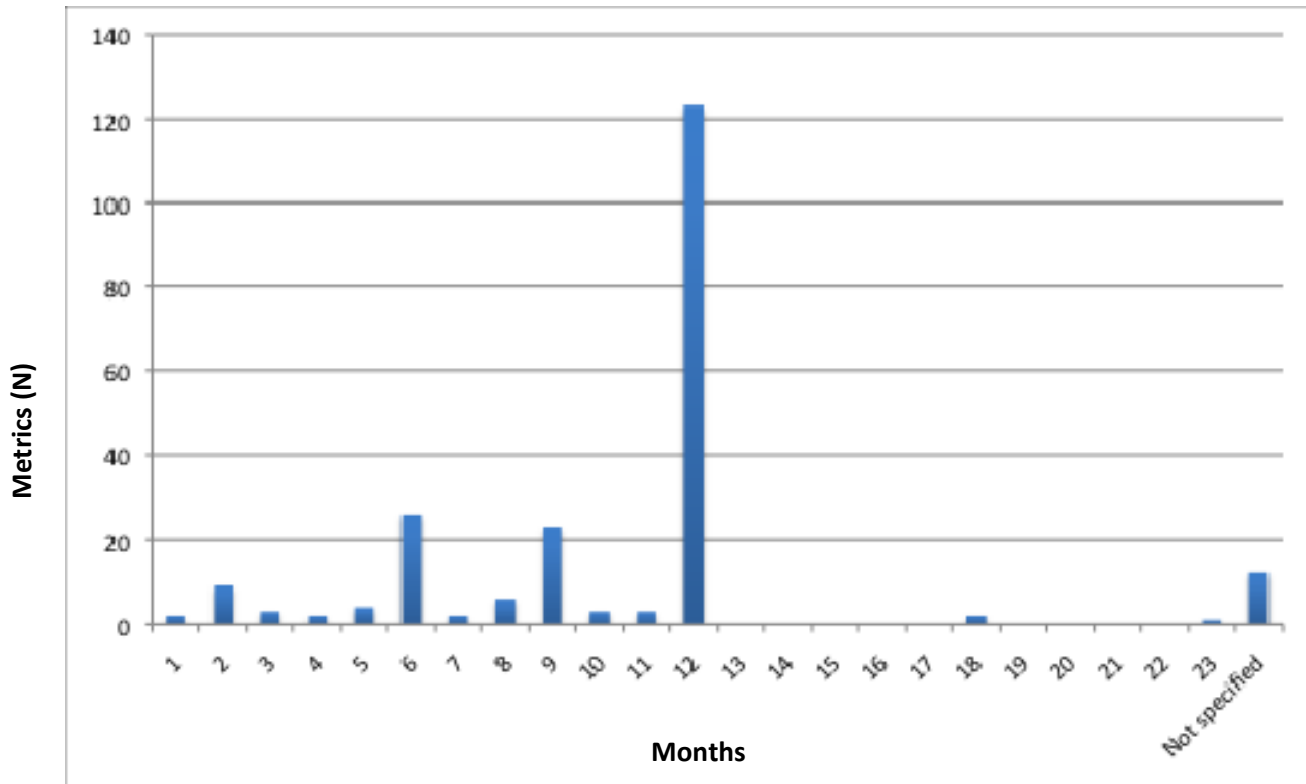
- the percent of high-risk patients who received a pharmacist completed medication history and/or consultative services,
- the number of documented medication reconciliations by pharmacist, and
- the percent of medication errors classified as intermediate or severe.

Variation in both the interventions and metrics used by different hospitals are contingent upon the hospitals' patient populations, internal systems, and staffing resources, among other factors.



Most hospitals provided data for metrics that had been monitored over a 12-month period (Figure 3). The mean length of data collection for all metrics was 9.83 months. The time period for data collection was not provided for twelve metrics, which may indicate that they are newly in development.

**Figure 3. Metrics’ Data Collection Length of Time**



## Quantitative Metrics Results

Per request of the HSCRC, hospitals provided descriptive information about their ARR intervention plans and quantitative results (numerator and denominator) for the metrics hospitals monitored in Year 1. The HSCRC required hospitals to list their metrics, the corresponding intervention(s) for that metric, the result, and the timeframe for data collection of the metric. While some metrics used by hospitals were similar (e.g., readmission rate), the specific numerator and denominator definitions were not comparable across facilities. Below we provide the findings of this analysis organized according to the type of interventions.

### Risk Screening

Figure 4 displays the process and outcome metrics used to evaluate risk screening interventions. The sole process metric used to track and monitor risk assessment interventions was the proportion of risk assessments performed on the target population. While most hospitals performed screening

assessments in the overall population, several hospitals focused screening efforts on high-risk populations, such as those with a prior readmission or individuals with health failure, COPD, or diabetes with complications.

Outcome metrics for risk screening interventions included readmission rates and the percentage of patients who screened positive during the assessment. One hospital used readmission rates to assess the effectiveness of the Tool for Addressing Risk: A Geriatric Evaluation for Transitions (TARGET) tool in preventing readmissions among patients with COPD, health failure, or type II diabetes. Readmissions were 11.67 percent higher in patients who were identified as “high risk” with the TARGET tool relative to those patients that were not categorized as “high risk” with the assessment.

**Figure 4. Risk Assessment Intervention Metrics**

<b>Types of Metrics</b>	<b>Number of hospitals reporting results/Number of hospitals using the metric</b>	<b>Mean length of implementation, months (range)</b>	<b>Process or outcome measure</b>
Risk assessment rate	11/12	8.95 (0.5-12)	Process
% positive screens	5/5	12 (12-12)	Outcome
Readmission rate	1/1	9 (N/A)	Outcome
Readmission rate HF	1/1	10 (N/A)	Outcome
Readmission rate COPD	1/1	10 (N/A)	Outcome

### PCP or Home Care Communication

Figure 5 displays the process and outcome metrics used to evaluate PCP or home care communication interventions. Four hospitals developed process metrics to track their progress implementing interventions to improve communication with PCPs. Most metrics focused on the hospital’s ability to fax discharge summaries to PCPs, but only one hospital included a time frame for sharing the summary (i.e., fax patient summary within 48 hour of discharge). More common interventions and metrics for tracking coordination with PCPs following discharge included follow up appointment scheduling and PCP appointment attendance rates (see Figure 10).

There is substantial overlap between the metrics used to evaluate the success of PCP or home care communication interventions and the success of discharge planning interventions (see Figure 9), as PCP contact is an important component of transitioning care to the outpatient setting after discharge.

Only one hospital used an outcome metric (readmission rates) to evaluate improvements in PCP communication.

**Figure 5. PCP or Home Care Communication Intervention Metrics**

<b>Types of Metrics</b>	<b>Number of hospitals reporting results/Number of hospitals using the metric</b>	<b>Mean length of implementation, months (range)</b>	<b>Process or outcome measure</b>
Discharge summary to PCP rate	3/3	12 (N/A)	Process
PCP identification rate	1/1	Not specified	Process
Readmission rate	1/1	12 (N/A)	Outcome

## Patient, Family, or Caregiver Education

Figure 6 displays the process and outcome metrics used to evaluate patient, family, or caregiver education interventions. Seven hospitals created process metrics to evaluate the role of patient, caregiver, or health care professional education in lowering readmissions. One hospital monitored both patient and staff education rates.

Four hospitals used readmission rates to evaluate the impact of educational interventions. These rates were captured for several different populations (Figure 6). In addition, one hospital used a patient-satisfaction measure (i.e., the number of patients reporting that nurses "always" explained things in a way that they could understand) to assess the effectiveness of a staff Teachback program.

**Figure 6. Patient, Family, or Caregiver Education Intervention Metrics**

Types of Metrics	Number of hospitals reporting results/Number of hospitals using the metric	Mean length of implementation, months (range)	Process or outcome measure
Patient education rate	7/7	9.75 (5-12)	Process
Staff education rate	1/1	12 (N/A)	Process
Readmission rate	2/2	10.5 (9-12)	Outcome
Readmission rate HF	1/1	12 (N/A)	Outcome
Readmission rate COPD	2/2	11 (10-12)	Outcome
Readmission rate sickle cell anemia	1/1	12 (N/A)	Outcome
High patient satisfaction	1/1	12 (N/A)	Outcome

## Using Multidisciplinary Clinical Teams to Coordinate Patient Care

Figure 7 displays the process and outcome metrics used to evaluate multidisciplinary team coordination interventions. Metrics used to evaluate the use of interdisciplinary management teams included referral rates to other health system facilities, enrollment in a Healthy Heart program, and the frequency at which patients were linked to a case manager. In addition, one hospital reported the proportion of patients included in multidisciplinary team rounds as a process metric.

The most common outcome metric for assessing the effectiveness of interdisciplinary teams was readmission rates, which varied widely across facilities and patient populations. In addition, one health system used a patient satisfaction metric to determine the success of interdisciplinary teams. The hospital measured satisfaction according to patient responses to questions about the clinical team's communication regarding discharge procedures and medications.

**Figure 7. Multidisciplinary Teams to Coordinate Care Intervention Metrics**

<b>Types of Metrics</b>	<b>Number of hospitals reporting results/Number of hospitals using the metric</b>	<b>Mean length of implementation, months (range)</b>	<b>Process or outcome measure</b>
Referral rates	5/5	10.2 (3-12)	Process
Proportion of patients in rounds	1/1	6 (N/A)	Process
Healthy Heart enrollment rate	2/2	1 (N/A)	Process
Case management provision rate	2/2	5 (4-6)	Process
Readmission rate	5/5	12.47 (7-18)	Outcome
Psychiatry readmission rate	1/1	12 (N/A)	Outcome
Mean length of stay (days)	4/4	12 (N/A)	Outcome
Patient satisfaction	4/4	12 (N/A)	Outcome

### Discuss End-of-life Treatment Wishes

Only one hospital developed interventions to address planning for terminal illness and palliative care (Figure 8). This medical center tracked the number of patients evaluated by a palliative care medical director in order to improve end-of-life care preparedness and care delivery. The hospital did not develop associated outcome metrics to assess the success of end-of-life care interventions.

**Figure 8. Discuss End-of-life Care Intervention Metrics**

<b>Types of Metrics</b>	<b>Number of hospitals reporting results/Number of hospitals using the metric</b>	<b>Mean length of implementation, months (range)</b>	<b>Process or outcome measure</b>
Palliative care consult rate	1/1	11 (N/A)	Process

### Comprehensive Discharge Planning

Figure 9 displays the process and outcome metrics used to evaluate discharge planning interventions. Process metrics used to assess the effectiveness of discharge planning interventions were diverse, which may relate to the variety of strategies that can be employed in the hospital or immediately after discharge to manage patient care.

There is substantial overlap between the metrics used to evaluate the success of discharge planning intervention and the metrics used to evaluate the success of PCP communication (see Figure 5), as PCP contact is an important component of transitioning care to the outpatient setting after discharge. However, the metrics listed below were specifically linked to interventions focused on transitions after discharge.

The most common metric used to evaluate the success of discharge planning interventions was readmission rate. Fourteen hospitals captured readmissions rates for patients admitted to their facilities. Other outcome metrics included mean length of stay, PCP visit attendance rate, patient satisfaction, and readmission rates in specific populations.

**Figure 9. Discharge Planning Intervention Metrics**

<b>Types of Metrics</b>	<b>Number of hospitals reporting results/Number of hospitals using the metric</b>	<b>Mean length of implementation, months (range)</b>	<b>Process or outcome measure</b>
Charity care provision rate	3/3	9 (6-12)	Process
Discharge summary to PCP rate	3/8	6.5 (2-12)	Process
Electronic discharge summary generation rate	1/1	4 (N/A)	Process
Patient management program referral rates	5/5	10.8 (6-12)	Process
Receipt of discharge protocol	2/3	11.5 (11-12)	Process
Risk assessment rate	1/1	Not specified	Process
Personal health record utilization rate	1/1	9 (N/A)	Process
Readmission rate	14/14	10.9 (3.5-12)	Outcome
Readmission rate HF	3/3	9 (6-12)	Outcome
Readmission rate COPD	2/2	12 (N/A)	Outcome
Readmission rate psychiatric	1/1	12 (N/A)	Outcome
Readmission rate high-risk patients	1/1	5 (N/A)	Outcome
Readmission rate sickle cell anemia	1/1	12 (N/A)	Outcome
Mean length of stay (days)	4/4	12 (N/A)	Outcome
PCP visit attendance rate	2/2	12 (N/A)	Outcome
Patient satisfaction	4/4	12 (N/A)	Outcome

### **Schedule Follow up Appointments**

Figure 10 displays the process and outcome metrics used to evaluate schedule follow up appointment interventions. Numerous hospitals included PCP appointment scheduling rate as a metric for their intervention program. Rates of success varied widely across hospitals. Several hospitals evaluated the success of PCP scheduling with outcome metrics, including readmission rates and the frequency at which patients attended their scheduled primary care visits.

**Figure 10. Schedule Follow up Appointment Intervention Metrics**

<b>Types of Metrics</b>	<b>Number of hospitals reporting results/Number of hospitals using the metric</b>	<b>Mean length of implementation, months (range)</b>	<b>Process or outcome measure</b>
PCP appointment scheduling rate	10/16	7.6 (4.5-12)	Process
PCP visit attendance rate	3/4	11 (9-12)	Outcome
Readmission rate	4/6	11.25 (9-12)	Outcome
Readmission rate HF	2/2	10-12	Outcome
Readmission rate COPD	1/1	10-12	Outcome
Readmission rate sickle cell anemia	1/1	12 (N/A)	Outcome

### Medication Management

Figure 11 displays the process and outcome metrics used to evaluate medication management interventions. The primary process metric chosen by hospitals to evaluate the success of medication management interventions was medication reconciliation. However, only four of the ten hospitals had collected results for this metric by the end of ARR Year 1. The mean length of implementation time was just 6 months, suggesting that it either took longer for hospitals to develop metrics for medication management or it took hospitals longer to implement interventions associated with medication management activities.

The two outcome metrics collected to evaluate medication management interventions were readmission rate and medication error rate.

**Figure 11. Medication Management Intervention Metrics**

<b>Types of Metrics</b>	<b>Number of hospitals reporting results/Number of hospitals using the metric</b>	<b>Mean length of implementation, months (range)</b>	<b>Process or outcome measure</b>
Medication reconciliation rate	4/10	6.11 (2-12)	Process
Medication received prior to discharge	1/1	12 (N/A)	Process
Charity care provision rate	2/2	9 (12-6)	Process
Readmission rate	2/2	12 (N/A)	Outcome
Medication error rate	3/3	9 (N/A)	Outcome

### Partnerships with Nursing Homes

Figure 12 displays the process and outcome metrics used to evaluate partnership with SNFs interventions. Several hospitals are developing process metrics to determine the success of procedures to improve coordination between inpatient care and SNFs. Only two hospitals reported results for ARR Year 1. ARR Year 2 should provide additional information regarding the impact of interventions aimed at improving care transitions between the hospital and SNFs.

Four hospitals used overall readmissions rates as a metric for evaluating programs to improve partnerships with SNFs. The mean length of data collection for these metrics was 14 months.

**Figure 12. Partnership with Nursing Homes Intervention Metrics**

<b>Types of Metrics</b>	<b>Number of hospitals reporting results/Number of hospitals using the metric</b>	<b>Mean length of implementation, months (range)</b>	<b>Process or outcome measure</b>
Medication reconciliation rate at time of transfer to SNF	0/1	N/A	Process
Number of protocols developed with SNF for managing HF patients	0/1	N/A	Process
Percentage of patients in the program who utilize partner SNF	1/1	9 (N/A)	Process
Discharge summary to SNF rate	1/1	11 (N/A)	Process
Readmission rate	4/4	14 (9-23)	Outcome

### Conduct Patient Home Visit

Figure 13 displays the process and outcome metrics used to evaluate home visit interventions. Ten hospitals collected data on home care assessments or home care referrals over 12 months to evaluate the success of home visit interventions. Outcome metrics for the effectiveness of interventions designed to improve home care included rates of home visits and readmission rates.

**Figure 13. Conduct Patient Home Visit Intervention Metrics**

<b>Types of Metrics</b>	<b>Number of hospitals reporting results/Number of hospitals using the metric</b>	<b>Mean length of implementation, months (range)</b>	<b>Process or outcome measure</b>
Home visit assessment rate	6/6	12 (N/A)	Process
Home visit referral rate	4/4	12 (N/A)	Process
Home visit rate	3/3	9 (6-12)	Outcome
Home visit or telephone follow up rate	4/4	12 (N/A)	Outcome
Readmission rate	2/2	6.75 (4.5-9)	Outcome

### Telephone Follow up

Figure 14 displays the process and outcome metrics used to evaluate telephone follow up interventions. The rate of telephone follow up was a common metric used by hospitals in the ARR program. In addition, three hospitals captured the rate of complete telephone follow up (i.e., phone calls in which the health care professional connected with the patient or caregiver).

Several hospitals used readmission rates as a metric to evaluate the success of telephone follow up programs. Two hospitals specifically captured readmission rates in patients who were reached by the health care professional during telephone follow up. Four facilities monitored readmission rates among specific populations.

**Figure 14. Telephone Follow up Intervention Metrics**

<b>Types of Metrics</b>	<b>Number of hospitals reporting results/Number of hospitals using the metric</b>	<b>Mean length of implementation, months (range)</b>	<b>Process or outcome measure</b>
Heartline program enrollment rate	1/1	6 (N/A)	Process
Telephone follow up rate	14/16	7.13 (2-12)	Process
Home visit or telephone follow up rate	4/4	12 (N/A)	Process
Telephone follow up completion rate	3/3	11 (9-12)	Process
Readmission rate	5/5	11.2 (8-12)	Outcome
Readmission rate HF	2/2	8 (6-10)	Outcome
Readmission rate COPD	1/1	10 (N/A)	Outcome
Readmission rate in contacted patients	2/2	9.5 (7-12)	Outcome
Readmission rate in high-risk patients	1/1	9 (N/A)	Outcome

## Qualitative Metrics Results

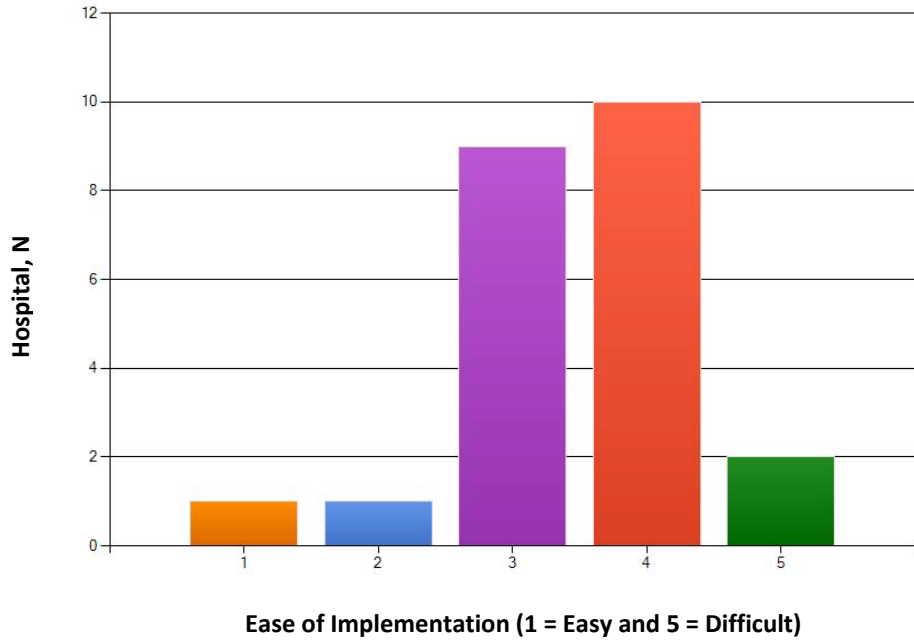
HSCRC staff developed a qualitative survey to ascertain the hospitals’ experiences implementing and measuring interventions to reduce readmissions during Year 1 of the ARR program. The goal of the questionnaire was to understand the challenges and successes of the intervention strategies and potential changes to programs for ARR Year 2. All 31 ARR hospitals responded to the survey. In the section that follows, we describe the reported challenges and successes associated with the each type of intervention and its associated metrics, proposed changes for Year 2, and overall trends and patterns for monitoring interventions for reducing admissions and readmissions.

### General Findings

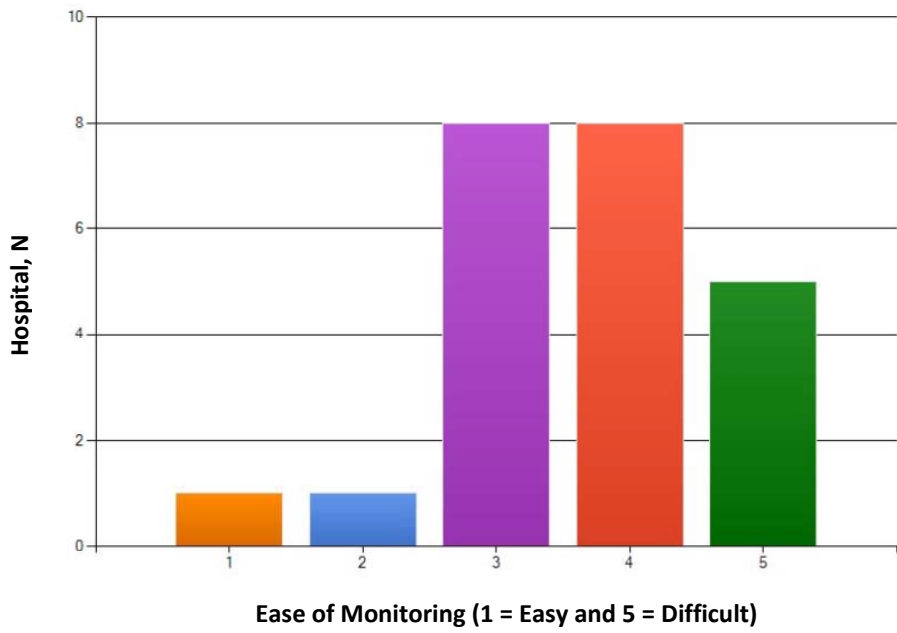
Overall, 52.2 percent of hospitals reported that it was either difficult or very difficult to implement their interventions (Figure 15). Only 4.3 percent of sampled hospitals responded that it was easy to implement their interventions. Similarly, 56.5 percent of hospitals reported that it was either difficult or very difficult to monitor their metrics (Figure 16).



**Figure 15. Hospital Rating of Intervention Implementation Ease**

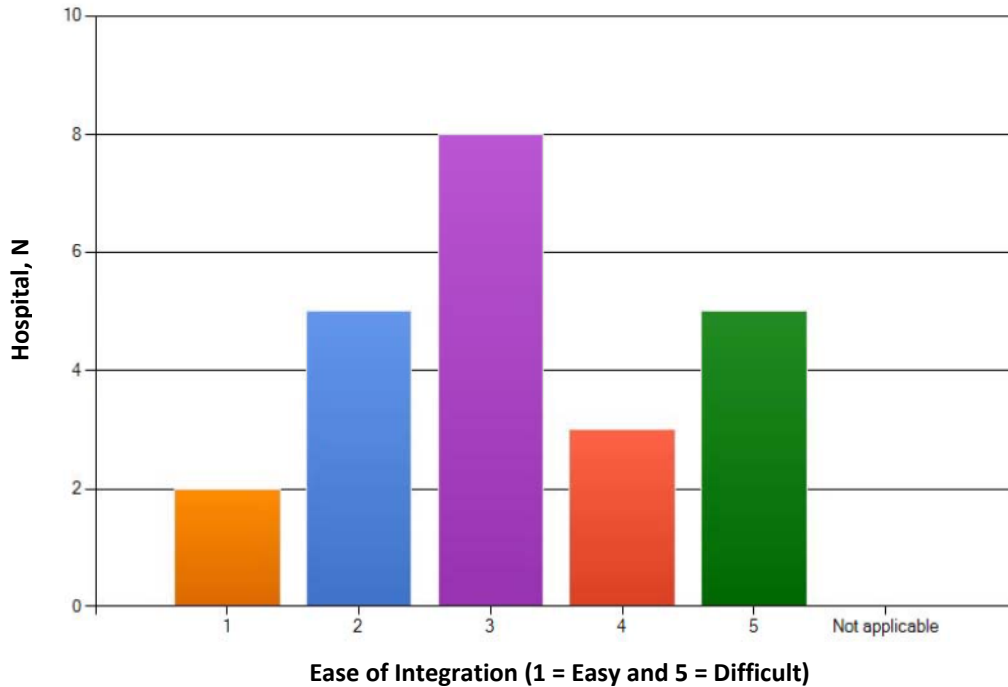


**Figure 16. Hospital Rating of Metric Monitoring Ease**



Hospitals reported variability in the ease of integrating interventions into other quality improvement or cost containment initiatives. Overall, about one third of hospitals believed that it was neither easy nor difficult to integrate ARR interventions into other quality improvement initiatives, while one third indicated relative ease and one third relative difficulty with integration (Figure 17).. No hospitals reported that this question was “not applicable,” indicating that all health systems had ongoing quality improvement programs in place in their facilities.

**Figure 17. Hospital Rating of Ease of Integration of Interventions into Quality Improvement or Cost Containment Initiatives**



In general, the hospitals reported that readmissions metrics helped them to understand the specific diagnostic categories of patients who were readmitted to their facilities, develop more thoughtful discharge planning and care coordination programs, and guide quality improvement efforts.

Hospitals cited managing new staff, technical difficulty measuring metrics, and patient beliefs and behaviors as the primary challenges to successful intervention implementation. Many interventions necessitated new staff, and several hospitals found it challenging to hire, train, and retain new employees. Other hospitals reported difficulty with resource allocation among existing staff early in the program. Two hospitals did not have personnel dedicated for data entry, and thus, they found it difficult to obtain resources to support data analysis in a timely and routine manner.

Hospitals found that it took time to get electronic systems in place to appropriately capture the metrics. Many hospitals did not have electronic systems to collect metric data, and thus, monitoring the metrics was slow and cumbersome for staff. Even once data was collected, several hospitals encountered problems standardizing the data and validating the data for internal external reporting.

Lastly, hospitals reported that an important component impacting project success was patients' and families' values, beliefs and preferences about the role of care coordination/management programs. For example, one hospital reported "while we have identified patients who would benefit by a Transitions Guide or even Skilled Home Care, many patients refuse the intervention." Patient attitudes and compliance to interventions will remain a challenge for hospitals. Training staff in cultural competency and tailoring programs to different population segments will be critical in overcoming these barriers.

### **Risk Screening**

Most hospitals reported success in using risk assessment tools to identify patients with a high probability for readmissions. Several hospitals reported that risk assessment programs helped staff understand the risks for rehospitalizations in patient populations that were not originally targeted in Year 1 programs. In addition, hospitals found that sound risk screening programs were important for the success of subsequent interventions because they helped staff respond early to patient needs for physical therapy, nutritional interventions, social work, etc., and appropriately tailor care.

Hospitals found it challenging to appropriately define high-risk patient populations. One facility focused on patients with more severe DRGs; other hospitals chose to focus on individuals with known high-risk conditions, such as heart failure, COPD, or diabetes with complications. Hospitals also noted that it was unclear whether success in identifying high-risk patients using screening tools translated to lower admissions and readmission rates. For example, one hospital found that patients with a positive risk screen were more likely to be readmitted than those without a positive risk screen. However, readmission rates were 3 percent lower in high-risk patients who were subsequently linked to a "care transitions guide" relative to high-risk patients who did not receive these services. This finding suggests that risk assessments paired with subsequent interventions can improve care along the continuum.

### **Patient, Family, or Caregiver Education**

Several hospitals found that educational interventions enabled patients to better identify signs that their condition is worsening and to become more knowledgeable about when to call their physician or transition coach. Hospitals cited health literacy and patient "limitations" as barriers to educating patients about self management. One hospital emphasized the importance of involving the caregiver because severely-ill patients often could not learn the risks associated with certain symptoms. Another hospital system described piloting new technology for patient/caregiver education that uses interactive computer tablets that account for healthcare literacy and language differences.

### **Using Multidisciplinary Clinical Teams to Coordinate Patient Care**

Hospitals cited high patient and provider satisfaction as a benefit to instituting multidisciplinary teams to help coordinate patient care. The patient feedback associated with coordinated teams was consistently positive. In addition, hospitals remarked on the genuine desire among staff to create change through use of interdisciplinary teams and believed that team coordination maximized workforce synergies and increased accountability for outcomes. Physicians were enthusiastic about having additional resources to help coordinate care across both inpatient and outpatient settings.

Hospitals found that including care management in rounding allowed for earlier identification of barriers to treatment and patient needs.

Multiple hospitals cited success with ED case management programs. They found that these programs helped to identify individuals returning to the ED with a previous visit or previous hospitalization within 30 days (i.e., “high utilizers”), to improve access to community resources for ED patients, and to proactively provide appropriate medical follow-up for frequent ED users.

While the general response to use of multidisciplinary teams was positive, one hospital reported difficulty in attaining consistent interdisciplinary participation and preparation for rounding. Two hospitals had difficulty designing rounding forms supportive of data extraction needs for a broader team and reported concerns with the quality of documentation during rounds. Finally, several hospitals experienced difficulties getting patients to accept outpatient case management because the patients believed it was an intrusion into their lives.

### **Discuss End-of-life Treatment Wishes**

Few hospitals instituted interventions to improve end-of-life care. However, one hospital found that hiring a dedicated palliative care medical director allowed for more informative discussions with patients and families, hospice placements, and positive feedback from the families.

### **Comprehensive Discharge Planning**

Hospitals reported that staff was enthusiastic about improving discharge planning protocols. Hospitals cited the lack of coordinated electronic health records and the inability to share patient information through a single database platform as the key barriers to successful discharge planning interventions.

### **PCP Communication and Schedule Follow up Appointments**

PCP communication and appointment scheduling were common interventions used by hospitals to lower readmissions, but they also were frequently cited as challenging for hospitals to implement. The most widely cited barrier to the success of these interventions was that some patients that did not have a PCP. This problem was particularly challenging for hospitals serving populations with a large proportion of uninsured or underinsured patients. These issues also hindered efforts to improve communication with PCPs, as hospitals were unable to share discharge summaries or medication lists with outpatient providers if the patient did not have an identified PCP or had recently changed practices.

Some hospitals sought to address these problems through the provision of charity care, but cited that those programs were difficult to maintain in the long-term. Several hospitals reported success using “bridge clinics” to see patients without a PCP, but others found that this approach resulted in appointments scheduled several weeks beyond the desired timeframe.

Even among patients with an identified PCP or with insurance, it could be challenging to schedule patient appointments soon after discharge because many PCPs did not have appointment availability

within a short time frame. Hospitals cited linking patients to a PCP as a challenge for patients with Medicare and Medicaid, as some PCPs are not accepting new Medicare or Medicaid patients. Furthermore, certain patients were resistant to appointment scheduling before discharge because they would want to check with their family or caregiver prior to committing to a date and time. One hospital noted that some patients did not know the name of their PCP upon admission, which made it difficult to share records or set up appointments.

Hospitals reported difficulties tracking attendance at PCP visits after discharge because patients did not return phone calls and primary care practices were reluctant to share the information due to HIPAA concerns. One hospital cited a lack of reliable and affordable transportation as a barrier to patients keeping follow-up appointments with post-acute medical providers.

### **Medication Management**

Medication management programs were common strategy used in ARR Year 1 to lower readmissions. Hospitals found that involving pharmacists in medication management helped physicians optimize regimens and reduce medication errors. In one hospital's program, the pharmacist collaborated with the physician to ensure accuracy of the discharge medication list and helped develop a medication regimen that mitigated non-adherence. Another hospital described a pilot project to deploy pharmacists to the home for high-risk patients to help identify barriers to patient compliance with their medications.

Despite these successes, some hospitals reported challenges streamlining communication between the physician and pharmacist and general "workflow issues" as impediments to program success. For example, one hospital developed an intervention to provide patients with their medications before discharge but found it was difficult to finalize the medication list with enough time to fill the scripts prior to discharge. Providers frequently made adjustments to the medication regimen within hours to minutes of discharge, and patients did not want to wait longer in the hospital to receive their medications.

Several hospitals cited patient behaviors as barriers to successful medication management and adherence. One hospital reported that follow up calls for medication reconciliation were unsuccessful when the pharmacist calling was not the pharmacist from whom the patient received their medications. Intervention effectiveness was hindered when patients did not return phone calls inquiring about medication adherence. In addition, some hospitals found that a lack of affordability for medications was a key barrier preventing patient adherence to treatment regimens.

### **Partnerships with Nursing Homes**

Several hospitals cited improved coordination with SNFs as a priority for reducing readmissions to their facilities. However, hospitals consistently cited a lack of dedicated personnel from the SNF to promote handover communication as a barrier in interventions designed to improve care coordination. Two hospitals had begun to establish protocols for SNF care after discharge, including medication management, transportation, and physician follow up. One hospital created a transfer form to use when transitioning a patient from the inpatient setting to post-acute facilities. The form will be tested to

identify opportunities to improve communication and handover after discharge. Establishing a consistent mechanism for data transfer could help hospitals overcome a frequently cited challenge in SNF coordination—the lack of a single database platform through which to share information.

### Conduct Patient Home Visit

Few hospitals qualitatively reported on the successes or challenges of home visits. Two hospitals found that home visiting programs were helpful in identifying both medical (e.g., medication, medical equipment) and non-medical (e.g., social, environmental) factors influencing the patient’s health.

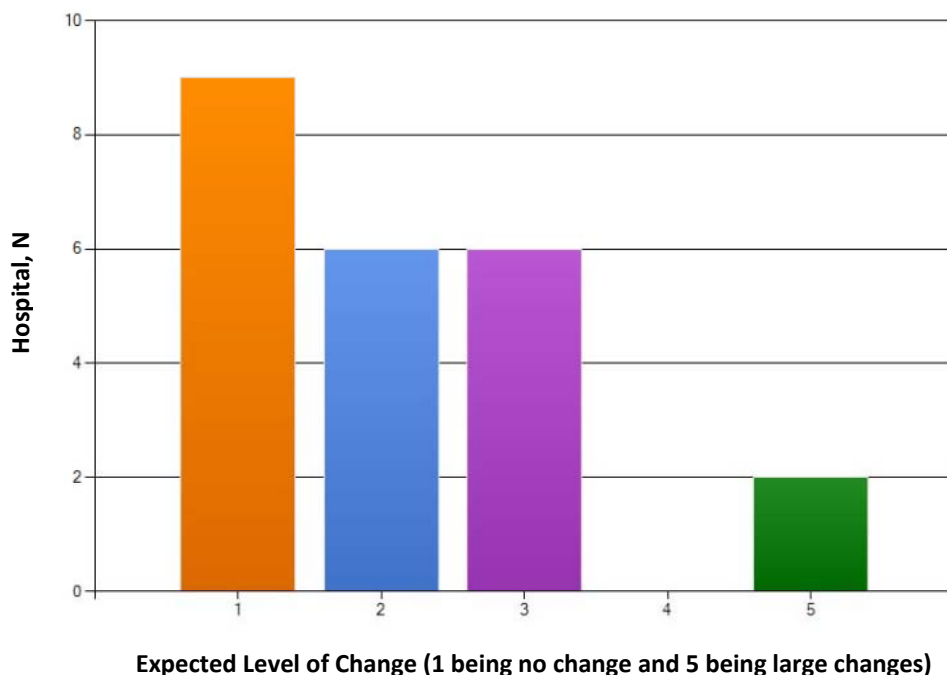
### Telephone Follow up

Several hospitals reported that patients valued telephone follow up and appreciated having a health care professional contact them about their condition. Other hospitals found that reaching patients over the phone proved challenging because many patients rely on cell phones with limited minutes, and thus, these patients do not answer the phone or return phone calls. If the patient was reached, some hospitals questioned the accuracy of the information provided during the follow-up phone call. Even when potential problems were discussed during telephone follow up, some hospitals lacked programs to effectively handle the issues after their identification.

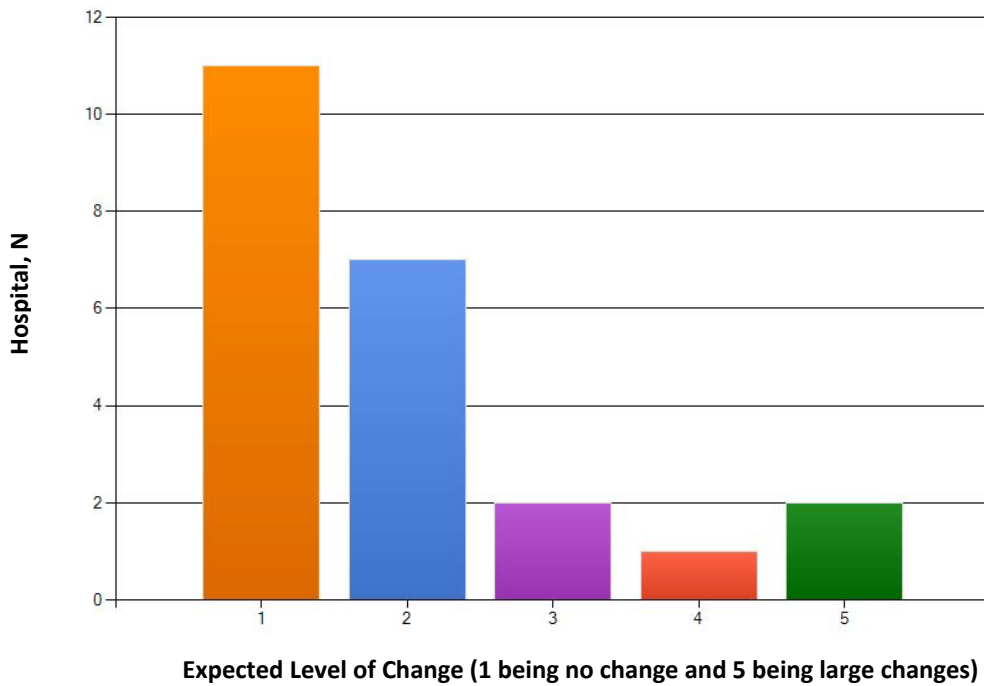
### Proposed Changes or Modifications to Interventions for ARR Year 2

Few hospitals expect to make changes to interventions and metrics currently in place (Figures 18 and 19). However, 39.1 percent of hospitals reported that they plan to develop new interventions or new metrics to further promote readmission reductions in ARR Year 2.

**Figure 18. Hospital Changes to Interventions in ARR Year 2**



**Figure 19. Hospital Changes to Metrics in ARR Year 2**



Proposals for new interventions and metrics were diverse and spanned the care continuum.

*Potential plans for new interventions included the following:*

- Broaden risk assessments all-cause admissions
- Expanding Teachback population to include all units and diagnoses
- Examining whether a Care Coordinator's presence at the follow-up visit impacts the patient's ability to attend his or her first follow-up appointment
- Promote and expand palliative care consults
- Establish community and provider partnerships for resources for uninsured and underinsured patients
- Create processes for assuring provider accuracy in linkage to post-acute care
- Develop processes for scheduling post-discharge appointments
- Contract with an outpatient pharmacy to assist with medication management
- Develop partnerships with SNFs that serve the surrounding community to improve communication and to enhance the SNFs' abilities to manage complex patient symptoms without returning patients to the ED
- Improve discharge planning for patients leaving SNFs

*Potential plans for new metrics included the following:*

- Number of medication errors corrected by the pharmacist
- Proportion of patients who returned to the ED within 72 hours after discharge
- Inpatient discharges for patients that returned to the ED within 72 hours

- ED utilization 30-days post discharge
- Percentage of patients with post-acute follow up or referral made at discharge
- Readmission rates at 60- and 90-days post discharge
- Readmission rates by provider
- Relative percent increase or decrease in readmissions at the unit level
- Clinical review of readmitted patients
- Refine metrics to capture differences by DRG groups

## Trends in Admission-Readmission Reduction Interventions

The qualitative survey asked hospitals to discuss the effectiveness of their interventions for 1) different conditions, 2) by practitioners, 3) by readmission source, and 4) at different time frames.<sup>1</sup> While most hospitals did not collect or analyze their data at this level of detail during Year 1, the following sections summarize preliminary responses provided by the hospitals regarding these trends.

### Different Conditions

While not carefully tracked across ARR metrics, several hospitals reported differences in the effectiveness of interventions across medical, surgical, transplant, and oncology populations at risk for readmission. Mental health and substance abuse were thought to be important factors triggering admissions and readmissions within the medical population. For surgical patients, the extent of the surgery and the likelihood of complications had an important role in readmissions. Across all populations, the patient’s underlying functional status and health literacy played a key part in intervention success.

Several hospitals that originally focused only on subpopulations (HF, COPD) are planning to broaden the scope of their target populations by adding specific DRGs to the “high risk” classification. Specific examples include interventions for patients with renal disease, sickle cell anemia, and surgical site infections.

Some hospitals learned that their interventions could be applied to any vulnerable patient group because successful programs were primarily related to enhancing overall self-management skills and establishing goals of care that resonated with the patient and family.

### Practitioner

Most hospitals did not examine the impact of interventions by practitioner. Of those that did track this information, most did not notice differences in metric results by type of provider. One hospital reported that interventions were more difficult to implement in patients cared for by residents or faculty in

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<sup>1</sup> Readmission rates for different conditions refer to examining readmission rates by diagnosis, severity of illness, and/or comorbidities. Readmission rates by practitioner refer to examining rates by physician to determine if patterns of readmissions are different by individual or specialty. Readmission rates by source refer to evaluating rehospitalization rates according to the location from which patients are readmitted (home, nursing home, etc.). Readmission rates at different times refer to examining rehospitalization rates within different time frames, such as 30 days, 60 days, or 90 days (*Osei-Anto, 2010*).



teaching hospitals. Another hospital indicated that psychiatrists had more difficulty communicating with patients after discharge than other providers.

While few hospitals captured readmission rates by practitioner in Year 1, several hospitals are beginning track this information for Year 2. One hospitalist service has begun to do a formal "case review" on failed discharges (i.e., patients who return within 30 days). Another hospital noted that staff is currently evaluating practitioners with higher readmission rates.

### **Readmission Source**

Most hospitals did not track or report differences in the effectiveness of interventions by readmission source. However, one hospital noted that it had begun to tailor interventions according to discharge location. Three hospitals indicated that there were higher readmission rates from patients in SNFs and noted challenges coordinating interventions with SNF staff. Patients residing in SNFs may also be more ill than patients discharged to home. Several hospitals reported developing interventions for patients discharged to home and expected the programs to be more effective in home settings.

### **Different Time Frames**

Most hospitals did not capture readmission rates at time frames beyond 30 days and noted that they expected their interventions to be most useful in preventing rehospitalizations within 7-30 days. One hospital noted that its highest readmission rates are within 7 days and attributed this finding to time required post-discharge for certain interventions to take effect, such as appointment scheduling or telephone follow up. For example, if follow up phone calls or physician visits are scheduled to take place one week after discharge, the hospital may lose the window of opportunity to intervene.

## **Other Important Factors for Measuring Readmissions**

The HSCRC is in an ongoing collaboration with the Chesapeake Regional Information System for Our Patients (CRISP), which is the State's designated health information exchange (HIE) organization, to create a unique patient identifier that will enable tracking patients across the hospitals in the State and monitoring the impact of ARR and Total Patient Revenue (TPR) in inter-hospital readmissions in almost real time.

As a means to extend the program to all readmissions, the Commission adopted regulations that required all acute hospitals to connect with CRISP by December 2011. These rules are critical in providing the foundation for ARR Phase II in which hospitals will be held accountable for inter-hospital readmissions.

## Conclusions and Next Steps

Findings from Year 1 of the ARR program confirm that addressing admission-readmission is complex. It involves coordinating pharmacists, hospitalists, community physicians, mental health providers, ED case managers, social workers, and SNF personnel to identify and manage the host of clinical, environmental, and social factors influencing a patient's health before and after hospital discharge. Because preventing avoidable admissions requires a community approach with involvement from stakeholders along the care continuum, hospitals are challenged to incentivize payers, the community, and the patient to engage in health management activities. Ultimately, hospitals must find the appropriate balance between length of stay and improving care transitions to reduce unnecessary readmissions.

Findings from ARR Year 1 will help hospitals establish baseline levels for metrics so they can judge their relative improvement over time for their specific patient populations. A challenge for hospitals moving forward will be to identify the strategies that are most influential in lowering admissions and readmissions. When hospitals apply multiple interventions at one time, it is challenging to sort out what "worked" to prevent certain admissions or readmissions. It may be difficult to disentangle the teaching, the follow-up phone call, the assistance scheduling an appointment, the home visit to review red flags, the palliative care consult, a family member taking charge, and/or better nutrition to determine what strategies are effective. However, while it is important for hospitals to monitor the success of different interventions, literature suggests that there is no single strategy to address the factors contributing to admissions and readmissions (*Williams, JAMA, 2013*). A recent analysis of data from the Medicare population found that readmissions after heart failure, myocardial infarction, or pneumonia occur frequently throughout the 30-day post-discharge period, and that only 10 to 35 percent of readmissions are due to the same cause as the original hospitalization (*Dharmarajan, JAMA, 2013*). These findings suggest that interventions adopting a holistic approach may be more effective in lowering admissions and readmissions than interventions targeted at one point in the care pathway or focused on preventing readmissions for a specific condition. Moving forward, hospitals must consider programs that support patients at risk for a variety of episodes throughout the 30, 60, and 90-day post-discharge period.

The results of this report should be considered in the context of measuring readmissions using electronic medical records linked with the State's health information exchange which will provide a benchmark for admissions and readmissions across ARR hospitals. Future analyses of patient records will allow hospitals and regulators to better understand trends in 30-day readmission rates and the ability to more comprehensively assess whether hospitals' interventions are effective. The HSCRC's collaboration with the Chesapeake Regional Information System for Our Patients (CRISP) (the State's designated health information exchange (HIE) organization) to create a unique patient identifier will enable the HSCRC to track readmissions between hospitals (see Appendix II). This partnership will help the State monitor the impact of ARR as well as Total Patient Revenue (TPR) and other future payment models on inter-hospital readmissions and support statewide accountable for inter-hospital readmissions.

In future modifications to ARR, HSCRC staff will recommend enhanced parameters regarding process and outcome metric development and reporting based, in part, on the findings from this analysis.

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## Appendix I. Medicare Readmissions Reduction Program

As stipulated in the ACA, as of October 2012 CMS had developed 30-day risk-standardized excess readmission ratios for acute myocardial infarction, heart failure, and pneumonia. The excess readmission ratio measures a hospital's readmission performance relative to the national average for the hospital's set of patients with specific the three conditions. It is calculated by dividing the observed readmission rate for a hospital by the expected readmission rate if the hospital's patients were treated in an "average national hospital".

- **Excess readmission ratio** = risk-adjusted observed readmission rate/ risk-adjusted expected readmission rate

The readmission rate is defined as follows:

- **Denominator (index discharges)** = patients discharged after hospitalization for HF, AMI, or pneumonia, excluding persons who left against medical advice, who were transferred to another acute care facility, or who were discharged dead. A hospitalization that counts as an index case cannot also be a subsequent 30-day readmission.
- **Numerator (readmissions)** = rehospitalizations among index discharges within 30 days, excluding "planned" readmissions.

The excess readmission ratio is based on discharges during a three-year period of July 1, 2008 to June 30, 2011 and requires a minimum of 25 cases per condition. To allow for fair comparisons, readmission rates are risk adjusted based on differences in patient demographics, comorbidities, and patient frailty. The program excludes Medicare beneficiaries receiving services through Medicare Advantage plans.

At the beginning of 2013, hospitals were assessed a penalty of up to 1 percent of their Medicare revenue for the fiscal year. Penalty caps are slated to increase to 2 percent by 2014 and 3 percent by 2015 (*Kocher, JAMA, 2011*). Medicare will be expanding its policy to encompass additional conditions by 2015.

## Appendix II: Collaboration with CRISP to Track Inter-hospital Readmissions

The HSCRC collaborated with the Chesapeake Regional Information System for Our Patients (CRISP) to create a unique patient identifier to track patients across the hospitals in the State of Maryland. The Commission adopted regulations that require all acute hospitals to connect with CRISP by December 2011.

### *Approach*

CRISP uses multiple Admission-Discharge-Transfer (ADT) HL7 messages from hospitals to reconstruct a patient's visit. They create scripts to aggregate all messages from the same patient account to determine the visit's type (inpatient, ER, etc.) and admission and discharge times. Once a visit is created, CRISP uses a probabilistic matching algorithm to assign a Master Patient Index (MPI) to each unique patient. The MPI will enable HSCRC to track patients across settings and providers of care.

### *Challenges*

To date, significant progress has been made in the matching of CRISP and HSCRC data; yet there are still some challenges, particularly with creating the visits. There is a standard ADT definition; however, different hospitals and Electronic Medical Record (EMR) applications use different interpretations for the messages. The following are some of the common problem areas:

- Reconstruction of visits. Hospitals use their billing system to generate quarterly visit-level reports to HSCRC. CRISP receives ADT messages that come from the hospital's EMR system, which does not include the billing information. Using ADT messages is less accurate than using complete visits from the billing system, but it would require considerable time and resources for hospitals to transmit billing data in real-time and not all hospital billing and accounting systems have this capability.
- Inconsistent Patient Class (PTCLASS) Flags. The CRISP script requires the hospital to send standard Patient Class flags (ex. I for inpatient) in the ADT message in order to process the messages properly. Some hospitals did not include these flags in the messages or they submitted non-standard PTCLASS flags. For Meritus Medical Center, CRISP did not receive PTCLASS flags until the end of July, and therefore the March – May comparison scores in Table 1 shows the hospital as having no matches. For hospitals that use non-standard PTCLASS flags, CRISP has to map the non-standard classes to the standard classes in order to process the messages properly. CRISP is working with individual hospitals on this issue.
- Observation Patients. This is one of the biggest challenges for CRISP because visits that appear to be inpatient according to the ADT message may actually be observation visits. Depending on the hospital, CRISP has to create special rules that use patient location, message sequence, or some other data field to convert these inpatient visits to observation visits.

- Other Visits Types. These visits are reported to HSCRC on a separate inpatient submissions (ex. chronic/rehab or psychiatric visits) or otherwise not reported to HSCRC because there were no charges incurred for the visit (ex. research patients). For these cases, CRISP has to work with hospitals individually to identify markers from the ADT message to exclude the visits from being reported as an inpatient visit.
- Diagnosis/Disposition Information. There are certain rules that are applied for reporting purposes that depend on the discharge diagnosis and/or patient disposition. CRISP is adjusting their framework to take these values into consideration but not all hospitals are transmitting these values on a regular basis. Furthermore, even if hospital sends this information, there is no standard rule to aggregate them into meaningful groups.
- Delayed Messages. In a few cases messages are delayed where one or more message(s) for a certain visit is not received until weeks or months after the initial message for the visit. This is not a common problem and only affects a few hospitals.
- Date Range for Processing Messages. A visit is mostly accurately constructed if CRISP processes ALL the messages for that visit and not just the most recent messages. While additional data improves comparison accuracy, it also adds to the processing time and storage requirements.
- Delays in Data Verification. For hospitals which are not engaged in working closely with CRISP to identify data issues, the data available from HSCRC for visit verification are at least 3 months delayed. If there are data issues which must be fixed by the hospital, it has taken some time for the change to be verified (as in the case of Meritus Medical Center).

### *Inpatient Visit Validation*

Table 1 illustrates the most current comparison scores between HSCRC and CRISP data for inpatient visits between March and May 2012. The matching score value ranges from -100 to 100; a score of 90 indicates an approximate 5% mismatch. The last column of Table 1 shows the weights used to adjust each hospital's comparison score to create the overall score. The weights reflect each hospital's relative inpatient visit volume.

**Appendix Table 1: Comparison Scores by Hospital**

<b>Hospital ID</b>	<b>Hospital Code</b>	<b>Comparison Score</b>	<b>Weight</b>
210010	UMMS_DRCHSTR	99.96	0.40
210037	UMMS_EASTON	99.70	1.37
210033	CHC	99.26	1.91
210030	UMMS_CHSTR	99.18	0.40
210043	UMMS_BWMC	98.94	2.79
210004	HCH	98.29	5.11
210016	ADVVAH	98.28	2.16
210038	UMMS_MGH	98.06	1.31
210034	MEDSTAR_HHC	97.39	1.63
210003	PGHC	97.30	1.92
210018	MGH	96.79	1.45
210061	AGH	96.64	0.43
210024	MEDSTAR_UMH	96.41	2.12
210015	MEDSTAR_FSH	96.06	3.49
210002	UMMS_UMMC	95.62	5.50
210028	STMH	94.89	1.23
210012	LBH_SHB	94.59	4.22
210060	FWMC	94.02	0.31
210057	ADVSGAH	93.15	3.73
210055	LRH	92.51	0.93
210007	SJMC	91.86	2.63
210019	PRMC	91.52	3.00
210013	BSB	90.99	0.94
210056	MEDSTAR_GSH	86.80	2.18
210054	SMH	77.45	2.54
210023	AAMC	77.15	4.87
210009	JHH	75.91	6.17
210040	LBH_NWH	74.18	2.04
210008	MHS	68.99	2.84
210058	UMMS_KERNAN	67.84	0.44
210039	CVMH	64.69	1.17
210017	GCMH	62.82	0.36
210048	HCGH	62.47	2.69
210005	FMH	61.90	3.11
210022	SUBURBAN	61.82	2.04
210035	CMC	56.31	1.12
210032	UHCC	51.07	1.00
210011	SAH	50.85	2.93
210051	DCH	48.71	1.67
210049	UCMC	48.12	2.12
210044	GBMC	45.84	3.13
210006	HARM	42.91	0.76
210027	WMHS	34.48	2.09
210029	JHH_BVIEW	32.59	3.20
210045	MCMH	19.15	0.06
210001	MMC	-100.00	2.52
	<b>Overall Score</b>	<b>74.36</b>	

### Scoring Weights

Weights are assigned to different types matches to create the comparison score above for each hospital (Table 2). For example, if the medical record number, patient account number, and admission and discharge dates all match completely, then those visits are given a weight of 1. Complete mismatches are given a weight of -1. Partially matched visits are given a partial weight. The compare score for the hospital is the sum of the weights for all categories.

**Appendix Table 2: Scoring Weights**

<b>Match Type</b>	<b>Weight</b>
<b>CRISP vs HSCRC IP:</b>	
Medical Record #, Patient Account # & Dates match	1
Medical Record # & Patient Account # match; Dates do not match	0.667
Medical Record # & Dates match; Patient Account # do not match	0.667
Patient Account # & Dates match; Medical Record # do not match	0.667
Patient Account # match; Medical Record # & Dates do not match	0.333
<b>CRISP vs HSCRC OP:</b>	
Medical Record #, Patient Account # & Dates match	-1
Medical Record # & Patient Account # match; Dates do not match	-1
Medical Record # & Dates match; Patient Account # do not match	-1
Patient Account # & Dates match; Medical Record # do not match	-1
Patient Account # match; Medical Record # & Dates do not match	-1
Data in CRISP but not in HSCRC IP or OP	-1
Data in HSCRC but not in CRISP	-1

### Next Steps

CRISP's new visits compilation framework is designed to enable the identification and compilation of ER visits. There is still considerable work that needs to be done to improve ER visit compilation before the reports become usable. CRISP intends to expand to other outpatient visits as well; however, they would have to work with hospitals to expand their data feeds to transmit ADT messages for outpatient visits.





# Admissions-Readmissions Reduction Program Interventions: Year 1 Results

***HSCRC***

Health Services Cost  
Review Commission

April 10, 2013

# Overview: ARR Interventions and Metrics

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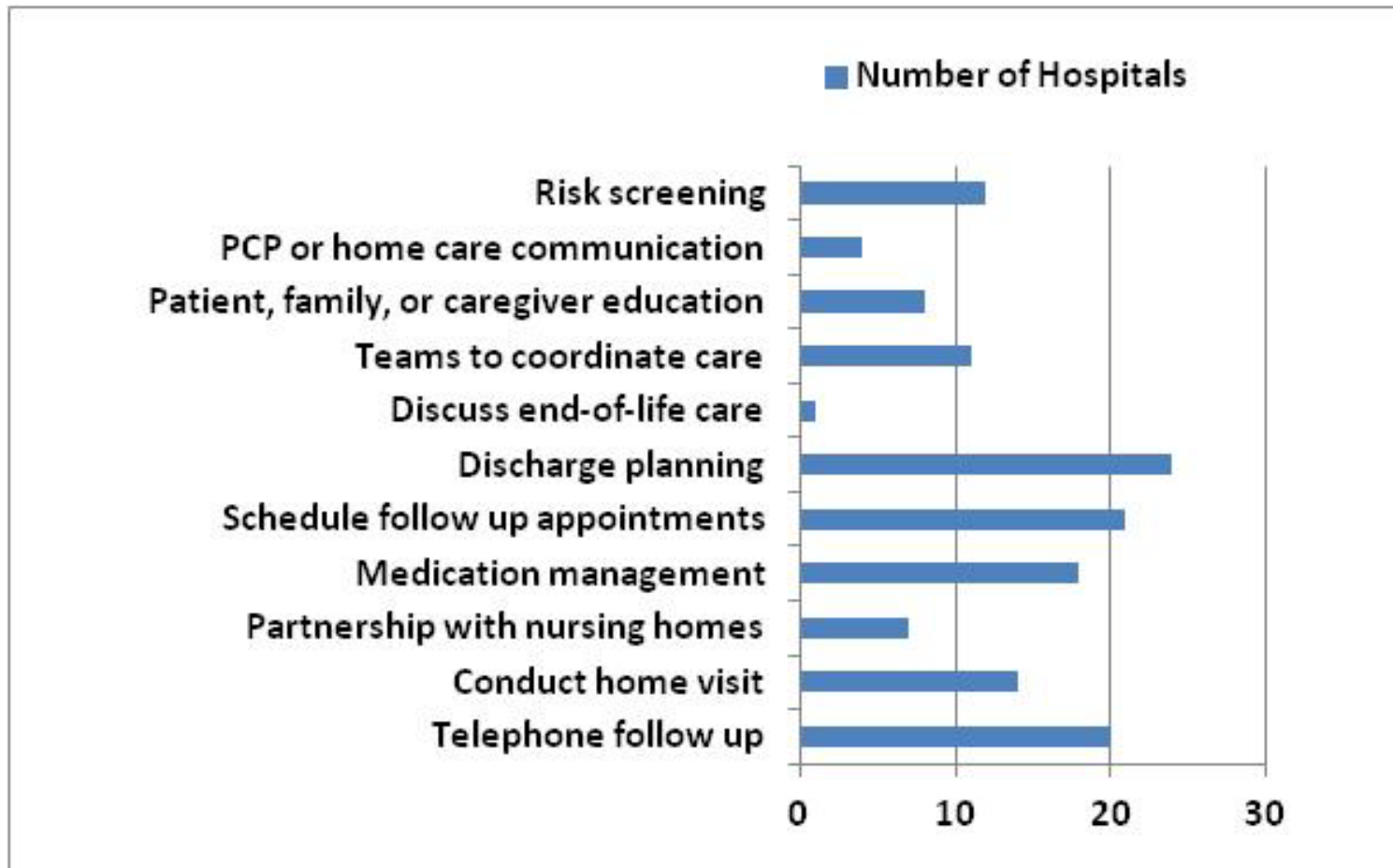
# ARR Intervention Plan Requirements for Initial Year FY 2012

- There is a growing body of evidence that bundles of interventions are effective at reducing readmissions.
- All 31 participating hospitals were required by HSCRC to develop a plan with evidenced-based interventions and metrics for success
- Hospitals completed a quantitative and qualitative report and submitted them to HSCRC for FY 2012 interventions plans.

# Results: Interventions and Metrics

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# Frequency of Types of Interventions Instituted by ARR Hospitals



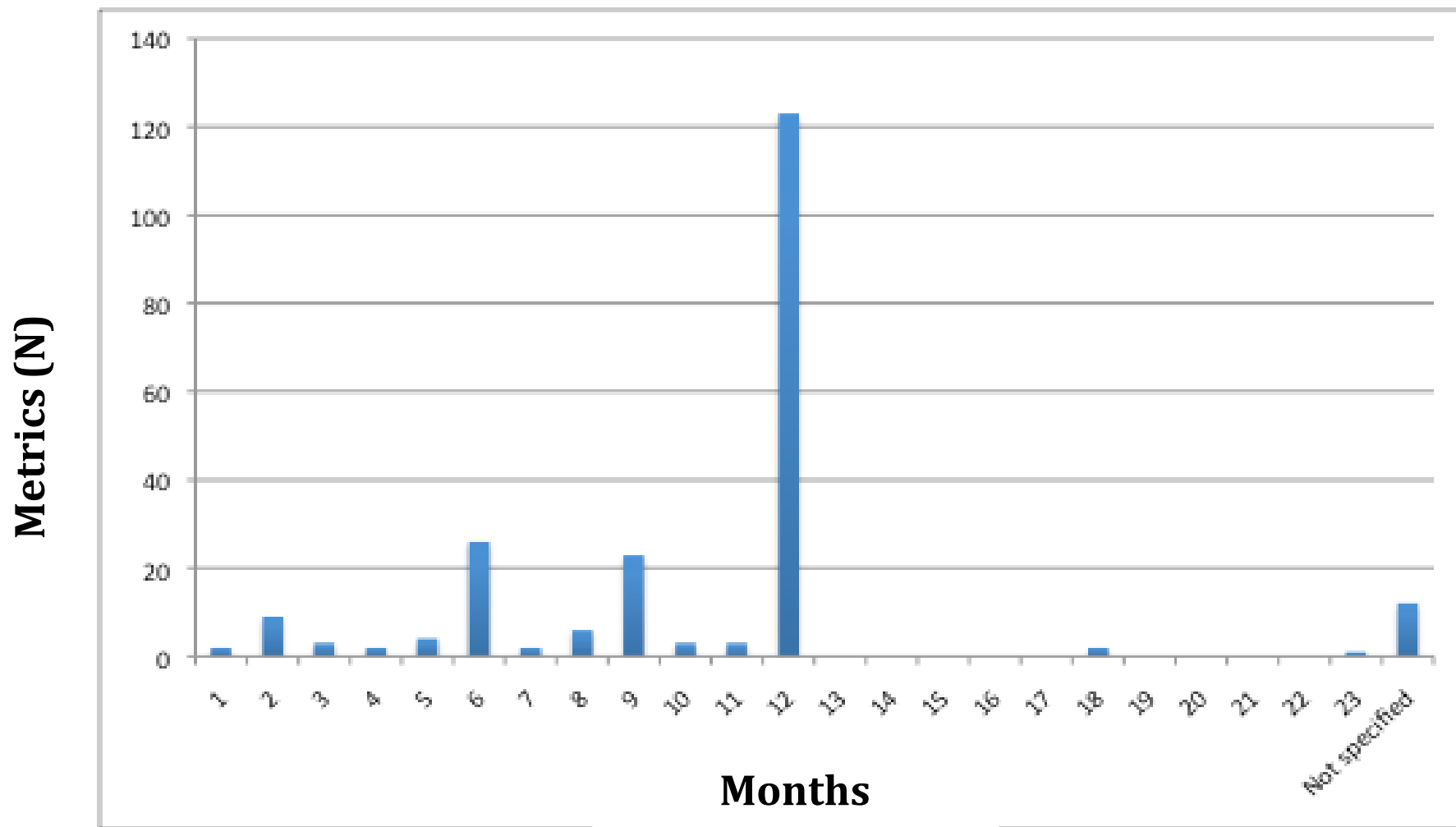
Note: Facilities within a hospital system were counted as individual entities. Hospitals may have multiple interventions within a category.

# Metrics used to monitor program effectiveness were diverse

## Example: Medication Management Intervention Metrics

<b>Types of Metrics</b>	<b>Number of hospitals reporting results/Number of hospitals using the metric</b>	<b>Mean length of implementation, months (range)</b>	<b>Process or outcome measure</b>
Medication reconciliation rate	4/10	6.11 (2-12)	Process
Medication received prior to discharge	1/1	12 (N/A)	Process
Charity care provision rate	2/2	9 (12-6)	Process
Readmission rate	2/2	12 (N/A)	Outcome
Medication error rate	3/3	9 (N/A)	Outcome

# Metrics' Data Collection Length of Time

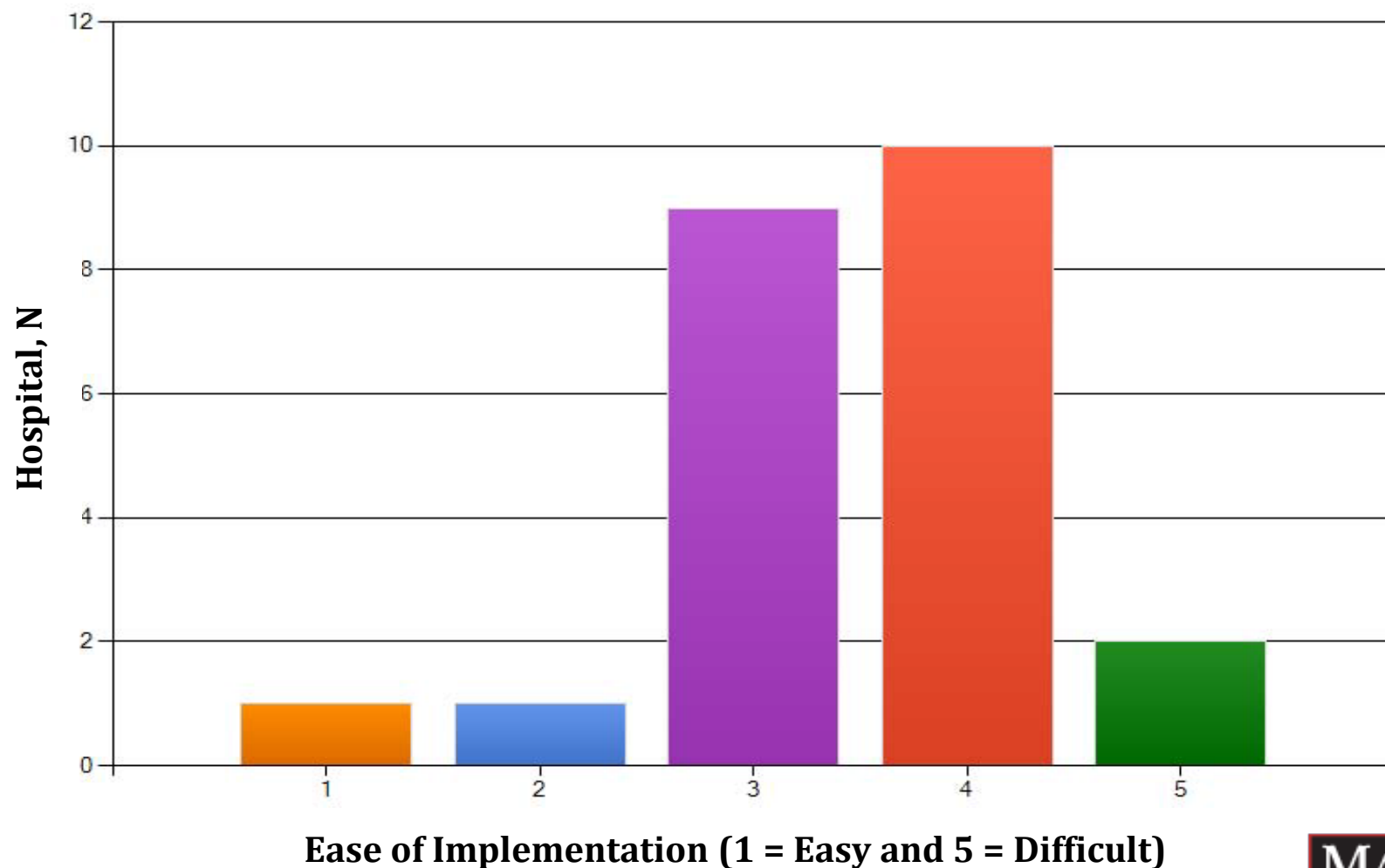


# Results: Hospital Experiences

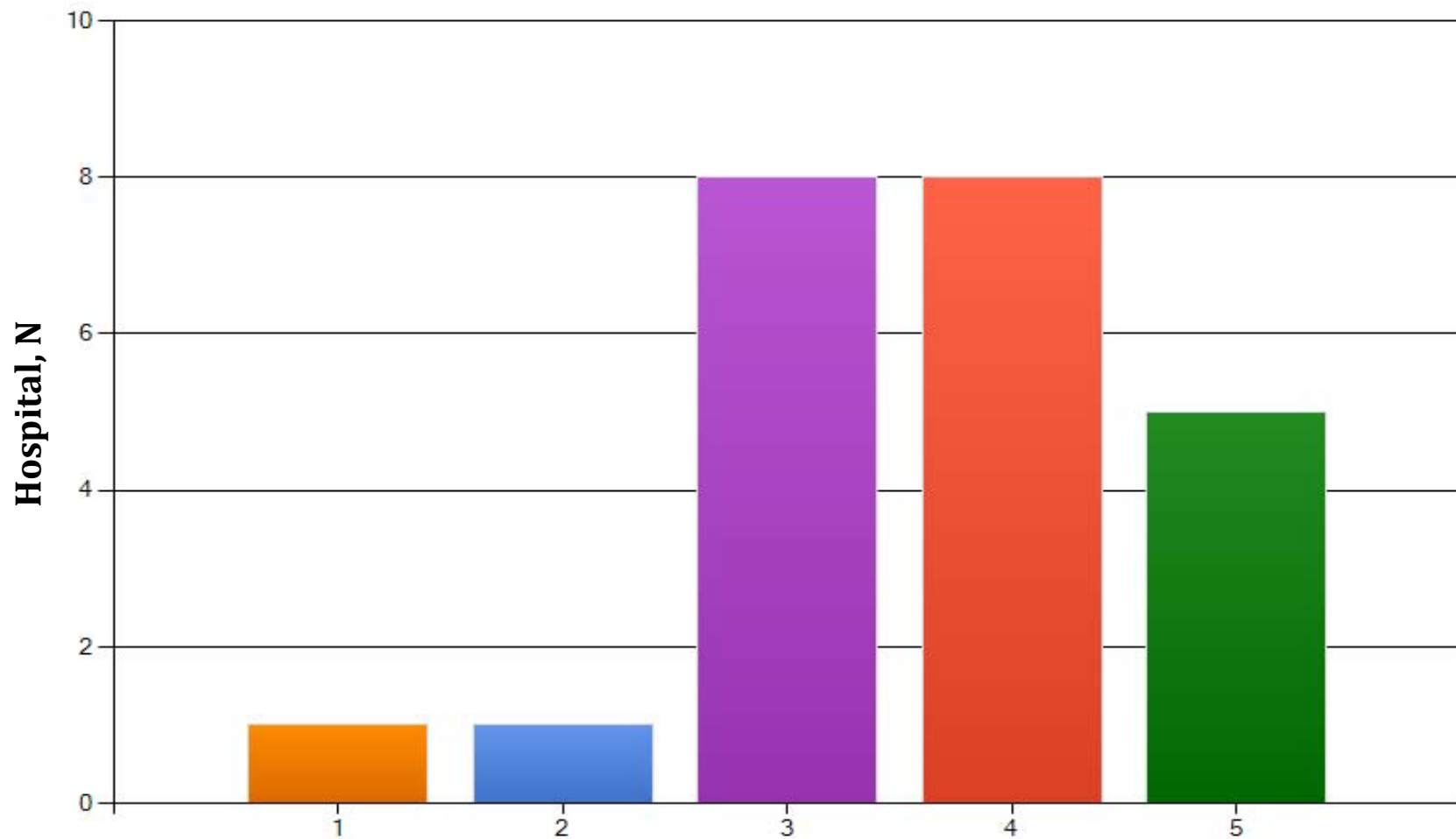
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# Hospital Rating of Intervention Implementation Ease



# Hospital Rating of Metric Monitoring Ease



Ease of Monitoring (1 = Easy and 5 = Difficult)

# Hospital Reported Successes of Metrics

- Help understanding the specific diagnostic categories of patients who were readmitted to their facilities
- Develop more thoughtful discharge planning and care coordination programs
- Guide quality improvement efforts
- Metric success was commonly reported for measurements of risk assessment and multidisciplinary teams interventions, such ED case management programs

# Hospital Reported Challenges of Metrics

- Hiring and managing new staff
- Technical difficulty with measurement
- Patient beliefs and behaviors
- Primary care physician (PCP) communication and appointment scheduling were frequently cited as challenging among the uninsured or underinsured because patients did not have identified PCPs
- Lack of dedicated personnel from the SNF to promote coordination

# Hospital Proposed Changes or Modifications to Interventions for ARR Year 2

- Few hospitals expect to make changes to interventions and metrics currently in place.
- 39.1% of hospitals reported that they plan to develop new interventions or new metrics to further promote readmission reductions in ARR Year 2.

# ARR Interventions: Next Steps

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# Collaborative Efforts going forward to Improve Interventions and Results

- For the *Transitions: Handle with Care* campaign, HSCRC will participate as Maryland Care Transitions Steering Committee member.
- HSCRC will convene a cross continuum work group to determine options for standardizing intervention plan and metrics reporting.
- HSCRC will leverage other measurement, analysis and reporting to monitor efforts to improve readmissions (e.g., the CTM 3 measure added to the HCAHPS survey)
-

# **Staff Recommendation**

**April 10, 2013**

The Commission staff recommends for final adoption revisions to the Relative Value Unit (RVU) Scale for Psychiatric Clinic services. These revised RVUs were developed by a sub-group of the Maryland Hospital Association's HSCRC Technical Issues Task Force. The sub-group's membership included representatives of the Psychiatric Clinic departments of many of the Maryland hospitals. The RVU scale was updated to reflect the revisions to the Current Procedural Terminology (CPT) codes mandated by the American Medical Association (AMA) and were approved by the Maryland Hospital Association's HSCRC Technical Issues Task Force. Hospitals will be required to calculate conversion factors to assure revenue neutrality as a result of this revision. Hospitals will begin using these revised RVUs effective July 1, 2013.

This recommendation was adopted by the Commission on April 10, 2013.



96549                      Unlisted chemotherapy procedure                      By Report

**PSYCHIATRY (EXCLUDES PARTIAL HOSPITALIZATION- PHP)**

In instances where a patient only sees an outside provider who bills professionally, the hospital may only report two RVUs regardless of the amount of time a patient spends with the outside provider. Two RVUs corresponds to a level one E/M visit that is used to report the facility component of an E/M visit when a clinic patient is seen only by an outside provider. (*See Professional Services Only Visit under Part II: E/M Component.*) The following RVUs are to be assigned only when the service is performed by a non-physician provider who does not bill professionally for the service:

90791	Psychiatric diagnostic evaluation (no medical services)	12
90792	Psychiatric diagnostic evaluation (with medical services)	18
+90785I	Interactive complexity (add-on code)	By Report

**Psychotherapy**

90832	Psychotherapy, 30 minutes	6
+90833	Psychotherapy, 30 minutes (add-on code to E&M code)	6
90834	Psychotherapy, 45 minutes	9
+90836	Psychotherapy, 45 minutes (add-on code, to E&M code)	9
90837	Psychotherapy, 60 minutes	12
90838	Psychotherapy, 60 minutes (add-on code to E&M code)	12
90839	Psychotherapy for crisis, first 60 minutes	12
+90840	Psychotherapy for crisis, each additional 30 minutes (add on code)	6
90853	Group Psychotherapy (other than that of multi-family)	3
90845	Psychoanalysis	By Report
90846	Family psychotherapy w/o patient	10
90847	Family psychotherapy w/ patient	10
90849	Multiple family group psychotherapy	By Report
90853	Group psychotherapy	3

**Other**

90865	Narcosynthesis for psychiatric diagnostic and therapeutic purposes	By Report
90870	Electroconvulsive therapy (ECT), single seizure. Performed and reported in OR	
90875	Individual psychophysiology ther-biofdbk w/ psychotherapy, 20-30 min	6
90876	Individual psychophysiology ther-biofdbk w/ psychotherapy, 45-50 min	10
90880	Hypnotherapy	By Report
90882	Environmental intervention for med management	By Report
90885	Psychiatric eval of records, reports & tests for diagnosis	By Report
90887	Interpret of psych or med exams & data to family	By Report
90889	Prep of report of pt status, hx, tx, or progress	By Report
90899	Unlisted psychiatric service or procedure	By Report

**Draft Recommendations on Continued  
Financial Support for the Maryland Patient  
Safety Center for FY 2014**

**April 3, 2013**

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

**This is a Draft to be considered at the April 10, 2013 HSCRC public meeting. Any comments on this draft must be emailed to Dianne Feeney at [dfeeney@maryland.gov](mailto:dfeeney@maryland.gov) by COB on April 24, 2013.**

# **Draft Recommendations on Request for HSCRC Financial Support of Maryland Patient Safety Center for FY 2014**

## **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 of 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. The initial recommendations provided funding to cover 50% of the reasonable budgeted costs of the Center. The Commission receives a briefing and documentation annually 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 has evaluated the reasonableness of the budget items presented and made recommendations to the Commission.

Over the past 9 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
- FY 2011 - \$1,544,594

- FY 2012 - \$1,314,433
- FY 2013 - \$1,225,637

For FY 13, the Commission held in abeyance \$100,000 of the requested funding pending MPSC development and submission to the Commission a feasibility study and options for relocating the MPSC to space outside of the existing Maryland Hospital Association complex in order to facilitate and encourage providers in addition to hospital providers to collaborate and participate in MPSC programs and activities. The study and proposed options were submitted the Commission on November 9, 2012; the study concluded that, based on the significant related expense, the MPSC should not move forward with the relocation.

In addition, the FY 2013 recommendation required that the Center investigate and take steps to improve standardization of data collection practices of participants in the various collaborative and learning network programs. MPSC indicated in its report on October 31, 2013 that it had begun and would continue to incorporate proactive site visits with participating facilities, create an audit tool for assessment of organizational compliance with data collection from staff interviews, documents review and observation.

The MPSC reports on its relocation feasibility study and data collection standardization work are in Appendix I.

### **Maryland Patient Safety Center Request to Extend HSCRC Funding**

On March 28, 2013, the HSCRC received the attached request for continued financial support of the MPSC through rates in FY 2014 (Appendix II). The MPSC is requesting a total of \$1,200,000 in funding support from HSCRC.

### **MPSC Cash Reserves**

HSCRC staff was apprised at the March 28, 2013 meeting that the FY 13 and proposed FY 14 budgets as submitted do not include any allocation for the MPSC's cash reserves. HSCRC staff subsequently learned on April 2, 2013 that the MPSC currently has cash reserves of \$1,101,593, approximately 256 days cash on hand, and anticipates this will continue through the end of this fiscal year.

The MPSC indicates their Certified Public Accountant advised that average days cash on hand for similar organizations are 6 – 9 months. However, due to the high level of concentration risk from the HSCRC funding, and the conservative nature of the Board, the Board authorized setting the following amounts going forward for cash reserve:

1. 365 days cash on hand for operations.
2. \$250k designated for unfunded initiatives that may arise.

Of particular concern is in the event that the HSCRC funding was not available, the Center would still be able to operate for a year while reorganizing the funding stream. The \$250k figure is based on the cost of the prior unfunded initiative (Hand Hygiene) picked up by the Center.

The MPSC notes that these amounts are something the Center seeks to accomplish over a period of time through increased funding

### **Strategic Partnerships**

The MPSC has established and continues to build new strategic partnerships with key organizations to achieve its mission and goals. The organizations with which they indicate they are working closely and anticipate continuing to do so for FY 2014 and beyond are described below.

- **Courtemanche & Associates** - An interdisciplinary healthcare firm that serves healthcare organizations to improve care through compliance with regulatory and accreditation requirements.
- **ECRI Institute** – A PSO and national vendor of adverse event reporting services.
- **Health Facilities Association of Maryland** - A leader and advocate for Maryland’s long-term care provider community.
- **Institute for Patient -and Family- Centered Care** – A non-profit organization founded in 1992, which provides essential leadership to advance the understanding and practice of patient- and family-centered care.
- **Institute for Safe Medication Practices** – The leading national organization educating others about safe medication practices.
- **Maryland Healthcare Education Institute** – The educational affiliate of the Maryland Hospital Association.
- **Maryland Hospital Association** - The advocate for Maryland's hospitals, health systems, communities, and patients before legislative and regulatory bodies.
- **LifeSpan Network** - The largest senior care provider association in the Mid-Atlantic, representing more than 300 senior care provider organizations in Maryland and the District of Columbia.
- **The Ambulatory Surgery Center Association** - The national membership association that represents ambulatory surgery centers (ASCs) and provides advocacy and resources to assist ASCs in delivering high quality, cost-effective ambulatory surgery to the patients they serve.
- **Johns Hopkins School of Medicine / The Armstrong Institute for Patient Safety and Quality** – The patient safety center within Johns Hopkins Medicine.

### **Maryland Patient Safety Center 2013 Activities, Accomplishments, and Outcomes**

Key highlights of the Center’s accomplishments include:

- Developed and launched new data collection platform for Hand Hygiene Initiative
- Increased Hand Hygiene participation rate to 95%<sup>1</sup>
- Began process for improvement of data collection standards and integrity.

- Expanded outreach to other providers i.e., long term care, ambulatory surgical centers, primary care .
- Established partnership with Maryland Office of Health Care Quality to identify and address emerging patient safety issues
- Increased revenues from Annual Conference through registration fees and sponsorships.

The various initiatives the MPSC is currently engaged in are described below along with the results achieved to date.

### ***MEDSAFE***

Launched in 2000, MEDSAFE participants use the Institute for Safe Medication Practices (ISMP) Safety Self-Assessment® to assess the safety of medication practices within their organization. As reported in last year's recommendation, in 2012, 42 of 46 hospitals in Maryland completed the ISMP self-assessment survey. On a regular basis, aggregate results are analyzed and shared with hospitals to allow for statewide comparisons. Results from the survey, particularly improvement opportunities, are shared and discussed at the Annual MEDSAFE Conference. In 2012, the Conference had its largest level of participation to date with 220 healthcare professional attendees, including pharmacists, medication safety officers, nursing professionals and quality & safety leaders and addressed topics including:

- Using ISMP Self-Assessment Results for Medication Safety Improvements
- Improving Staff Education & Competency
- Using an Active Surveillance System as a Risk Identification Strategy
- Reducing Hospital Readmissions Related to Medication Use
- National Drug Shortages

### ***SAFE from FALLS***

The purpose of the SAFE from FALLS program is to reduce the incidence and severity of patient and resident falls in hospital, nursing home, and home health settings in Maryland. Launched in 2008, the SAFE from FALLS program includes hospitals, long term care facility and home health care provider participants. Each organization collects data on falls, education, and best practices for preventing falls. This is an important area for the MPSC to focus as:

- Falls are the second leading cause of unintentional injury deaths in the U.S.
- The incidence rates for falls in hospitals and nursing homes is almost three times the rate for persons living at home.
- Each year, 50% of hospitalized patients are at risk for falls and almost half of those who fall suffer an injury increasing costs and length of stay.
- The average hospital stay for patients who fall is 12.3 days longer and injuries from falls lead to a 61% increase in patient care costs.
- Falls are one of the largest categories of reported adverse events and are estimated to cost more than \$20 billion a year nationally.

Key results from the SAFE from FALLS work include:

- Increased from 56 to 92 participant organizations (33 hospitals, 44 long term care, 15 home health).
- Acute care rate of falls trend is flat— approximately three per 1000 patient days. (9/09 – 12/12).
- Acute care rate of falls with injury trending downward—per 1000 patient days from 26 (9/09) to < 20 (12/12).
- Long term care trend—
  - trend increasing from just above four (4) (9/09) to six (6) (12/12)
  - rate with injury trending downward from approx. 22 to less than 20 (9/09 – 12/12)
- Home Health rate flat— at approximately 41 with similar results for rate with injury.

Appendix III contains the figures illustrating the above trends.

### ***Perinatal and Neonatal Learning Collaborative***

The purpose of the perinatal and Neonatal Learning Collaborative is to reduce elective inductions and c-sections prior to 39 weeks without medical indication, improve neonatal outcomes, and standardize the discharge process for mothers and infants including the late pre-term infant. Table 1 below outlines the implementation and ongoing work timeline of what is now the Perinatal and Neonatal Learning Collaborative.

Key results of the Perinatal and Neonatal Learning Collaborative include:

- 30 hospital participants
- Induction rate >39 weeks without medical indication is trending downward from 0.7% to 0.3% for the period 10/10 – 10/12
- C Section rate >39 weeks without medical indication is trending downward from 2.4% to .09% for the period 10/10 – 10/12
- 

Figures illustrating the above trends are in Appendix III.

### ***Hand Hygiene Collaborative***

The purpose of the Hand Hygiene Collaborative is to reduce preventable infections in Maryland through better hand hygiene. Key components of the program include use of unknown observers to record hand cleansing upon exit from or entry to patient rooms, and a requirement that 80% of the units of a participating hospital collect 30 observations each month. Participation for FY 2013 has risen to 44 of 46 hospitals, with an overall compliance rate of 88% of caregivers performing proper hand washing for the units in the hospitals that are participating.

The MPSC has established the following as their current or near term goals for the Hand Hygiene Collaborative:

- Facilitate continued and increased participation among hospitals and units – goal is to have statewide hospital participation in hand hygiene compliance.

- Distribute CEO-level “Infection Dashboards” – Hospital CEOs now receive a quarterly report that compares their hand hygiene compliance rate to the hospital’s central line-associated blood stream infection rate. Next quarter, catheter-associated urinary tract infection data will be added as well.
- Implement enhancements to data collection tool – work will get underway to make the submission of data easier and to allow participants to access their own data on demand, and to see trend data over time.
- Support Department of Health and Mental Hygiene in a statewide public campaign on hand hygiene.

In addition to the goals articulated by the MPSC, HSCRC staff has urged MPSC staff to use other publically available infection rate data, such as the Maryland Hospital Acquired Conditions (MHAC) infection PPCs, to corroborate their findings, identify focus areas for improving the Collaborative, etc.

### ***Adverse Event Reporting***

The MPSC continues to use the ECRI adverse event reporting system and offers it to all hospitals in the state for self-reporting of adverse events. Hospitals may select a Patient Safety Organization of their choosing with whom they submit confidential adverse event data. Seven hospitals submitted their data to the MPSC ECRI system as of March 2012, but the Center indicated it anticipated a modest increase in participation in the coming year. As of the drafting of this document, the number of hospitals reporting to the ECRI was not reported by the MPSC to HSCRC.

### ***Spreading Excellence through Educational Programming***

Educational programs are designed to train leaders and practitioners in the health care industry and share strategies to improve patient safety and quality. These programs have focused on the following areas:

- Patient safety tools training including root cause analysis, and failure modes and effects analysis;
- Professional development programs;
- Process improvement including LEAN workshops and Six Sigma certification;
- TeamSTEPPS Train-the-trainer programs; and
- Sharing information on MedSAFE, hospital information technology, and patient falls.

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 savings of up to \$2.2 million due to reduced cases of missing or reordered medications.

In their FY 2013 budget request, the Center reported the numbers of hospital staff participating in these programs for 2012. Updated numbers on these trainings were not reported by MPSC to HSCRC as of the drafting of this document.



## **Key Program Activities for FY 2014**

### ***Conferences***

The Annual Patient Safety Conference provides awareness, education and the exchange of best practice solutions. The annual MedSafe Conference concentrates on the prevention of medication errors with an emphasis on processes and technology.

Objectives of these conferences are to:

- Educate providers regarding pertinent patient safety / medication related issues
- Expand geographic and participant reach of the Center
- Increase participation levels
- Increase revenue generation
- Establish Center as recognized educational resource

The vendor MPSC will use to convene these conferences is the Maryland Healthcare Education Institute

### ***Patient Safety Certification***

The certification will utilize both traditional classroom instruction and practical application methodology; using the Patient Safety Officer (PSO) as the focal point. The certification would extend to both individuals and institutions.

Key objectives of this program are to:

- Identify and solve actual patient safety issues
- Engrain “culture of patient safety”
- Establish patient safety as an institutional focus
- Develop teamwork approach to solving patient safety issues
- Empower participating staff to be patient safety leaders
- Provide real and measurable impact

The vendor MPSC will use the help implement this program is Courtemanche & Associates.

### ***Patient/Family Centered Care Integration***

The Maryland Patient Safety Center recognizes that patient/family involvement is an integral part of patient safety and proposes to incorporate this concept into current and new programs.

•Objectives of this program are to:

- Integrate patient/family centered concepts into applicable Center programming
- Identify patient/family participation opportunities
- Establish patient/family involvement as a Center program priority
- Develop teamwork approach between patients/families and providers
- Establish outcome metrics

The vendor MPSC will use for this project is Institute for Patient – and Family- Centered Care.

### ***Caring for the Healthcare Worker***

The purpose of this initiative is to recognize those factors and their impact that affect a healthcare worker’s ability to safely carry out their duties while offering solutions and actions that will significantly decrease their influence on patient safety. Key objectives for this program are to

- Reduce the number of harmful patient safety incidents
- Increase patient satisfaction scores
- Improve worker satisfaction
- Increase worker retention rates

The vendor MPSC will use for this program is the Johns Hopkins University School of Medicine / Armstrong Institute for Patient Safety and Quality.

### ***Safety Initiatives***

MPSC will continue its efforts in the three initiative areas it has worked on for several years.

- Falls Reduction & Prevention of Harm Support a coordinated communication and improvement campaign through the “SAFE from FALLS” program.
- Hand Hygiene Improvement Reduce hospital acquired infections through better hand hygiene compliance.
- Perinatal/Neonatal Learning Network Apply newly developed risk assessment tool for mother and babies to determine discharge referral needs; decreasing readmissions and improve health outcomes for mother and infant.

The Center will accomplish this work directly with consultative support from Maryland Hospital Association; of note, the Center has added two additional staff members including a program manager.

### **Budget and Funding Sources for FY 2013 and Proposed for FY 2014**

In, FY 13, MPSC continued its efforts to work with its partners to secure program-specific funding, and estimates the amounts they will secure for FY 2014 as illustrated in Table 1. Staffing and fringe expenses proposed for 5 FTEs, which are allocated to the program areas in the expenses, total \$669,050.

**Table 1. Proposed Revenue and Expenses**

<b>REVENUE</b>	<b>FY 2014</b>		<b>FY 2013</b>	
	<b>Budget</b>		<b>Budget</b>	
Cash Contributions from MHA/Delmarva	200,000		400,000	
Cash Contributions from Hospitals	300,000		300,000	
HSCRC Funding	1,200,000		1,225,637	
Education Session Revenue	150,000		203,600	
Long-term care Revenue	50,000		100,000	
Conference Registrations	240,000		140,000	
Sponsorships	75,000		29,400	
Grants/Contributions	160,000		250,000	
<b>Total Revenue</b>	<b>2,375,000</b>		<b>2,648,637</b>	
<b>EXPENSES</b>	<b>FY 2014</b>	<b>FY 2014</b>	<b>FY 2014</b>	<b>FY 2013</b>
	<b>MPSC</b>	<b>Consultants</b>	<b>Total</b>	<b>Budget</b>
Administration	562,450		562,450	1,030,561
Outpatient Dialysis (previously committed)	75,000		75,000	75,000
Programs				
Education Sessions		189,000	189,000	298,000
Annual Patient Safety Conference		427,650	427,650	295,000
MEDSAFE Conference		52,850	52,850	38,500
Caring for HC	65,300	88,550	153,850	
Patient/Family Centered Care	59,400	16,150	75,550	
Safety Initiatives	215,550	165,000	380,550	986,577
Certification	129,600	327,200	456,800	
<b>Total Expenses</b>	<b>1,107,300</b>	<b>1,266,400</b>	<b>2,373,700</b>	<b>2,723,637</b>
<b>Net Income (Loss)</b>	<b>1,300</b>		<b>(75,000)</b>	

## Findings

As was noted in the FY 2013 recommendation, the All-Payer System has provided funding support for the Maryland Patient Safety Center during its initial nine 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. However, the Center has provided limited evidence that the programs have resulted in cost savings, and only to the extent that these savings relate to individual programs and for limited periods of time. The Commission desires that the Center provide more information that would:

1. Show program outcomes on a longer term basis along with concomitant savings; and
2. Demonstrate the magnitude of the public’s return on investment of funding support.

Staff continues to believe that the programs of the MPSC seem to be well conceived. MPSC has worked particularly hard at beginning to establish relationships with providers across the continuum of care in the past year.

As noted in last year's recommendation, staff again notes that there tends to be a general lack of coordination with other patient-safety related initiatives across the state. Staff believes there that should be a broader plan for patient safety in Maryland, and that the MPSC should take a lead in that plan. In addition, the statewide patient safety plan should be considered in the context of overall delivery system reform. Over the past year, MPSC has made efforts to better coordinate with State and other entities, such as the Department of Health and Mental Hygiene, Office of Health Care Quality, and the Maryland Health Quality and Cost Council, on State priorities. The roles of the various State entities involved with patient safety should be clearly defined.

Beginning in FY 2010, the Commission's recommendations stated that the percentage of MPSC's total should decline each year and in no year should the dollar amount be greater than the previous year. The intent was to reduce support gradually and to encourage the MPSC to aggressively pursue other sources of revenue (including from other provider groups that benefit from Center programs) to help support the Center into the future.

In FY 10, the percentage support was reduced to 45%; however, recognizing the difficulty of raising funds during tough economic times, the Commission retained the 45% contribution in FYs 11 and 12. Nonetheless, the Commission's amount of support has declined on a dollar basis in each of the past 4 years and is proposed to decrease in FY 14, however the percentage of the total budget proposed is just over 50%.

• FY 2009 -	\$1,927,927	
• FY 2010 -	\$1,636,325	-15.1%
• FY 2011 -	\$1,544,594	- 5.6%
• FY 2012 -	\$1,314,433	-14.9%
• FY 2013 -	\$1,225, 637	-6.8%
• FY 2014 -	\$1,200,000	

Prior to FY 2013, the Commission approved a reduction of Commission support by half of the budget carryover from the prior year; this policy made it difficult for the Center to build up a reasonable budgetary reserve and the Commission approved removing this requirement for FY 2013. As previously noted, the Center reported to HSCRC on April 2, 2013 it has approximately \$1,101,593.

### **HSCRC Staff Next Steps to Develop Recommendations**

As HSCRC's charge is to evaluate the reasonableness of the budget request and has not had sufficient time to understand the Center's reserves, staff will defer making recommendations on MPSC's proposed projects and budget pending completion of additional information gathering and analysis.

6820 Deerpath Road  
Elkridge, MD 21075



410.540.9210 (Phone)  
410.540.9139 (Fax)

November 9, 2012

Steve Ports  
Principal Deputy Director  
Maryland Health Services Cost Review Commission  
4160 Patterson Avenue  
Baltimore, Maryland 21215

Dear Mr. Ports:

Pursuant to the Final Recommendations on Continued Support of the Maryland Patient Safety Center dated May 2, 2012, specifically staff recommendation 4; please find enclosed the schedule of expenses related to the proposed relocation of the Maryland Patient Safety Center (MPSC).

The schedule was prepared by MPSC staff and the MPSC internal accounting staff and reviewed by an independent auditing firm.

Based on the significant expense, it is the recommendation of the MPSC management not to go forward with the relocation. This recommendation along with supporting documentation was presented to the MPSC Board and Executive Committee with both bodies concurring with management's recommendation.

The schedule and cover letter is also being sent to the Executive Director, Patrick Redmon and the Commission Chair, John Colmers.

Should you have any question or require clarification, please do not hesitate to contact me via telephone at 410.540.5076 or via email at [rimoff@marylandpatientsafety.org](mailto:rimoff@marylandpatientsafety.org).

Sincerely,

A handwritten signature in blue ink, appearing to read "R. Imhoff III", is written over a blue circular scribble.

Robert H. Imhoff III  
President & CEO

6820 Deerpath Road  
Elkridge, MD 21075



410.540.9210 (Phone)  
410.540.9139 (Fax)

November 9, 2012

Per the request of the Health Services Cost Review Commission contained in the final recommendations from the meeting of May 2, 2012, a feasibility study was conducted by the staff of the Maryland Patient Safety Center (Center) regarding the proposed relocation of the Center's offices from the current location within the Maryland Hospital Association campus. The results of that study are contained in the attached schedule of expenses.

The Center enlisted the assistance of Mr. Richie Blue of Blue & Obrecht (a commercial real estate firm), Nicole Szarko, C.P.A. of McLean, Koehler, Sparks & Hammond (independent auditors) and the Center's internal accounting staff.

The rent costs reflected in the proceeding expense chart represent an average, combined rental rate of class A, B and C properties within the Columbia / Elkridge, MD area. The Center's internal accounting staff compiled a schedule of ongoing operating costs that would be impacted by said relocation. In addition, a "best estimate" of one-time costs (i.e. moving, furniture purchase) was developed through use of historical data and researching current market costs. The data figures (and corresponding assumptions) developed by the Center staff and internal accounting staff were then sent for review and approval by the Center's independent auditors.

The figures presented in the following schedule have been deemed reasonable after having gone through the review and approval process conducted by the independent auditing firm.

6820 Deerpath Road  
Elkridge, MD 21075



410.540.9210 (Phone)  
410.540.9139 (Fax)

## Relocation Expense Chart

	<u>Projected</u>	<u>Current</u>	<u>Variance</u>
<b><u>Recurring Operating Costs</u></b>			
Rent	\$ 44,000	\$ 23,300	\$ (20,700)
Accounting/HR Admin	55,000	35,000	(20,000)
Insurance	12,000	7,500	(4,500)
Network/Internet/Web hosting	45,000	12,600	(32,400)
Office Supplies/Admin/Payroll	14,000	12,000	(2,000)
Duplication/binding	10,000	-	(10,000)
Utilities	7,500	-	(7,500)
Copier lease	4,500	-	(4,500)
Total Recurring Operating Costs	<u>\$ 192,000</u>	<u>\$ 90,400</u>	<u>\$ (101,600)</u>
<b><u>Single Event Cost</u></b>			
Leasehold Improvements	50,000	-	(50,000)
Telephone equipment	2,500	-	(2,500)
Furniture	35,000	-	(35,000)
Moving	5,000	-	(5,000)
Contingency	15,000	-	(15,000)
Total Single Event Costs	<u>\$ 107,500</u>	<u>\$ -</u>	<u>\$ (107,500)</u>
 Total Recurring and Single Event Costs	 <u><u>\$ 299,500</u></u>	 <u><u>\$ 90,400</u></u>	 <u><u>\$ (209,100)</u></u>

### Note:

- Projected rent expense includes \$22 per sq. ft. @ 2,000 sq. ft. and represents an average/blended rate of class A, B and C properties in the Elkridge/Columbia area.

6820 Deerpath Road  
Elkridge, MD 21075



410.540.9210 (Phone)  
410.540.9139 (Fax)

October 31, 2012

Mr. Steve Ports  
Principal Deputy Director  
Maryland Health Services Cost Review Commission  
4160 Patterson Avenue  
Baltimore, Maryland 21215

Dear Mr. Ports:

Pursuant to the Final Recommendations on Continued Support of the Maryland Patient Safety Center dated May 2, 2102, specifically staff recommendation 3; please find enclosed the report from the Maryland Patient Safety Center.

The report is also being sent to the Commission Chair, John Colmers and the Executive Director, Patrick Redmon.

Should you have any questions or require clarifications, please do not hesitate to contact me via telephone at 410.540.5076 or via email at [rimhoff@marylandpatientsafety.org](mailto:rimhoff@marylandpatientsafety.org).

Sincerely,

A handwritten signature in blue ink, appearing to read "R. Imhoff III", is written over a blue circular stamp or seal.

Robert H. Imhoff III  
President & CEO





Report to the Health Services Cost Review Commission

By the Maryland Patient Safety Center:

**Collaborative Participation and Standardization of Data Collection**

*October 2012*

## **Introduction**

The Maryland Patient Safety Center (the Center) has been engaged in collaboratives and learning networks as a core strategy to achieve positive change and improvement in patient safety in the Maryland healthcare community since 2007, beginning with the Perinatal Collaborative. Since that time, the Perinatal Collaborative has joined forces with the Neonatal Collaborative (established in 2009) to become the Perinatal Neonatal Learning Network in 2011. Additionally, the Center engaged in the SAFE from FALLS Collaborative in 2008 and the Hand Hygiene Collaborative in 2010.

## **Maryland Patient Safety Center Collaboratives and Learning Networks Structural Similarities**

While the topics of the collaboratives and learning networks differ, there are some structural similarities that support the standardization of the data collection and management issues across the collaboratives. It is important to note that all collaboratives and learning networks sponsored by the Center are voluntary in nature and use self-reported data by participants. First and foremost, all three collaboratives are managed by our contractor Delmarva Foundation, the CMS-designated quality improvement organization (QIO) for Maryland who oversees data management for each of the collaboratives. While the Maryland Patient Safety Center is the lead organization for all collaboratives and learning networks, the Center's staff works closely with Delmarva to manage the operations for each of these important initiatives, which includes management and oversight of critical functions such as definition of project requirements, strategic direction, data management (including analysis and reporting) and education. Second, each collaborative includes resource materials that define the scope of the work associated with the collaborative, metric definitions, data collection requirements, reporting forms and software. In addition, collaboratives have defined communication and education strategies, which typically include monthly data submission, quarterly calls/webinars, routine contact with team leads providing technical assistance (focused on barriers and interventions), site visits, list serves, web portals and at least one face-to-face meeting or reunion a year for each collaborative. All of these communication/education strategies reinforce standardization and provide an opportunity for feedback with participants about specifications met or not met within the collaboratives/learning networks. Many of the resources described, are available and accessible on the Maryland Patient Safety Center website.

Collaborative/Learning Network	Start Date	Structural Characteristics						Notes
		Roadmap/Toolkit	Monthly Outcomes Data	Process Measures	Quarterly Conference Calls & Webinars	Technical Assistance	Face-to-Face Meetings	
Perinatal Neonatal Learning Network	2007	√	√	√	√	√	√	<ul style="list-style-type: none"> <li>• 2 Reunions per year</li> </ul>
SAFE from FALLS Collaborative	2008	√	√	√	√	√	√	<ul style="list-style-type: none"> <li>• 1 Falls Congress</li> <li>• Quarterly newsletter</li> </ul>
Hand Hygiene Collaborative	2010	√	√	√	√	√	√	<ul style="list-style-type: none"> <li>• 1 Face-to-Face Meeting</li> </ul>

More specifically, there are unique attributes and processes in each individual collaborative that contribute to the quality and uniformity of the data collected and reported.

**The Perinatal-Neonatal Learning Network – Participation and Data Standardization**

The Perinatal-Neonatal Learning Network has the involvement of 29 hospital perinatal teams and 24 neonatal teams. The Center is engaged in an effort to recruit all hospitals providing obstetric care in Maryland. During the first quarter of FY13, the program Co-chairs, Ann Burke, MD and James Rost, MD, and the Center are engaged in a process to achieve 100 percent participation of Maryland hospitals. This will be accomplished through letters of invitation, conference calls, and site visits to the four hospitals currently not participating in the program.

Also in FY13, the Learning Network has expanded its focus to: *standardization of the discharge process for mothers and infants including the late pre-term infant*. The initiative collects data on two process measures and one outcome measure:

1. (Process) The percentage of maternal and neonatal discharges where review of the clinical record of the mother and the baby reflect that a risk assessment was completed. Hospitals will review a random sample of records for each population and audit the records to assess whether risk factors were identified.
2. (Process) The percentage of records where risk was demonstrated AND there is a referral to a community provider or health department.
3. (Outcome) The percentage of patients who were determined to have risk factors, for whom referral was completed AND who kept the scheduled appointment. In order to maintain patient confidentiality, this will be assessed by hospital staff that will make follow-up calls to the patient.

Hospitals have received training on collection of discharge data use of standardized audit tools for mother and baby, randomization of charts, data entry into specialized spreadsheets for mother and baby, and submission of data into the Perinatal-Neonatal portal. All information published at the project level is aggregated. The data collection methodology incorporates collection of maternal race (by US 2010 Census category) and maternal zip code. This permits examination of results broken out by disparities in race, and other demographic factors (income, educational level, etc.) captured in data describing the population in Maryland linked to the home zip code.

The Learning Network continues a focus and collects data on inductions and C-sections less than 39 weeks. To ensure uniformity, and reduce variation in the data captured, the Learning Network establishes values, in this case 26 hospitals in the “N” each reporting period. The first face-to-face meeting (reunion) for FY13 will be held in December 2012 and there will be time built into the agenda for the teams to interact with each other sharing ideas and operational details about how they are testing and implementing the requirements at their institutions. “Roundtable” sharing has been one of the most valued parts of the face-to-face sessions.

**SAFE from FALLS Collaborative – Participation and Data Standardization**

The SAFE from FALLS Collaborative has expanded in FY13 with 34 hospitals (3 hospitals were added); 45 nursing homes (19 nursing homes were added) and 16 home care organizations (7 facilities were added). The Center is engaged in an effort to recruit all 46 hospitals in Maryland to participate in the Collaborative. Consistent and frequent communications to stakeholders and providers is essential to recruitment. On behalf of MPSC, Delmarva has initiated coordinated communications and outreach efforts for the SAFE from FALLS program. In FY13, MPSC is working

with our partners and stakeholder groups at MHA, LifeSpan, HFAM and the Maryland QIO to assist program staff in achieving 100 percent participation for Maryland hospitals and 50 percent of the Maryland Long Term Care (LTC) providers. As there are more LTC facilities than our initial goal, we will continue to have “open enrollment” for LTC providers at a less intensive effort throughout the project year.

The foundation of the Collaborative is the SAFE from FALLS Roadmap and Toolkit which provides key definitions, infrastructure and specific actions for a comprehensive falls management program. The Roadmap and Toolkit were created by the Minnesota Hospital Association and have a proven track record of reducing falls among their member hospitals. The SAFE from FALLS Collaborative has also established a falls safety points incentive program aimed at increasing the number of facilities who enter data on a regular basis and to ultimately enhance the accuracy of the aggregate statewide reporting process.

<b>SAFE from FALLS FY12 # of reporting facilities</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>AVG</b>
<b>Acute Care (hospitals)</b>	30	23	26	29	27
<b>Long Term Care</b>	14	14	15	14	14
<b>Home Care</b>	5	6	7	6	6

#### **The Maryland Hospital Hand Hygiene Collaborative – Participation and Data Standardization**

The Maryland Hospital Hand Hygiene Collaborative expanded participation significantly in FY12 and now in FY13 there are 44 of 45 (97%) acute care hospitals engaged in the Collaborative. There is also one specialty hospital involved in the collaborative. Unlike the Perinatal Neonatal Learning Network and the SAFE from FALLS Collaborative, who have facilities reporting into a portal with software programming specifically created for the Maryland Patient Safety Center, the Hand Hygiene Collaborative uses the HandStats software program developed by Johns Hopkins. In October 2011, the Center signed a MOU with Johns Hopkins Health System to transition the data analysis from Hopkins to the Delmarva Foundation.

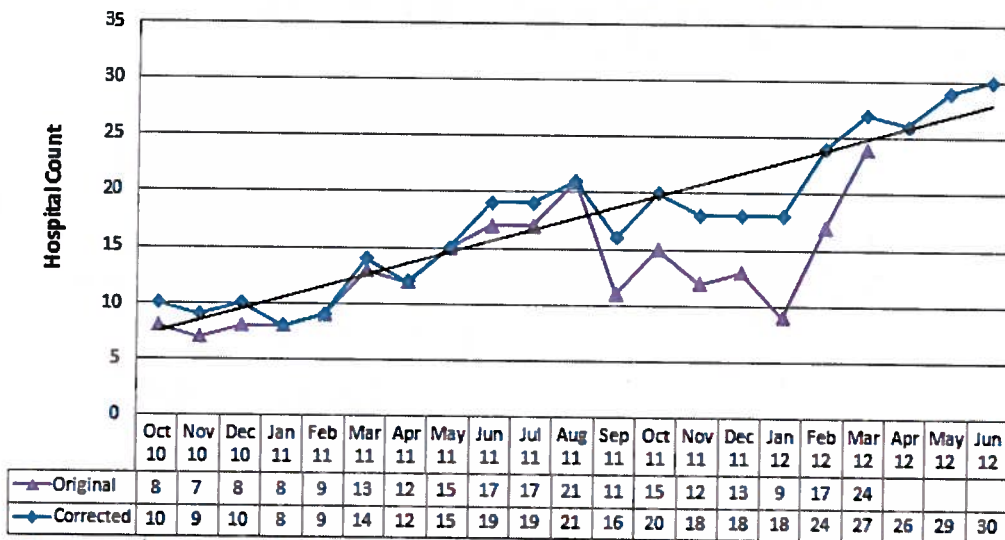
Initially, the Delmarva Foundation cleaned up the data in HandStats by verifying the data for required units and ensured consistency in reporting of the same required units each month. We found that this was not historically done within HandStats and that some hospitals had inconsistently reported data on required units and that the number of required units had changed over time. Delmarva verified the required units with each participating hospital and put a process in place to ensure that reporting was consistent from month to month for each hospital. This issue impacted the ability of some hospitals to meet the requirements of the project, specifically the 80/30 rule (80 percent of all required units must have 30 or more observations). Also, one of the more significant limitations of HandStats, was the fact that there was no “hard stop” on the system; therefore there was no way to lock users out of data entry after the deadline for data submission. Therefore, when discrepancies were reported by hospitals, there was no way to identify when data was entered into HandStats. These issues were addressed individually with hospitals and also on quarterly conference calls and webinars.

In February 2012, the Center provided hospitals with report cards that profiled their compliance with the 80/30 rule and their organization’s performance compared to the statewide aggregate. With the initial distribution of report cards, and on an ongoing basis (monthly), we have asked hospitals to verify critical information such as the number of required units, required units with 30 or more observations, and their

hospital hand hygiene compliance rate. Reports of inconsistencies and discrepancies by hospitals were handled with technical assistance calls. Several hospitals raised some data discrepancies that could not be explained and as a result, several site visits were conducted in consultation with technical staff from Hopkins. At that time, the Maryland Patient Safety Center did not have access to the HandStats software to perform data verification. As a result, MPSC requested access to HandStats, and it was provided in April 2012. Similar access was granted to Delmarva in June 2012. Through the site visits, it was determined that HandStats was not counting observations entered on the last day of the month – defined as a “bracketing” issue by the analyst at Hopkins. Hopkins personnel adjusted the logic to the software on April 17, 2012, which would take care of observations going forward but required reprocessing of past data. The Delmarva Foundation adjusted data back to October 2010, which resulted in changes to the number of hospitals meeting the 80/30 rule – see table below. Corrected data reflects a steady increase of hospitals achieving the 80/30 rule over time – from a low of 8 hospitals in the “N” to a high of 30.

Overall, the fluctuations in the number of hospitals meeting the 80/30 rule can be attributed to the technical difficulties and limitation of the HandStats platform and the barriers associated with having limited access to the software program, which prevented understanding and detection of key issues on the part of hospitals. Ultimately, when appropriate access to the HandStats software was provided to the Center and then Delmarva, we became more informed and were able to troubleshoot and work more closely with our hospitals to achieve the performance requirements with the Collaborative.

**Original vs. Corrected  
Number of Hospitals Meeting the 80/30 Rule**



\*new\* hospitals represented 1, 1 and 4 respectively for April, May and June

The original 30 hospitals that have been participating in the Collaborative have been improving with an increasing number achieving the 80/30 rule, a direct result of several coaching calls and some one-on-one technical assistance. In March 2012, we began our focus on the additional 14 hospitals coming into the Collaborative and hosted an on-boarding call to gear them up for participation. Our goal was to bring hospitals into the Collaborative over the next few months, allowing them to become familiar with the specifications and requirements during that time and for them to be fully participating (achieving the 80/30 rule) with the submission of July 2012 data (the start of FY13). During the call we reviewed the specifications, provided guidance on the 80/30 rule, reviewed deadlines for data submission and

suggestions for entry of observations. Most importantly, we encouraged new hospitals to enter data routinely, and suggested a weekly data entry process, that would allow them to track and manage their observations more consistently. The second group of hospitals joining the Collaborative, had clearly benefitted from the lessons learned from the original hospitals participating in the Collaborative.

Delmarva is also checking the data in HandStats on a weekly basis to see if hospitals are entering more routine observations rather than waiting to the end of the month. If there is evidence that hospitals are not entering data on a regular basis, Delmarva will contact them to discuss their situation and advise them about recommended practices. This appears to be working as we have seen progress with these new hospitals over the past several months in their compliance (see chart below). The Maryland Hospital Association, a partner in this initiative, can also be credited with assistance with CEO engagement, by sending CEO's monthly participation summaries that were the focus of discussions between hospital leadership and infection prevention staff.

Month/Year	New Hospital Participants (14)					
	Met	%	Not Met	%	NDS*	%
7/2012	6	43%	6	43%	2	14%
8/2012	10	71%	4	29%	0	0
9/2012	12	86%	2	14%	0	0

Met – hospitals meeting 80/30 rule    Not Met – hospitals not meeting the 80/30 rule    NDS – No Data Submitted

Overall in calendar year 2011, we had approximately 16 hospitals on average meeting the 80/30 rule each month with a range from 8 - 18 hospitals meeting 80/30 each month. In calendar year 2012 (January – June), we have approximately 26 hospitals on average meeting the 80/30 rule with a range 18 - 30 hospitals meeting 80/30 each month. Weekly conference calls are held with staff from MPSC, Delmarva and MHA to discuss issues and track performance within the Collaborative and have been effective in determining which hospitals might need technical assistance and/or interventions.

Finally, the Center is in the final stages of developing a software application for Hand Hygiene that will replace HandStats. Not only are some of the issues that have been cited earlier a driver to developing our own software platform, but there are several others that have been raised by staff working with the Collaborative and requests from participating hospitals. Hospitals currently have limited capabilities to run historical data for their hospital; and hospitals must enter data manually (many hospital have limited or no administrative support staff within their Infection Prevention Departments to enter data) and do not have the ability to upload a flat file. Staff would like greater capabilities to manage data submitted; have the software manage some of the edits for consistency; and we feel that down the road, more in-depth analysis will be required to get us to the Collaborative's goal of 90 percent compliance. Before we move all hospitals to the new platform, we have planned a pilot test for the new software. We have selected five hospitals to test the software over the next several months, while maintaining hospitals entry into HandStats. This will allow us to test and make modifications, as needed, with a goal to "go live" with all hospitals in January 2013.

The data being reported for all Maryland Patient Safety Center collaboratives is collected voluntarily and is self reported. The Center has incorporated structural characteristics into each collaborative, in order to ensure a satisfactory level of consistency and standardization. Those actions include: project guidelines,

training, education, conference calls, webinars, site visits and regular meetings with our data management vendor (Delmarva Foundation).

**Summary**

While we feel that a solid footing has been established with regard to data standardization, we also recognize the need to improve and advance rather than to simply maintain the status quo for all Collaboratives. In that regard, we have created a more structured approach in order to ensure that all participants are following prescribed guidelines to include: data collection/reporting compliance and proper application of methodologies. MPSC will be incorporating pro-active site visits with our participating facilities and will create an audit tool for more robust assessment of organizational compliance via staff interviews, review of documents and observation. By improving the level of data standardization we will have an even higher degree of confidence in the reported data and in turn, a stronger vehicle for action and ongoing education.

# Maryland Patient Safety Center FY 2014 Program Plan & Budget

Presented to the Health Services Cost  
Review Commission

March 2013



# Maryland Patient Safety Center Board of Directors

## Appendix II

- **Susan Glover**, Chair, SVP, Chief Quality Officer  
Adventist HealthCare
- **Stanton G. Ades**, SVP  
Professional Pharmacies Omnicare, Inc.
- **John Astle**, Senator, District 30 (D)  
Maryland State Senate
- **Mike Avotins**, SVP, Large Group Operations  
CareFirst, BlueCross, BlueShield
- **Carmela Coyle**, President & CEO  
Maryland Hospital Association
- **Joseph DeMattos, Jr.**, MA, President  
Health Facilities Association of Maryland
- **Eugene Friedman**, Corporate Counsel  
1<sup>st</sup> Mariner Bank
- **Chris Goeschel**, ScD, MPA, MPS, RN  
The Armstrong Institute for Patient Safety & Quality
- **Nancy Beth Grimm**, RN, JD
- **William Holman**, President & CEO  
Charles County Nursing & Rehabilitation Center
- **David Horrocks**, President  
CRISP
- **Robert Imhoff**, President & CEO  
Maryland Patient Safety Center
- **Heather R. Mizeur**, Delegate, District 20 (D)  
Maryland House of Delegates
- **Sherry Perkins**, PhD, RN, COO and CNO  
Anne Arundel Medical Center
- **Steve Ports**, Principal Deputy Director  
Health Services Cost Review Commission
- **Samuel Ross**, MD, CEO  
Bon Secours Baltimore Health
- **James R. Rost**, MD, Medical Director, NICU and  
Medical Director of Patient Safety  
Shady Grove Adventist Hospital
- **Steve Schenkel**, MD, Chair, Department of  
Emergency Medicine, Mercy Medical Center and  
Assistant Professor, Emergency Medicine, University  
of Maryland School of Medicine
- **Fredia S. Wadley**, MD, President & CEO  
Quality Health Strategies
- **Kathleen White**, PhD, RN, NEA-BC, FAAN, Associate  
Professor, Department of Acute and Chronic Care,  
The Johns Hopkins University School of Nursing

# FY 2013 Highlights

## Appendix II

- Developed and launched new data collection platform for Hand Hygiene Initiative
- Increased Hand Hygiene participation rate to 95%
- Began process for improvement of data collection standards and integrity
- Expanded outreach to other providers i.e., long term care, ambulatory surgical centers, primary care
- Established partnership with OHCQ to identify and address emerging patient safety issues
- Increased revenues from Annual Conference through registration fees and sponsorships

# FY 2013 Initiatives Results

## Appendix II

- **Hand Hygiene:**
  - Participation Rate of 95% (42 of 44 hospitals)
  - Overall compliance rate of 88% (January 2013)
- **Safe From Falls:**
  - 92 participants (33 hospitals, 44 LTC, 15 home health)
  - Acute care rate of falls per 1000 patient days flat at approximately three (3). (9/09 – 12/12)
  - Acute care rate of falls with injury (per 1000 patient days) trending downward from 26 (9/09) to < 20 (12/12)
  - LTC rate increasing from just above four (4) (9/09) to six (6) (12/12); rate with injury trending downward from approx. 22 to less than 20 (9/09 – 12/12)
  - Home Health rate flat at approx. 41 with similar results for rate with injury.

# FY 2103 Initiatives Results (cont.)

## Appendix II

- Perinatal / Neonatal:
  - 30 participants
  - Induction rate >39 weeks w/o medical indication trending downward from .7% to .3% for the period from 10/10 – 10/12
  - C Section rate >39 weeks w/o medical indication trending downward from 2.4% to .09% from 10/10 – 10/12

# Strategic Partners

## Appendix II

- **Courtemanche & Associates** - An interdisciplinary healthcare firm that serves healthcare organizations to improve care through compliance with regulatory and accreditation requirements.
- **ECRI Institute** – A PSO and national vendor of adverse event reporting services.
- **Health Facilities Association of Maryland** - A leader and advocate for Maryland’s long-term care provider community.
- **Institute for Patient -and Family- Centered Care** – A non-profit organization founded in 1992, which provides essential leadership to advance the understanding and practice of patient- and family-centered care.
- **Institute for Safe Medication Practices** – The leading national organization educating others about safe medication practices.
- **Maryland Healthcare Education Institute** – The educational affiliate of the Maryland Hospital Association.
- **Maryland Hospital Association** - The advocate for Maryland's hospitals, health systems, communities, and patients before legislative and regulatory bodies.
- **LifeSpan Network** - The largest senior care provider association in the Mid-Atlantic, representing more than 300 senior care provider organizations in Maryland and the District of Columbia.
- **The Ambulatory Surgery Center Association** - The national membership association that represents ambulatory surgery centers (ASCs) and provides advocacy and resources to assist ASCs in delivering high quality, cost-effective ambulatory surgery to the patients they serve.
- **Johns Hopkins School of Medicine / The Armstrong Institute for Patient Safety and Quality** – The patient safety center within Johns Hopkins Medicine.



# FY14 Initiatives: Education Programs

## Appendix II

- Educational programming according to needs of members & marketplace.
- Objectives:
  - Educate providers regarding pertinent patient safety/medication related issues
  - Expand geographic and participant reach of the Center
  - Increase participation levels
  - Increase revenue generation
  - Establish Center as recognized educational resource
- Vendor – Maryland Healthcare Education Institute

# FY14 Initiatives: Conferences

## Appendix II

- The Annual Patient Safety Conference provides awareness, education and the exchange of best practice solutions. The annual MedSafe Conference concentrates on the prevention of medication errors with an emphasis on processes and technology.
- Objectives:
  - Educate providers regarding pertinent patient safety / medication related issues
  - Expand geographic and participant reach of the Center
  - Increase participation levels
  - Increase revenue generation
  - Establish Center as recognized educational resource
- Vendor: Maryland Healthcare Education Institute

# FY14 Initiatives: Patient Safety Certification

## Appendix II

- The certification will utilize both traditional classroom instruction and practical application methodology; using the Patient Safety Officer (PSO) as the focal point. The certification would extend to both individuals and institutions.
- Objectives:
  - Ensure competency level of PSO
  - Identify and solve actual patient safety issues
  - Engrain “culture of patient safety”
  - Establish patient safety as an institutional focus
  - Develop teamwork approach to solving patient safety issues
  - Empower participating staff to be patient safety leaders
  - Provide real and measurable impact
- Vendor: Courtemanche & Associates



# FY14 Initiatives: Patient/Family Centered Care Integration

## Appendix II

- The Maryland Patient Safety Center recognizes that patient/family involvement is an integral part of patient safety and proposes to incorporate this concept into current and new programs.
- Objectives:
  - Integrate patient/family centered concepts into applicable Center programming
  - Identify patient/family participation opportunities
  - Establish patient/family involvement as a Center program priority
  - Develop teamwork approach between patients/families and providers
  - Establish outcome metrics
- Vendor: Institute for Patient – and Family- Centered Care

# FY14 Initiatives: Caring for the Healthcare Worker

## Appendix II

- The purpose of this initiative is to recognize those factors and their impact that affect a healthcare worker's ability to safely carry out their duties while offering solutions and actions that will significantly decrease their influence on patient safety.
- Objectives:
  - Reduce the number of harmful patient safety incidents
  - Increase patient satisfaction scores
  - Improve worker satisfaction
  - Increase worker retention rates
- Vendor: Johns Hopkins University School of Medicine / Armstrong Institute for Patient Safety and Quality

# FY14 Initiatives: Safety Initiatives

## Appendix II

- Falls Reduction & Prevention of Harm
  - Support a coordinated communication and improvement campaign through the “SAFE from FALLS” program.
- Hand Hygiene Improvement
  - Reduce hospital acquired infections through better hand hygiene compliance.
- Perinatal/Neonatal Learning Network
  - Apply newly developed risk assessment tool for mother and babies to determine discharge referral needs; decreasing readmissions and improve health outcomes for mother and infant

Maryland Patient Safety Center with consultative support from  
Maryland Hospital Association



# Strategic Direction

## Appendix II

- Development
- Expansion
- Looking toward the future
- Having greater overall impact on patient safety
- Increased oversight with creation of the Center Operations Steering Committee
- Improved coordination with statewide healthcare priorities:
  - HSCRC
  - OHCQ
  - Governor's Health Quality & Cost Council

# FY 2014 Budget

## Appendix II

<b>REVENUE</b>	<b>FY 2014 Budget</b>	<b>FY 2013 Budget</b>
Cash Contributions from MHA/Delmarva	200,000	400,000
Cash Contributions from Hospitals	300,000	300,000
HSCRC Funding	1,200,000	1,225,637
Education Session Revenue	150,000	203,600
Long-term care Revenue	50,000	100,000
Conference Registrations	240,000	140,000
Sponsorships	75,000	29,400
Grants/Contributions	180,000	250,000
<b>Total Revenue</b>	<b>2,375,000</b>	<b>2,648,637</b>

<b>EXPENSES</b>	<b>FY 2014 MPSC</b>	<b>FY 2014 Consultants</b>	<b>FY 2014 Total</b>	<b>FY 2013 Budget</b>
Administration	562,450		562,450	1,030,561
Outpatient Dialysis (previously committed)	75,000		75,000	75,000
<b>Programs</b>				
Education Sessions		189,000	189,000	298,000
Annual Patient Safety Conference		427,650	427,650	295,000
MEDSAFE Conference		52,850	52,850	38,500
Caring for HC	65,300	88,550	153,850	
Patient/Family Centered Care	59,400	16,150	75,550	
Safety Initiatives	215,550	165,000	380,550	986,577
Certification	129,600	327,200	456,800	
<b>Total Expenses</b>	<b>1,107,300</b>	<b>1,266,400</b>	<b>2,373,700</b>	<b>2,723,637</b>

Net Income (Loss)

14

**1,300**

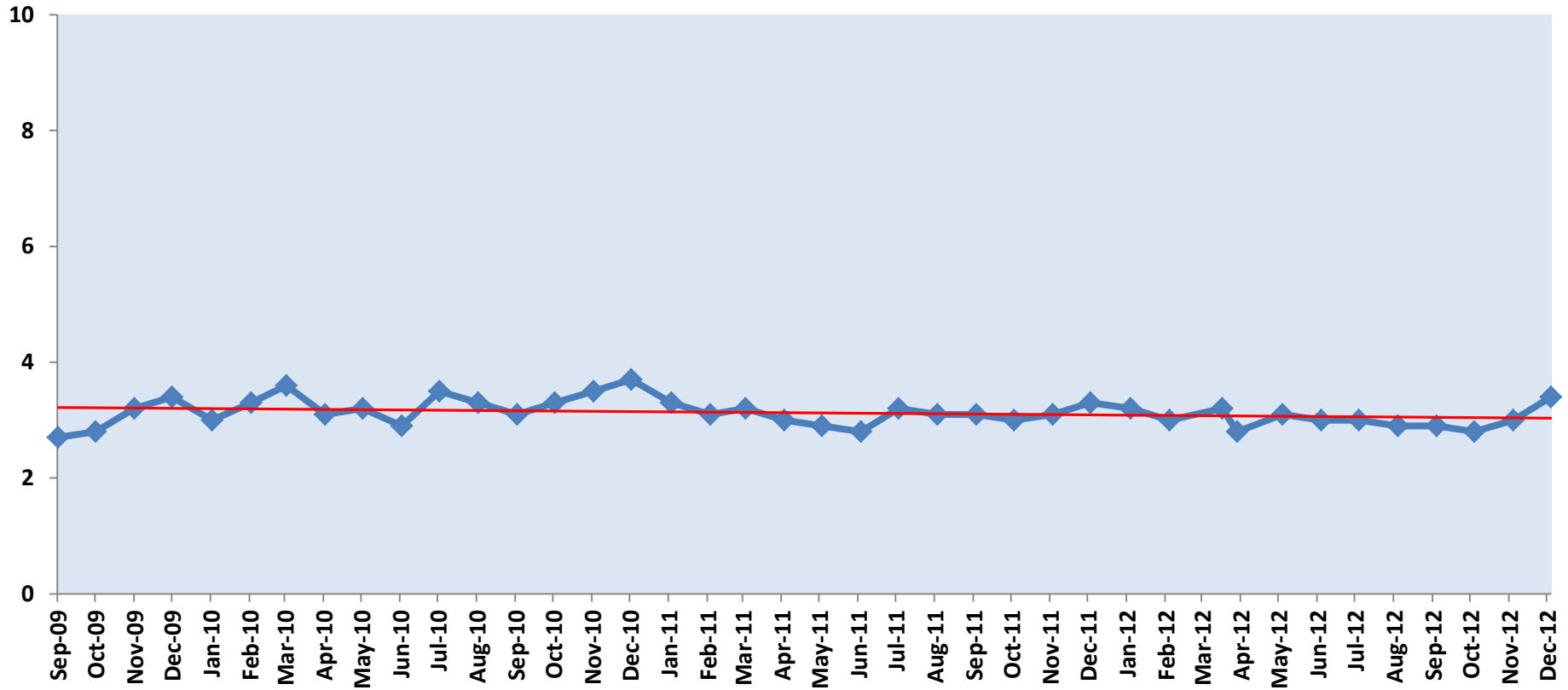
**(75,000)**



# SAFE from FALLS – Acute Care

Appendix III

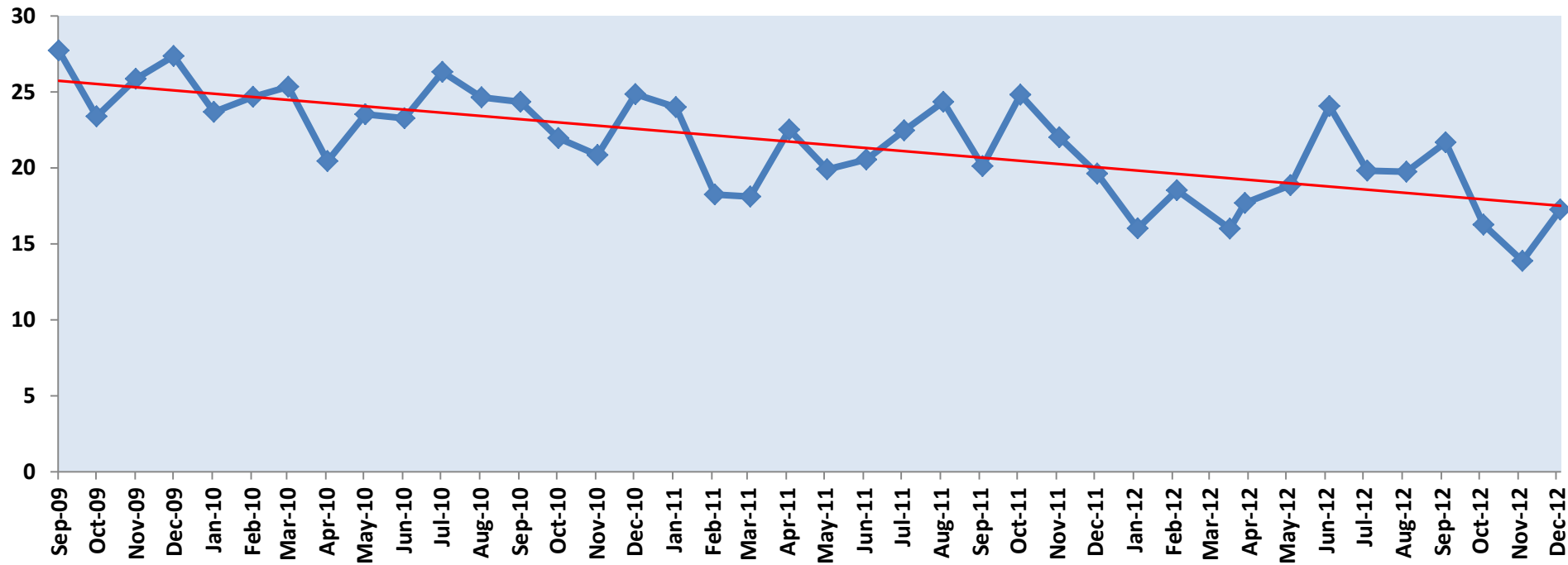
## Acute Care Rate of Falls per 1,000 Patient Days



# SAFE from FALLS – Acute Care

Appendix III

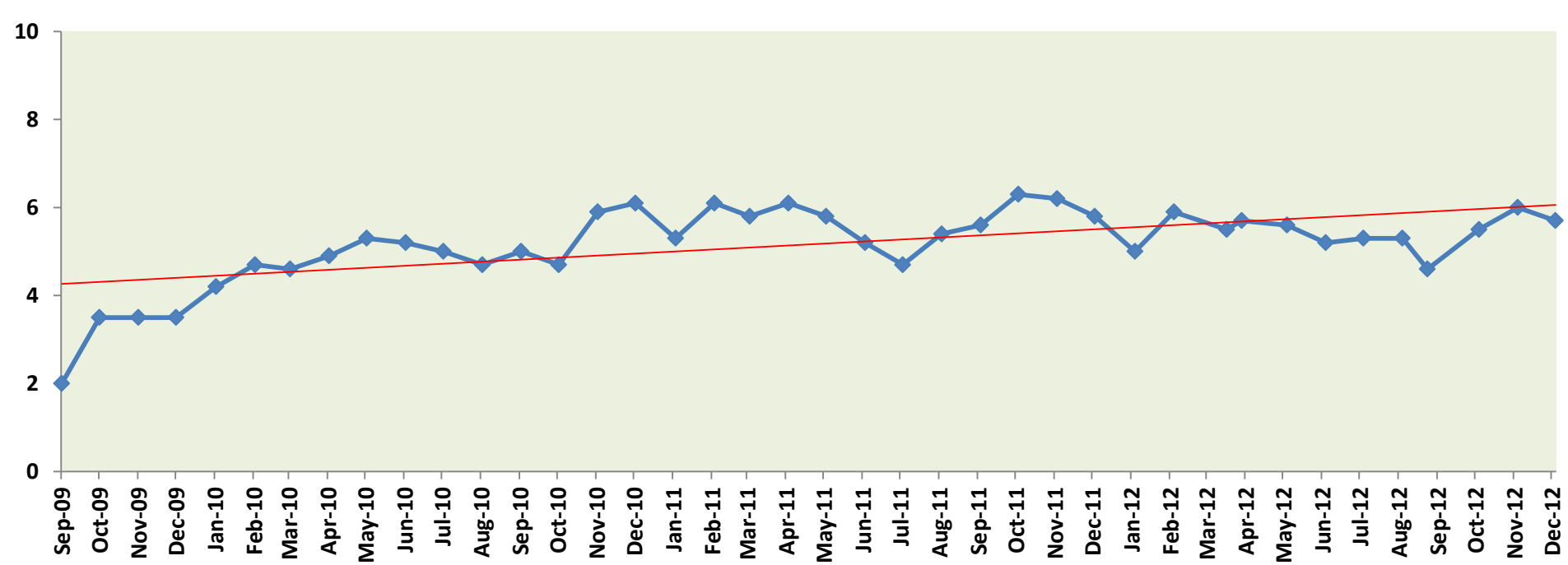
## Acute Care Percentage of Falls with Injury



# SAFE from FALLS – Long-Term Care

Appendix III

## Long Term Care Rate of Falls per 100 Bed Days

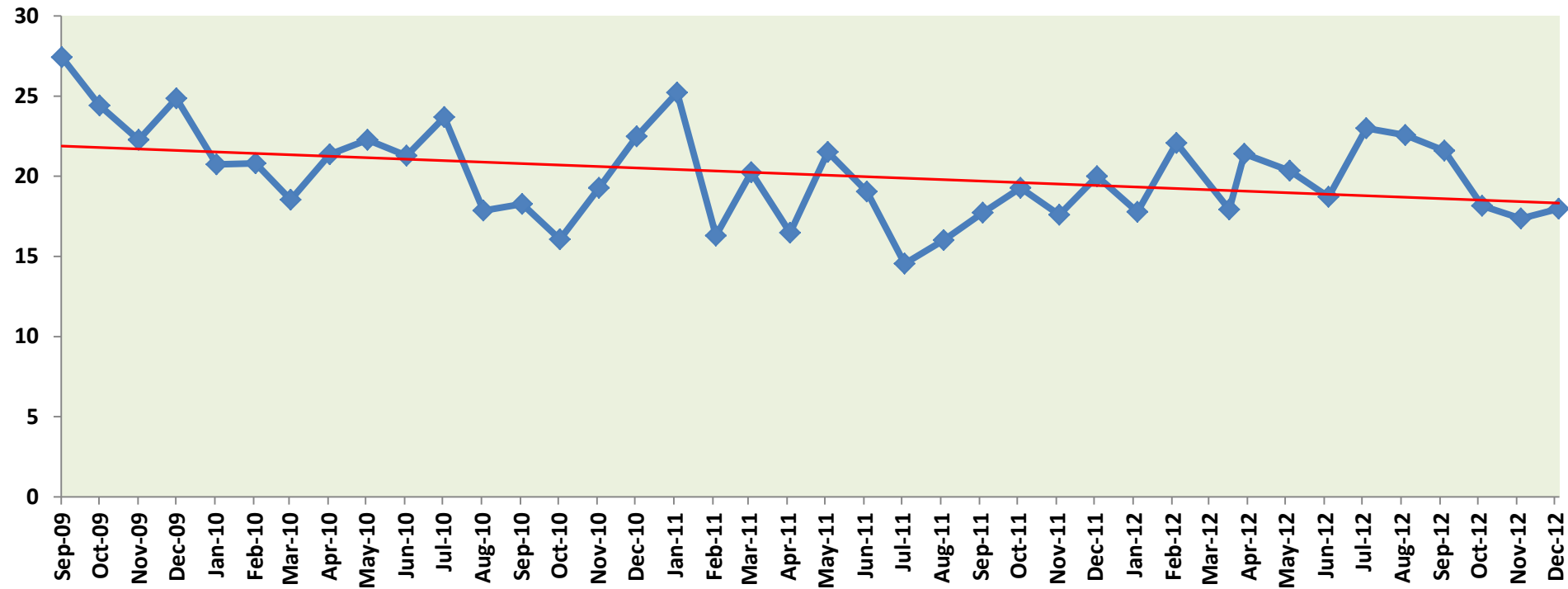




# SAFE from FALLS – Long-Term Care

Appendix III

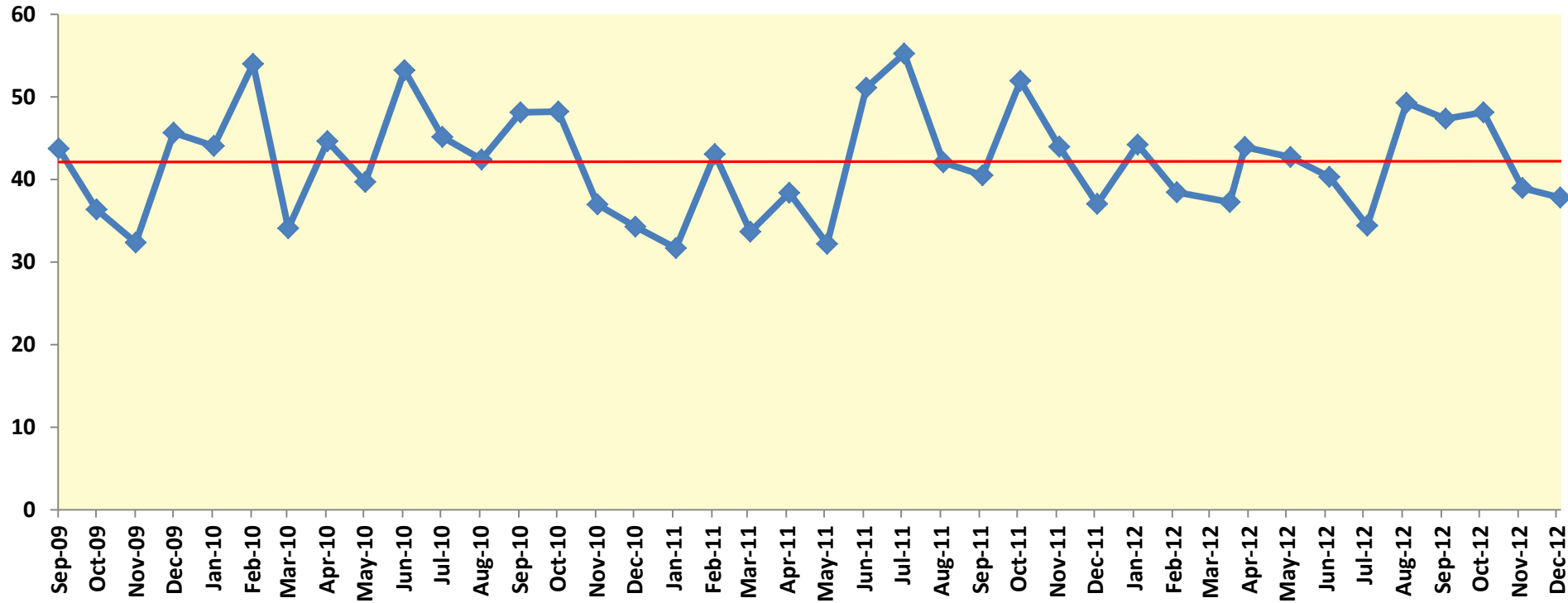
## Long Term Care Percentage of Falls With Injury



# SAFE from FALLS – Home Health

Appendix III

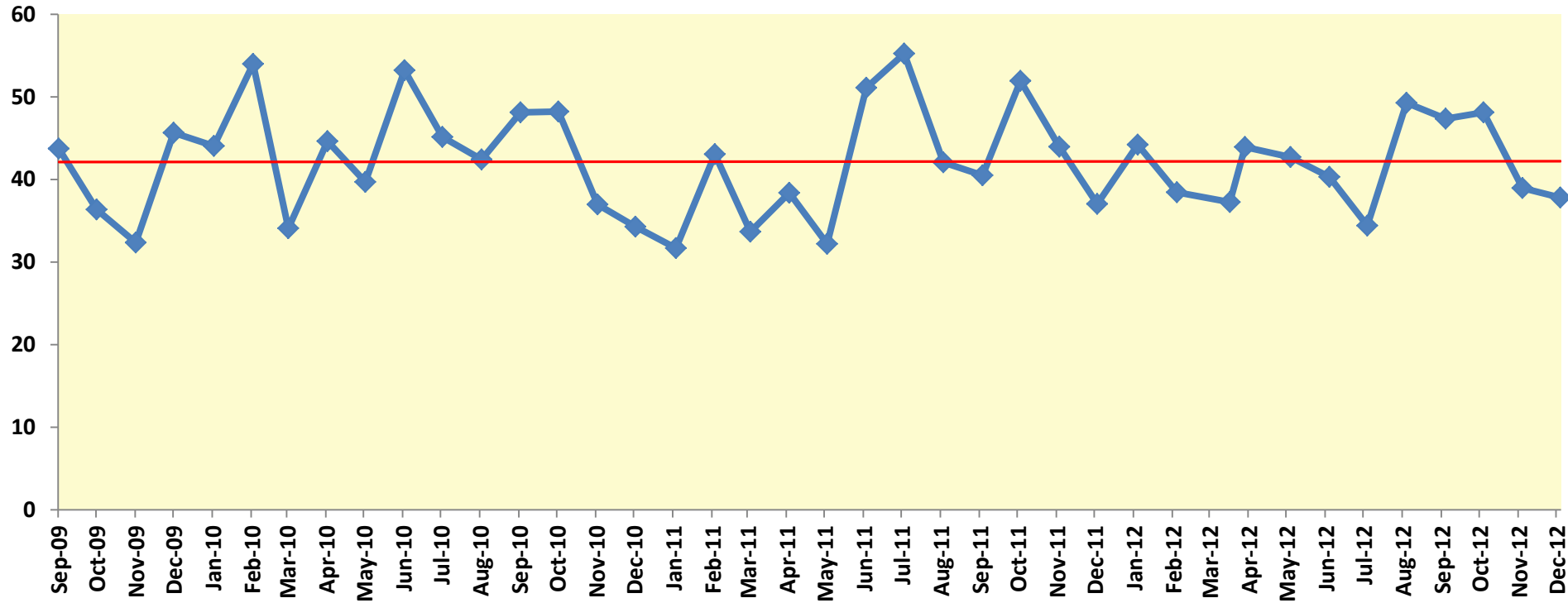
## Home Health Percentage of Falls With Injury



# SAFE from FALLS – Home Health

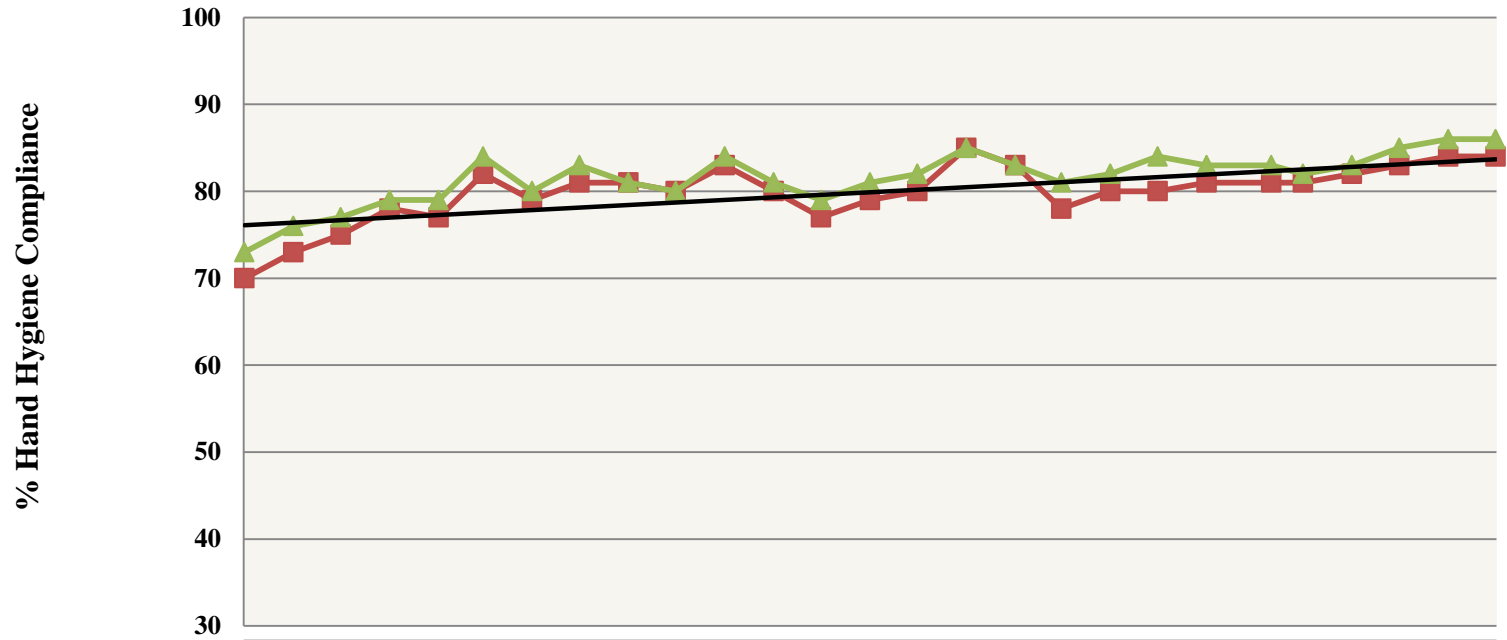
Appendix III

## Home Health Percentage of Falls With Injury



# Hand Hygiene

## Appendix III

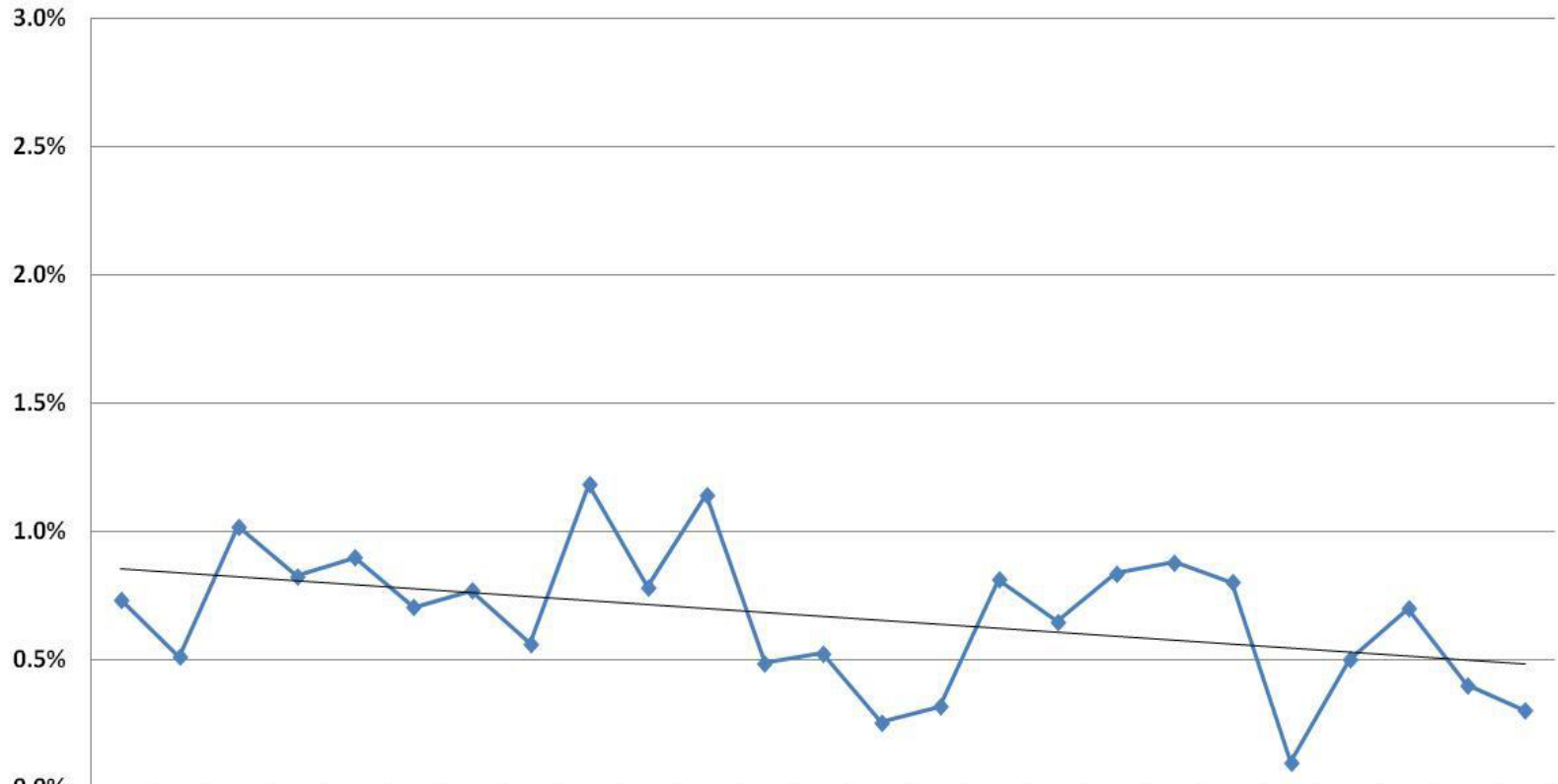


	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12
Exit & Entry Compliance rate	70	73	75	78	77	82	79	81	81	80	83	80	77	79	80	85	83	78	80	80	81	81	81	82	83	84	84
Exit Only Compliance Rate	73	76	77	79	79	84	80	83	81	80	84	81	79	81	82	85	83	81	82	84	83	83	82	83	85	86	86

# Perinatal/Neonatal Learning Network

## Appendix III

Maryland Patient Safety Center - Perinatal Collaborative  
Induction Rate Less than 39 Weeks without Medical Indication



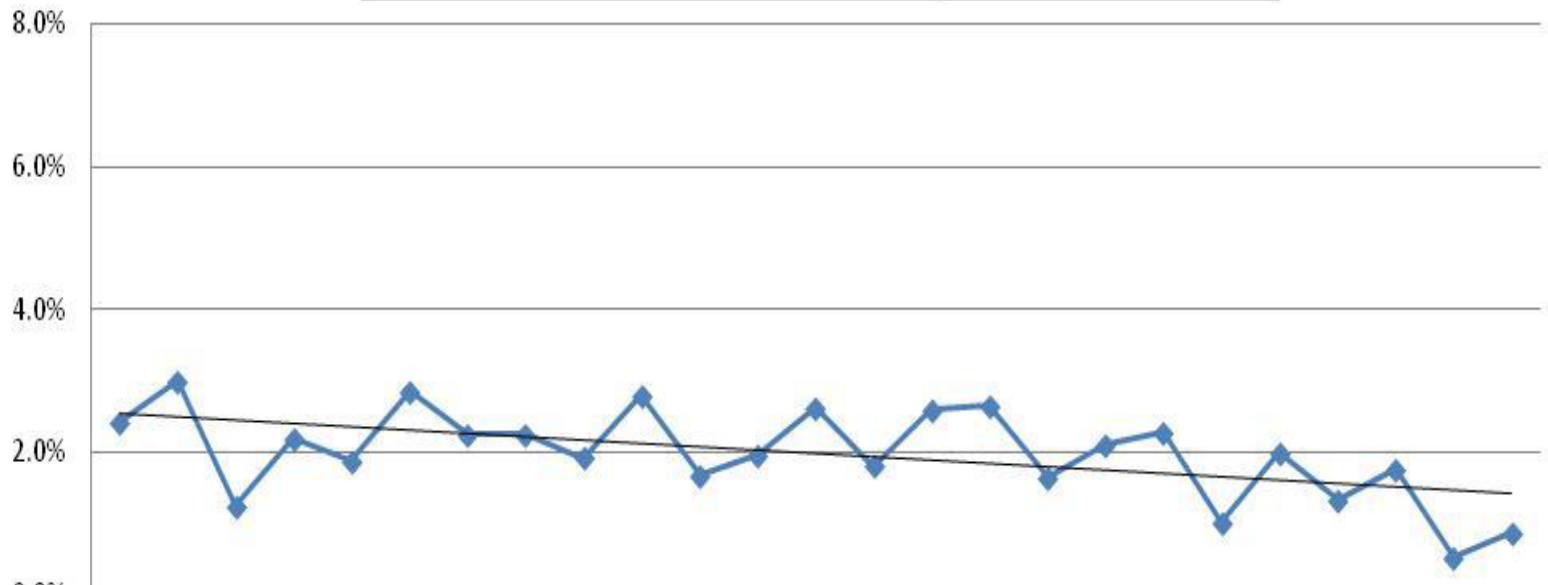
	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	July-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12
◆ %G/C	0.7%	0.5%	1.0%	0.8%	0.9%	0.7%	0.8%	0.6%	1.2%	0.8%	1.1%	0.5%	0.5%	0.3%	0.3%	0.8%	0.6%	0.8%	0.9%	0.8%	0.1%	0.5%	0.7%	0.4%	0.3%
■ # Facilities	29	29	27	29	29	29	27	29	28	29	29	29	28	28	29	26	26	28	27	26	26	26	26	26	26



# Perinatal/Neonatal Learning Network

## Appendix III

Maryland Patient Safety Center - Perinatal Collaborative  
C-Section Rate Less than 39 Weeks w/o Medical Indication



	Oct 10	Nov 10	Dec 10	Jan 11	Feb 11	Mar 11	Apr 11	May 11	Jun 11	Jul 11	Aug 11	Sept 11	Oct 11	Nov 11	Dec 11	Jan 12	Feb 12	Mar 12	Apr 12	May 12	Jun 12	Jul 12	Aug 12	Sept 12	Oct 12
◆ %G/C	2.4%	3.0%	1.2%	2.2%	1.9%	2.9%	2.3%	2.3%	1.9%	2.8%	1.7%	2.0%	2.6%	1.8%	2.6%	2.7%	1.7%	2.1%	2.3%	1.0%	2.0%	1.3%	1.8%	0.5%	0.9%
— # Facilities	29	28	28	29	29	29	28	29	28	29	29	29	28	28	29	26	26	28	27	26	26	26	26	26	26

Health Services Cost Review Commission

Staff Recommendation on the Chesapeake Regional  
Information System for Our Patients Request to access the  
HSCRC Confidential Patient Level Data

April 10, 2013

This recommendation was adopted with the change shown in section 1.

**Health Services Cost Review Commission**  
**April 10, 2013**

**Recommendation on the Chesapeake Regional Information System for  
Our Patients Request to access the HSCRC Confidential Patient Level Data.**

**1. Summary statement**

This is a request from the Chesapeake Regional Information System for Our Patients (“CRISP”) to access the HSCRC inpatient and outpatient confidential data for CY 2011 and CY 2012 (when available). CRISP is also requesting ongoing access to the confidential inpatient and outpatient data on a quarterly basis.

CRISP is Maryland’s State-Designated Health Information Exchange (HIE) and operates as a 501(c)(3) not-for-profit membership corporation. In this capacity, HSCRC has provided CRISP with confidential data to test and refine a unique patient identifier that will allow the HSCRC to analyze readmission patterns across hospitals.

The objective of this request is to support a broader aim of transitioning to a population health-oriented approach to measuring and improving the performance of hospital and post-acute care delivery systems. The confidential data will enhance the existing CRISP reporting capability to support multiple on-going objectives, including:

- Producing Geographic Information System (GIS) visualizations of specific hospital encounter types enabling community-based care managers to more effectively assign resources for intervention efforts under the CMS CMMI SIM grant;
- Supporting provider organizations in responding to the policy and payment incentives of a redesigned waiver by ensuring they have a timely understanding of community health and hospital service utilization;
- Enhancing the existing readmission reports to hospitals by incorporating clinical service line, insurance, and diagnosis information into the existing report.

In its role as Maryland’s non-profit statewide HIE, CRISP acts as a utility serving the public good. CRISP *shall not* “sell” *standardized* reports that are produced *for all providers* relying on HSCRC data *without further Commission approval*. In some scenarios, an “at-cost” administrative fee may be necessary *for custom requests* to ensure CRISP is able to meet potential demand.

**2. Requests for Access to the Confidential Patient-Level Data.**

All requests for confidential data are reviewed by the Health Services Cost Review Commission Confidential Data Review Committee. The role of the Review Committee is to review applications and make recommendations to the Commission at its monthly public meeting. Applicants requesting access to the confidential data must demonstrate:

- 1) Compliance with Health General Article Section 4-101 et. Seq.;
- 2) Compliance with Health General Article Section 19-207, COMAR 10.37.04, COMAR 10.37.06 and COMAR 10.37.07;



- 3) The data shall only be used for the purposes specified by the Commission;
- 4) The results of data analysis and reports must be submitted to the Commission prior to the public release; and
- 5) Other restrictions may apply as deemed appropriate.

The independent Confidential Data Review Committee comprised of representatives from HSCRC staff, the Department of Health and Mental Hygiene (“DHMH”), and the University of Maryland School of Medicine (“UMSM”) National Study Center for Trauma and EMS (“NSC”) reviews the application to ensure it meets the above minimum requirements as outlined in the application form.

In this case, the Confidential Review Committee reviewed the request via conference call and unanimously agreed to recommend access to the inpatient and outpatient CY 2011-2012 confidential data. As a final step in the evaluation process, the applicant will be required to file annual progress reports to the Commission, detailing any changes in goals or design of project, any changes in data handling procedures, work progress, and unanticipated events related to the confidentiality of the data.

### **3. Staff Recommendation**

For the application listed, staff recommends that the request for access to the HSCRC inpatient and outpatient CY 2011-2012 confidential data files, as well as access to these confidential data on a quarterly basis be approved contingent upon an DHMH Institutional Review Board (IRB) waiver.

Health Services Cost Review Commission

Staff Recommendation on the U.S. Department of Health  
& Human Services Request to access the HSCRC  
Confidential Patient Level Data

April 10, 2013

This final recommendation was adopted by the Commission.

**Health Services Cost Review Commission**  
**April 10, 2013**

**Recommendation on the U.S. Department of Health & Human Services Request to access the HSCRC Confidential Patient Level Data.**

**1. Summary Statement**

This is a request from the U.S. Department of Health & Human Services, Assistant Secretary for Preparedness and Response, Biomedical Advanced Research and Development Authority (“HHS/ASPR/BARDA”) to access the HSCRC inpatient and outpatient confidential data CY 2008 through CY 2012. The objective of the HHS/ASPR/BARDA request is to study the impact of influenza on medical outcomes of Maryland residents from 2001 through 2012 by using the date of admission in the confidential data set. **These data will not be used to identify individual hospitals or patients.**

**2. Requests for Access to the Confidential Patient Level Data**

All requests for Confidential Data are reviewed by the Health Services Cost Review Commission Confidential Data Review Committee. The role of the Review Committee is to review applications and make recommendations to the Commission at its monthly public meeting. Applicants requesting access to the confidential data must demonstrate:

- 1) Compliance with Health General Article Section 4-101 et. Seq.;
- 2) Compliance with Health General Article Section 19-207, COMAR 10.37.04, COMAR 10.37.06 and COMAR 10.37.07;
- 3) The data shall only be used for the purposes specified by the Commission;
- 4) The results of data analysis and reports must be submitted to the Commission prior to the public release; and
- 5) Other restrictions may apply as deemed appropriate.

The independent Confidential Data Review Committee comprised of representatives from HSCRC staff, the Department of Health and Mental Hygiene (“DHMH”) and the University of Maryland School of Medicine (“UMSM”) National Study Center for Trauma and EMS (“NSC”) reviews the application to ensure it meets the above minimum requirements as outlined in the application form.

In this case, the Confidential Review Committee reviewed the request via conference call and unanimously agreed to recommend access to the inpatient and outpatient CY2008-2012 confidential data. As a final step in the evaluation process, the applicant will be required to file annual progress reports to the Commission, detailing any changes in goals or design of project, any changes in data handling procedures, work progress, and unanticipated events related to the confidentiality of the data.

**3. Recommendation**

For the application listed, staff recommends that the request for access to the HSCRC inpatient and outpatient CY 2008-2012 confidential data files be approved.

## Legislative Update – April 10, 2013

### **Senate Bill 127/House Bill 102 – Budget Reconciliation and Financing Act of 2013**

Senate Bill 127/House Bill 102 requires a study/report on expected Medicaid savings from clinic and ED tiering in FY 2014 and requires certain actions to be taken if the expectation is less than \$30 million. Specifically, the bill provides that the Commission's clinic tiering policy combined with the 2014 hospital update factor shall achieve \$30 million in savings in FY 2014. The Commission is required to contract with a consultant to prepare an analysis projecting the savings from tiering and the update factor in FY 2014 and submit a report to the Governor and General Assembly by December 15, 2013. If the report projects savings of less than \$30 million, the Commission is required to take one or a combination of the following actions:

- adjust the Medicaid deficit assessment so that the percentage of net patient revenue it represents equals that percentage in FY 2013;
- reduce the MHIP assessment by an amount sufficient to ensure that the combined Medicaid deficit and MHIP assessments do not exceed \$518 million in FY 2014; and/or
- identify and implement other actions to provide the necessary savings.

An amendment was added to the bill to cap the existing Medicaid deficit assessment at \$389 million beginning in FY 2015. The Commission and DHMH may adopt policies that result in new general fund savings from reduced hospital or other payments made by Medicaid and those savings may be used to offset hospital assessment and remittance revenue in the first year that those policies are adopted. To the maximum extent possible, the Commission and DHMH shall adopt policies that preserve the state's Medicare waiver.

*Status:* Bill passed with the amendment

### **House Bill 100 – FY 2014 Budget Bill**

Language was added to the FY 2014 budget bill to withhold \$100,000 from DHMH's budget unless DHMH, in consultation with the HSCRC, submits two reports regarding the modernization of the Medicare Waiver. The two reports are:

- Within 30 days after the submission of a final application to CMS, submit a report containing the final application, changes from the March 2013 draft application, a preliminary timeline for implementation of Phase 1 of the modernization plan, and process of stakeholder input prior to any final decision being made by CMS and the State; and
- Within 30 days after CMS approval, a final timeline for the implementation of Phase 1 of the modernization plan, any regulatory or statutory changes required to implement Phase 1 of the plan, the process for stakeholder input prior to the implementation of Phase 1, and a timeline for the implementation of Phase 2 of the modernization plan.

*Status:* Language adopted

**Senate Bill 151/House Bill 373 – Hospitals – Outpatient Services – Off-Site Facility – Rate Regulation**

Senate Bill 151/House Bill 373 would remove one of four freestanding outpatient facilities owned by Shore Health System from HSCRC rate regulation. Maryland statute currently permits rate regulation of a freestanding outpatient facility under two circumstances: (1) where Memorial Hospital at Easton transferred certain outpatient services off-site prior to January 1, 1999, and (2) where several freestanding emergency centers are specifically provided for by statute (Health-General Article, Section 19-201).

Senate Bill 151 permits this hospital to send in a new notice by June 1, 2013 if it intends to eliminate rate regulation at its off-site digestive health center. The University of Maryland Medical System is required to report to the General Assembly on the utilization and payer mix of the patients using digestive disease services, both in the hospital, and at the off-site facility, before and after the deregulation of the off-site digestive health center.

*Status:* Bill passed with no amendments

*Position:* No Position; submitted a letter of information regarding TPR discussion.

**Senate Bill 195 – Hospitals – Notice to Patients – Outpatient Status and Billing Implications**

Senate Bill 195 requires a hospital, under specified circumstances, to provide oral and written notice to a patient of the patient's outpatient status, the billing implications of the outpatient status, and the impact of the outpatient status on the patient's eligibility for Medicare rehabilitation services. Specifically, a hospital must provide such notice if (1) the patient receives on-site services (including a hospital bed and meals provided in an area of the hospital other than the emergency room) from the hospital for more than 18 consecutive hours, and (2) the patient is classified as an outpatient at the hospital for observation rather than as an admitted inpatient. The Department of Health and Mental Hygiene (DHMH) must adopt by regulation standard language for the written notice required by the bill.

Amendments were adopted to:

- (1) increase the number hours from 18 to 23 ; and
- (2) require DHMH regulations to be conducted in consultation with hospitals, and rather than establishing standard notification language in regulations, they would instead provide standards elements to be included in the notification .

*Status:* Bill passed with the amendments

*Position:* Submitted letter of support of the intent of the bill

### **Senate Bill 274/House Bill 228 – Maryland Health Progress Fund**

Senate Bill 274/House Bill 228 includes a number of provisions relating to Medicaid eligibility requirements pursuant to the Affordable Care Act (ACA), and provides additional authority and policy for the operation of the Health Benefit Exchange, and makes changes to insurance law pursuant to the ACA. The bill includes language that would permit:

- any MHIP surplus funds available in FY14 to be used for the purpose of a reinsurance pool within the Health Benefit Exchange;
- beginning 2014, funds provided to MHIP to be transferred to the Reinsurance pool pursuant to a budget plan on how much is needed to continue to operate MHIP and how much is need to operate the Reinsurance pool;
- the transition of MHIP enrollees into the Exchange including closing MHIP between 2014 and 2020.

*Status:* House Bill passed

### **Senate Bills 1073, 1074, and 1075 – HSCRC Waiver Demo Bills**

Two of the bills establish task forces: (1) one to evaluate the quality impact that moving from a “per case” to a “per capita” payment model would have on patient care; and (2) the second is to study the potential impact that the application submitted in March would have on public health, health care planning, health care capital investments and financing, health care practitioners, uncompensated care, etc... The third bill would prohibit the State from applying for a new 1814(b) waiver, or submitting an application to reapply, modify, or amend the existing 1814(b) waiver until it is approved by the General Assembly.

*Status:* Bills did not move out of Committee

STATE OF MARYLAND  
DEPARTMENT OF HEALTH AND MENTAL HYGIENE



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Hospital Rate Setting

Mary Beth Pohl  
Deputy Director  
Research and Methodology

**HEALTH SERVICES COST REVIEW COMMISSION**

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[www.hscrc.state.md.us](http://www.hscrc.state.md.us)

**TO:** Commissioners  
**FROM:** Legal Department  
**DATE:** April 3, 2013  
**RE:** Hearing and Meeting Schedule

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**Public Session:**

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

June 5, 2012 1:00 p.m., 4160 Patterson Avenue, HSCRC Conference Room

Please note, Commissioner packets will be available in the Commission's office at 12:30 p.m.

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

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

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