All Payer Hospital System Modernization
Payment Models Workgroup

Meeting Agenda

October 1, 2014
1:00 pm to 4:00 pm
Health Services Cost Review Commission
Conference Room 100
4160 Patterson Ave
Baltimore, MD 21215

1:00	Introductions and Meeting Overview Donna Kinzer, Executive Director
1:10	Review Total Cost of Care Template Claudine Williams, Associate Director
1:40	Finalize GBR Revenue Corridor Approach Donna Kinzer, Executive Director
2:00	Update on Transfers Policy Sule Calikoglu, Deputy Director
2:30	Discussion of Guiding Principles for Market Share Policy Donna Kinzer, Executive Director
3:45	Comments from Public
3:55	Next Steps
4:00	Adjourn

ALL MEETING MATERIALS ARE AVAILABLE AT THE MARYLAND ALL-PAYER HOSPITAL SYSTEM MODERNIZATION TAB AT HSCRC.MARYLAND.GOV

Payment Models Work Group
Total Cost of Care Template Discussion

October 1, 2014

HSCRC
Health Services Cost Review Commission

Purpose of Total Cost of Care Reporting

- CMS Contract requires monitoring of Total Cost of Care:
  - Medicare per beneficiary total payments (guardrail)
  - All Payer Total Cost and Shifts to unregulated space
- The Medical Care Data Base (MCDB) is the likely resource for commercial claims data. However, there were initial concerns related to:
  - Timeliness of data
  - Potential gaps (coverage segments, carve outs)
- Data and Infrastructure Workgroup discussions and White Papers from a variety of stakeholders (CareFirst, MHA, JHHS) recommended collecting claims data, voluntarily, from major payers to monitor total cost of care and shifts to unregulated space

Guiding Principles for Total Cost of Care Reporting

- Simple enough to minimize reporting burdens to payers
- Clear definitions to ensure consistency in reporting
- Build on existing, well-documented models and data definitions so findings can be correlated and validated by other data sources
- Sufficiently disaggregated and comprehensive to trend all payer total cost, understand shifts from regulated to non-regulated settings, and whether the underlying cause of shift is related to changes in coverage or health status.

Progress in Developing Total Cost of Care Reporting

Voluntary Reporting from Payers:

- Medicare to provide data necessary for quarterly reporting
- Medicaid to provide annual report for MCO and FFS data
- Commercial insurers reluctant to supplement/duplicate MHCC reporting due to resources constraints

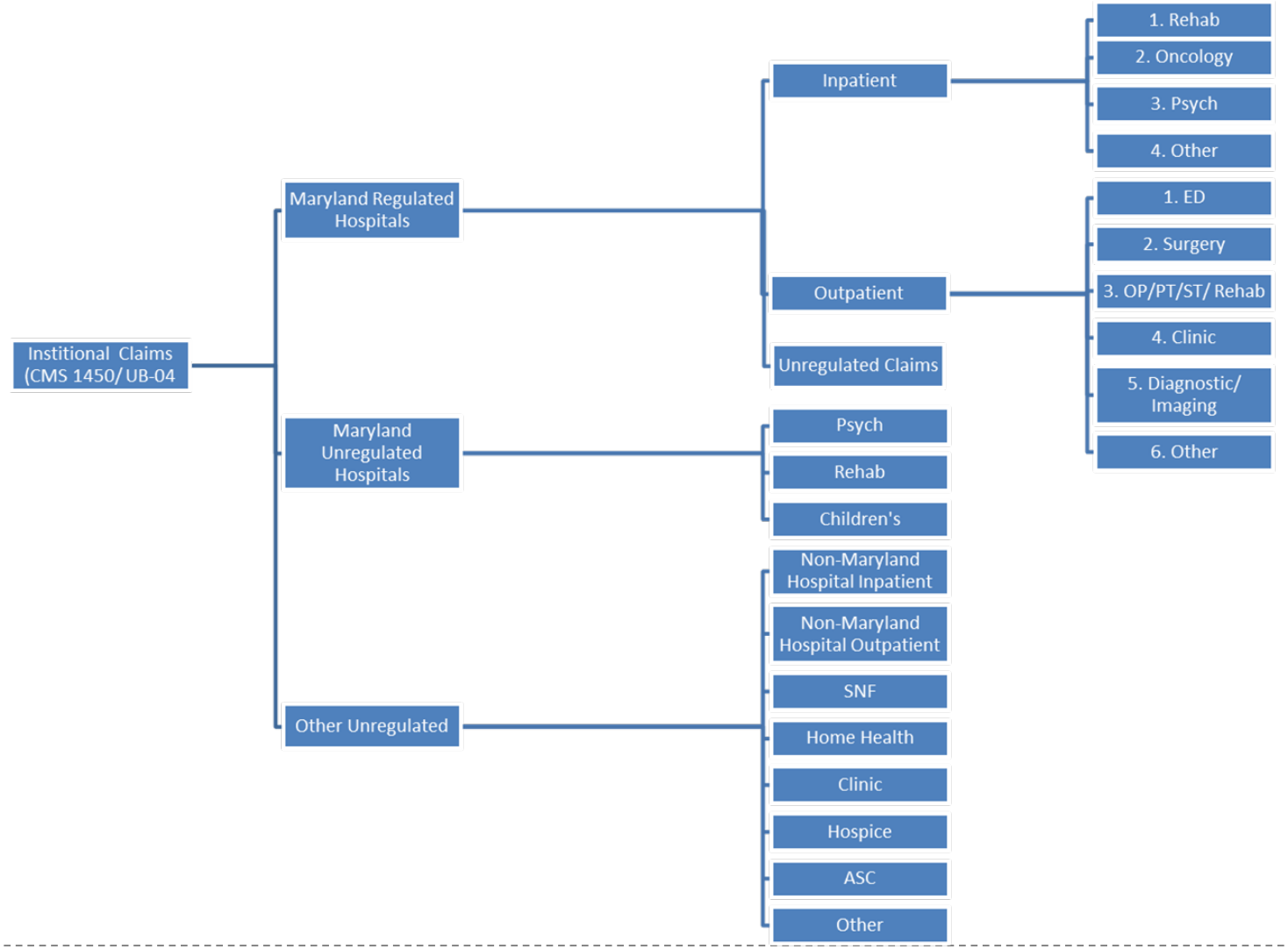
Option for Greater Reliance on MCDB

- Timeliness of MCDB data is expected to improve
- Supplement data available through the MCDB with Medicare and Medicaid data to produce the Total Cost of Care Report
- Timeline:
  - CY 2013 data currently available, with additional variables added by Dec 2014
  - CY 2014
    - Raw data available May 2015
    - Raw data with 1 qtr of runout data available August 2015
    - Reconciled data with 1 qtr of runout and additional variables available end of Sept 2015

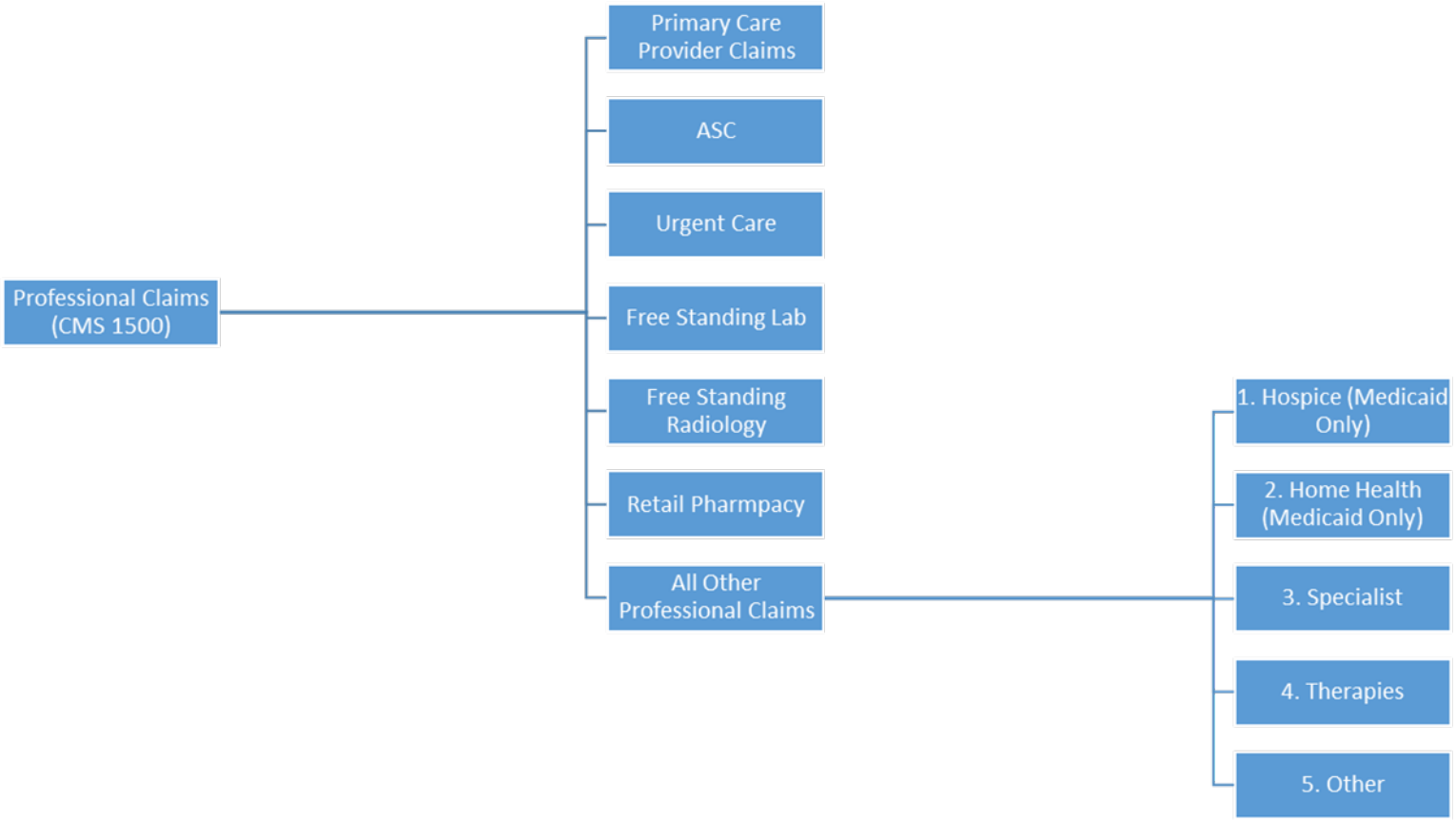
Overview of Proposed Reporting Template

- TCOC Report will collect aggregate claim count and expenses for specified categories of service
- Categories of Services
  - Institutional Claims: Universal Billing Form (UB-04)
  - Professional Claims: CMS 1500 Form
- Geographic Granularity
  - Maryland resident claims determined by billing zip code
- Demographic Granularity
  - Age breaks: 0-20, 21-44, 45-64, 65+
- Coverage Groups
  - Small group, large group, FFS, HMO, Duals

Proposed TCOC Aggregation: Institutional Claims



Proposed TCOC Aggregation: Professional Claims



DRAFT

CHARGE CORRIDORS WITHIN THE TOTAL PATIENT REVENUE AND GLOBAL BUDGET REVENUE AGREEMENTS

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

August 6, 2014

Objective

The purpose of this document is to explain the approach that the HSCRC will use to implement charge corridors for Hospitals operating under Global Budget Revenue (GBR) or Total Patient Revenue (TPR) agreements in Rate Year 2015. As HSCRC develops additional tools to measure market share changes, site of service shifts, investments in care improvement and alignment, and efficiency measures, the approach will be modified.

Overview of Unit Rate Charge Corridors

Both the TPR and GBR agreements allow hospitals to increase or decrease their approved unit rates in order to achieve the overall approved global revenue for the hospital. However, hospitals may only vary their approved unit rates within a charge corridor. Specifically, hospitals may not increase or decrease their approved unit rates by a magnitude of greater than 5% without receiving permission from the HSCRC. If permission is granted, the hospital will be allowed to expand the charge corridor to 10%. Neither the TPR nor the GBR agreements specify a process whereby the charge corridors might be expanded beyond 10%. Under this policy, underages below 10% in particular will not be added back to hospitals' approved revenues for the following year.

These corridors serve several purposes. They limit the ability of hospitals to cross subsidize or cost shift through undercharging in one center in order to overcharge in another center. Additionally, if a hospital's volume falls by more than 10%, this provision limits the ability of the hospital to charge up to its approved global revenue. A 10% decline in overall volume is substantial. The HSCRC staff believes that this mechanism will help ensure that the money follows the patient and that a hospital experiencing a substantial volume decrease will not be able to retain the revenue associated with that lost volume by increasing their unit rates without demonstrating the source of reductions. Rather volume shifted to other hospitals or to unregulated settings will result in an appropriate reduction in the hospital's global budget. Several purchasers have expressed concern about increasing unit rates when volumes are reduced. Consumer representatives also have agreed that this and other contract mechanisms are vital to helping protect consumers and ensure the patient-centeredness of the new All-Payer Model.

It must be noted though, that some hospitals and payer organizations have raised the concern that these charge corridors could undermine the efforts of hospitals to reduce potentially avoidable utilization by restricting their ability to keep and reinvest savings. Hospitals must make substantial investments in medical interventions, quality improvement, community based and primary care interventions, funding alignment models, internal care coordination and care coordination with other providers such as assisted living and skilled nursing facilities in order to improve population health and

achieve the desired results of the All-Payer Model. After making these considerable investments, hospitals are concerned that they may not be permitted to charge the full-approved global budget necessary to sustain these investments. Additionally, payers are concerned that hospitals will not continue efforts to reduce potentially avoidable utilization once the maximum volume reduction of 10% is reached within the charge corridor.

The HSCRC staff wants to address the concerns raised on both a short term and a longer-term basis. For now, HSCRC staff has identified factors that should be taken into consideration before a hospital will be granted permission to exceed the 10% charge corridor. At this time, we are not seeking to address undercharges that are beyond the 10% corridor. Although this could occur, it is a situation that would need to be addressed based on the surrounding facts and circumstances, because it would not result from successful application of the new All-Payer Model. Finally, charge variances that result from volume changes related to market share shifts or shifts to unregulated sites of care that fall within the 10% corridor will also be considered in the evaluation of market share adjustments and administration of the global budget agreements.

Considerations for 10% Charge Corridor Relief

If a hospital requests permission from the HSCRC to exceed the 10% charge corridor this request must appeal for relief needed in all rate centers. It is not the intent of the staff to allow concentration of rate adjustments resulting from volume declines in one or only a portion of centers or to allow cross-subsidization across centers. As outlined in the global agreements, staff expects these "balancing" rate adjustments to be spread across all centers evenly. The main purpose of granting relief is to provide stability and investment resources to hospitals and allow them the needed flexibility to adjust for significant volume declines as a result of reducing potentially avoidable utilization. There will be circumstances where HSCRC staff will not grant corridor relief. For example, it is possible that the volume declines may have resulted from market share changes, shifts to unregulated settings, temporary closures of services, or other actions which would not warrant an expansion of the corridors. Additionally, there may be some level of rate increase that would warrant an efficiency or shared savings adjustment due to the relative per capita or per episode efficiency of the hospital. In the near term, the HSCRC staff will need to focus on identifying and understanding the source of volume reductions and in turn, granting relief from the corridors when the volume reductions are consistent with the goals of the new Model.

Market Share Decline:

If a volume decrease is due to a decline in market share, 10% charge corridor relief should not be granted. Rather, through the market share policy, the variable portion of revenue associated with that market share decline should be removed from the global budget of the hospital experiencing the market share decline and added into the global budget of the hospital or hospitals that have realized a corresponding market share increase.

Shifts:

Under the TPR and GBR agreements, hospitals are required to notify the HSCRC of shifts of services to unregulated settings. If loss in volume is due to shifts to unregulated settings, 10% charge corridor relief should not be granted. The global budget of the hospital should be decreased at a level designed to ensure a net savings to the system and to Medicare.

Transfers:

If loss in volume is due to an increase in a hospital's transfer rate, 10% charge corridor relief should not be granted. Rather the variable revenue associated with those transferred patients should be remove from the global budget of the transferring hospital and added into the global budget of the receiving hospital or hospitals through the transfer policy.

Service Closures:

Under the TPR and GBR agreements, hospitals are required to notify the HSCRC of a service closure. Loss of volume due to service closures should not result in 10% charge corridor relief and should result in a reduction of the global budget.

Risk Avoidance:

HSCRC staff should monitor any changes in severity level of the requesting hospital to ensure that the requesting hospital is not experiencing a volume decline due to systematic avoidance of high-risk cases. HSCRC will focus on case mix and severity changes of the requesting hospital to evaluate the potential avoidance of providing necessary care.

Efficiency Outliers:

The HSCRC does not yet have efficiency measures in place for hospitals on global budgets. Ultimately, the HSCRC's goal will be to evaluate the total cost of care per capita and per episode. These measures are not available to guide the process in FY 2015. The staff does have some charge per case tools that have been used in the past. HSCRC staff will employ these tools and may choose to limit corridor relief when extreme outliers in existing charge per case measures or in rate comparisons are seen. Extremely inefficient outliers may not be granted permission to exceed the 10%.

Cost Containment and Investment Plans:

Loss in volume should result in reduced hospital costs. HSCRC staff will need to evaluate measures such as supply cost per adjusted discharge and labor cost per adjusted discharge

to ensure that the requesting hospital is taking the necessary steps to reduce costs when volumes are decreased

Review

To request relief, a hospital will need to submit the following information to staff:

1. A comparison of its base period volumes to the current volumes for each rate center, separated between inpatient and outpatient volumes.
    a. An explanation for any decrease in outpatient volumes will be necessary to ensure that shifts to unregulated settings or other hospitals have been accounted for.
    b. Staff will work with the hospital to gain information on the detected reductions. The hospital will need to update its annual attestation statement regarding known shifts of services.
2. A market share analysis should be completed.
    a. Staff has been working on several formats for this evaluation to evaluate volume changes by service line and to separately account for potentially avoidable utilization. Staff will work with the hospital to evaluate changes in market share. This should include an evaluation of transfers, temporary closures, or service discontinuation.
3. A comparison of case mix and severity levels between the base and current periods should be conducted.
    a. Any reductions in severity levels treated should be adequately explained.
4. The hospital should explain the actions it has taken and interventions implemented that have resulted in volume reductions.
    a. The hospital should show a reduction in PAU
    b. The hospital should describe the level of cost containment it has achieved.
5. The staff and hospital should review available information regarding efficiency, although as previously noted that the staff has not yet developed any per capita tools.

This process will become more automated over the course of the year as staff completes development of new tools and monitoring reports. The HSCRC recognizes though that the corridor relief review process will take time for both the hospital staff and HSCRC staff to conduct the review. HSCRC staff may grant temporary corridor relief for a limited time period during the review process.

Base Volumes

In order to maintain the placement of the corridors, the base period volumes (FY 2013) will need to be fixed and adjusted only for allowed volume changes due to granted population adjustments, market share shifts, or reductions based on revenue constraints made in the base period.

There is a potential issue with rate realignment that could result from the maintenance of base period. For FY 2015, this is not a concern because the base year and the annual filing year used for rate realignment are both FY 2013. For FY 2016, the HSCRC staff is aware that it will need to evaluate how to update volumes to FY 2014 to bring the rate realignment into synchronization. There are several options, and these can be addressed once staff evaluates the magnitude of volume differences between FY 2013 and FY 2014.

Transfer Cases Payment Adjustment under Global Revenue Models

Introduction

As academic medical centers (AMCs) providing quaternary services, Johns Hopkins Hospital and University of Maryland Medical Center play a distinct role in the health care system by handling a large proportion of highly acute cases, accepting regional referrals, and serving as centers for clinical and technological innovation in the State. For global models to be successful in Maryland, different regulatory treatment must be given to specific clinical service lines at these AMCs that will allow them to function effectively within this new payment structure. Under global models, hospitals are incentivized to lower expenses and volume by taking measures to reduce avoidable utilization and promote care management and quality improvement. This may result in community hospitals transferring complex cases to AMCs in order to get patients the advanced care they need and reduce the high costs associated with those patients. Patients transferred to AMCs are often critically ill patients or patients with highly specialized care not available at the transferring hospitals whose access to care should be ensured. Utilizing AMCs as regional referral centers may improve outcomes for critically ill patients and thus be beneficial to the entire Maryland health system. AMCs must have the capacity to take on a possible influx of complex cases without facing financial penalty under a global model. Inter-hospital transfers is one of those areas of special concern that must be addressed to ensure that resources are readily available to care for complex cases.

Global budgets change financial incentives. Hospitals have reduced incentives to keep highly complex cases that are beyond their capabilities in order to garner revenue. There is also a risk that hospitals could avoid complex cases altogether. HSCRC has included a number of requirements in global budget agreements to monitor for such outcomes including:

- Review of changes in severity levels or case mix of patients treated, with possible revenue reductions for declines;
- Review of volume declines beyond a specified level; and
- Potential revenue adjustments for shifts of services between hospitals (referred to as market share adjustment).

While each of these requirements can detect changing patterns in transfers, the relatively small numbers of complex cases makes transfers a special category of focus. HSCRC wants to ensure that financial policies are in place early in the implementation of global budgets to be responsive to potential changing patterns, aiding in the transfer of patients based on their clinical needs, while ensuring that the receiving entities have the capacity to take on the possible influx of complex cases without facing financial penalty under a global model.

Objectives/Guiding Principles

The HSCRC staff have collected data to aid in the development of a transfer policy. The following are some basic principles to guide the development and implementation of the Commission's transfer policy.

- The primary consideration is for the most appropriate treatment and well-being of the patient being transferred. Transfers should occur in order to serve the best interest of the patient.
- Transfer payment adjustments to the GBR revenues should use corridors to avoid minor adjustments to the GBR revenues.
- The current level and pattern of transfers should be used as the baseline, with subsequent revenue adjustments based on changes in transfer levels from the current level above determined thresholds.
- The Commission should regularly monitor hospitals for changes in transfer patterns for both financial and quality implications.
- The charge for increased transfers should be at a fixed predetermined level. The level should be low enough so that it does not pose a barrier to transfers yet high enough to provide for average incremental resource needs of complex patients transferred.
- Significant changes in the case mix of transfers can be addressed in the review of AMC budgets.
- Unique circumstances such as changing clinical protocols, ambulance patterns, or other changing circumstances can be evaluated on a hospital-specific basis.
- Transfers are a special subcategory of market share. HSCRC will need to take any adjustments made for transfers into account when it makes a market share adjustment.

Data Collection

HSCRC staff proposes to define transfers as same or next day admissions, meaning the discharge date of the initial admission or emergency "admission" will be the same day or the next day as the admission date of the second admission to the academic medical center. The subgroup recommended to expand the definition from same day to next day to include transfers that are admitted after midnight based on the validation results of same day transfers.

HSCRC staff has collected data to aid in the evaluation of transfer cases. Initially, staff focused on the transfer in/transfer out recorded in the case mix data, representing inpatient to inpatient transfers. However, this data has not been used for reimbursement in Maryland and did not prove to be accurate.

- There was confusion regarding whether a patient was being transferred from the emergency room or from an inpatient setting. Given the increasing numbers of observation cases, this confusion is not surprising.
- Referrals were recorded as transfers in the data. There were sometimes multiple day gaps between the transfer out and the transfer in.
- The recording of transfers out and transfers in did not match.

In order to overcome these problems, HSCRC staff has used the master patient index provided from CRISP to track patient flow from one hospital to another. In doing so, patients were tracked with

direct transfers from emergency room settings as well as inpatient settings. HSCRC staff will request that selected hospitals review this data to ensure that transfers are being properly identified.

DATA VALIDATION RESULTS INCOMPLETE DRAFT

The table below provides reconciliation results based on data provided to HSCRC as of 10/01/2014 validating same day or next day transfers. In general, the information received from referring hospitals validate the measurement counts (Table 1). On the other hand, AMCs indicated that they have found additional transfer cases that were not included in the HSCRC transfer case list (Table 2). Some of these additional transfer cases send by the University Medical Center do not have CRISP ID (3% of transfer cases identified by HSCRC), which will be further analyzed with CRISP. HSCRC will continue to validate the counts hospital by hospital using case level information from both sending and receiving hospital.

Table 1: Validation Results from Referring Hospitals													
ID	Sending Hospital Name	Total Number of Included Cases	Total Number of Cases Disagreed	Percent Disagree	Total Number of Additional Transfers Sent	Total Number of Additional Transfers met the Inclusion Criteria	Percent Additional	Total Number of Additional Transfers Send - Inpatient	CRISP ID NOT FOUND-Inpatient	Additional Transfers that met the Inclusion Criteria from Inpatient	Total Number of Additional Transfers Send - Outpatient	CRISP ID NOT FOUND-Outpatient	Additional Transfers that met the Inclusion Criteria from Outpatient
210012	SINAI	237	55	23%	0	0	0%	0					
210033	CARROLL COUNTY	511	23	5%	0	0	0%	0					
210005	FREDERICK MEMORIAL	398	15	4%	0	0	0%	0					
210051	DOCTORS COMMUNITY	153	4	3%	0	0	0%	0					
210035	CHARLES REGIONAL	38	0	0%	1186	0	0%	13		0	1173	0	0
210043	BALTIMORE WASHINGTON MEDICAL CENTER	127	0	0%	776	0	0%	37	3	0	725	11	0
210049	UPPER CHESAPEAKE HEALTH	137	0	0%	659	0	0%	90		0	569	0	0
210006	HARFORD	44	0	0%	389	0	0%	37	0	0	352	0	0
210030	CHESTERTOWN	28	0	0%	252	2	0%	5		0	247	0	2
210010	DORCHESTER	20	0	0%	247	1	0%	5		0	242	0	1
210037	EASTON	82	0	0%	239	1	0%	26	1	0	213	1	1
210063	UM ST. JOSEPH	50	0	0%	111	0	0%	10	2	0	99	1	0
210038	UMMC MIDTOWN	42	0	0%	78	0	0%	19		0	59	0	0
210008	MERCY	283											
210015	FRANKLIN SQUARE	419											
210018	MONTGOMERY GENERAL	59											
210024	UNION MEMORIAL	215											
210028	ST. MARY	79											
210034	HARBOR	299											
210044	G.B.M.C.	224											
210056	GOOD SAMARITAN HOSPITAL	375											
210058	REHAB & ORTHO	10											
210062	SOUTHERN MARYLAND	95											
210088	QUEEN ANNE'S EMERGENCY CENTER	69											
218992	UNIVERSITY OF MD SHOCK TRAUMA												
Total		**3,994**	**97**	**2%**	**3937**	**4**	**0%**	**242**	**6**	**0**	**3679**	**13**	**4**

Table 2: Validation Results from Academic Medical Centers		
Receving Hospital Name	University of Maryland and MIEMS	Johns Hopkins University
Total Number of Included Cases	4,569	3,102
Total Number of Cases Disagreed	0	
Percent Disagree	0%	
Additional Cases Send	1,387	
Missing EID	126	
Previous Visit more than 1 day	1,222	
Same System	13	
Not From ED	2	
Total Number of Additional Transfers	0	
Percent Additional	0%	

Transfer Case Exclusions

Certain types of cases have been excluded from the analysis of transfers. Each exclusion and the rationale are discussed below:

- Categorical cases were excluded, because these cases are already being handled under a different global budget review mechanism. The definition of categorical cases is shown in Appendix A.
- Non-Maryland resident transfer cases have been excluded. This may require additional evaluation for hospitals located near the State's borders.
- MDC 5 (cardiology and cardiac surgery) has been excluded. There are alternative competitors for this care, and the HSCRC staff have focused on those categories where the special resources of an AMC resulted in the transfer.
- Psychiatric transfers (based on the receiving institution's recorded APR-DRG of 740,750-760) have been excluded as this is a category where there are a number of institutions providing the service.
- Rehab cases have been excluded (APR_DRG 860, 980-989) based on the planned nature of these transfers.

In addition, transfers within the same hospital or within the same hospital system were excluded from the analysis. Transfers within the same hospital are under the same global budget. Transfers within a hospital system may reflect resource planning approaches and specialization. While global budgets may be adjusted for these transfers, it should occur under a different process.

Transfer Monitoring Categories

To monitor out of state transfers, particularly for border hospitals, and to evaluate the possibility of unintended consequences of the transfer policy, the following additional categories will closely be monitored:

1. Transfers that are excluded from payment adjustments
2. Transfers to out of state providers
3. Levels of ED Diversion
4. Casemix intensity of transfer cases
5. Length of stay of transfer cases in sending and receiving hospitals

Transfer Payment Measures

HSCRC staff is proposing the following measurement for the payment adjustments:

AMC GBR Transfer Adjustments

On a quarterly basis, AMC GBR budgets are adjusted by the increase or decrease in transfer cases net of population adjustment weighted by the average adjusted cost. The average adjusted cost is calculated as the base year average charge *Price update*Variable Cost Factor. The adjustments are done separately for patient transferred from inpatient setting and from Emergency Departments based on the recommendations from the sub-workgroup. Table 1 below illustrates the calculation.

Table 3: Example calculation of AMC Adjustments			
Price Update (1/2FY14Update+1/2FY2015Update)	A		1.68%
VCF	B		50%
Transfers From ED			
Average Charge of Transfer Cases in CY2013	C		$24,159
Average Transfer Case Adjustment	D=	C*(1+A)*B	$12,283
Number of Transfers in the Base Period	E		4,958
Number of Transfers in the Current Period	F		
Total Adjustment	G=	D*(F-E)	
Transfers From Inpatient			
Average Charge of Transfer Cases in CY2013	H		$46,497
Average Transfer Case Adjustment	I=	H*(1+A)*B	$23,639
Number of Transfers in the Base Period	J		2,713
Number of Transfers in the Current Period	K		
Total Adjustment	L=	I*(K-J)	
Total Adjustment	M=	G+L	
Population Adjustment	N		0.70%
Total Transfer Adjustment	O=	M*(1-N)	

Hospital GBR Transfer Adjustments

Hospital's transfer cases will be monitored on a quarterly basis and the GBR revenues will be reduced on an annual basis by the increase in transfer cases weighted by the average adjusted cost. The average adjusted cost for these adjustments will be determined according to the formula stated in AMC adjustments. If cumulative payment adjustments to the AMCs exceed 5% of the base year transfer charges, HSCRC staff may adjust the transferring hospital GBR budgets during the course of the fiscal year. Increases in transfers will be netted against decreases in transfers except to the extent that the increase in a particular hospital is above a 10% threshold and there are at least 10 additional transfers. For hospitals with increases above a 10% threshold, those cases above the threshold will be charged to the budget of the GBR hospital, thereby reducing the GBR revenue for the preceding year for that hospital. If the net amount of transfers for the entire State does not exceed an increase of 5% of the base transfers, then no reductions will be made for transfers below a 10% threshold. If the net transfer amount exceeds an increase of 5%, then the excess over 5% will be deducted on a per case basis for those hospitals with increases in transfer cases between 5% and 10%. Table 2 below illustrates the sample calculation.

The trends in transfers will be monitored using monthly case-mix data submissions using CRISP master patient index. Annual adjustments for FY 2016 will be based on comparing July 1st 2013-December 30th 2013 to July1st 2014-December 30th 2014 time periods depending on the progress on data validation.

Table 4: GBR Revenue Transfer Adjustment													
Hospital Name	Annualized Transfer Cases based on CY2013 Jan-May -CY2014 Jan-May						Total Transfer Cost			GBR Revenue Transfer Adjustment			
	2013			2014									
	From ED	From IP	Total	From ED	From IP	Total	2013	2014	% Cost Growth	$ Growth	10 % Threshold $	Additional Transfer Cases	Threshold Adjustment
	A	B	C=A+B	D	E	F=D+E	G=(A*EDCOST) +(B*INP.COST)	H=(D*EDCOST) +(E*INP.COST)	G=H/G-1	I=H-G	J=G*10%	K=F-C	L=IF K>=10; I-J
GARRETT COUNTY	7	0	7	2	7	10	$173,948	$392,761	125.8%	$218,813	$17,395	2	$ -
ST. MARY	46	17	62	82	34	115	$1,882,819	$3,533,708	87.7%	$1,650,889	$188,282	53	-$1,462,607
BALTIMORE WASHINGTON MEDICAL CENTER	110	19	130	106	65	170	$3,559,943	$5,564,241	56.3%	$2,004,299	$355,994	41	-$ 1,648,304
CHARLES REGIONAL	31	10	41	31	19	50	$1,200,145	$1,646,517	37.2%	$446,371	$120,015	10	-$326,357
FT. WASHINGTON	7	10	17	7	14	22	$620,319	$843,505	36.0%	$223,186	$62,032	5	$ -
JOHNS HOPKINS	34	7	41	41	12	53	$1,146,535	$1,543,668	34.6%	$397,133	$114,654	12	-$282,480
HARFORD	31	7	38	41	10	50	$1,088,552	$1,432,076	31.6%	$343,523	$108,855	12	-$ 234,668
CALVERT	89	58	146	144	60	204	$4,823,584	$6,268,777	30.0%	$1,445,193	$482,358	58	-$962,834
UNIVERSITY OF MARYLAND	48	36	84	58	43	101	$2,833,545	$3,400,254	20.0%	$566,709	$283,354	17	-$283,354
UPPER CHESAPEAKE HEALTH	89	29	118	118	26	144	$3,484,470	$4,068,669	16.8%	$584,198	$348,447	26	-$235,751
SOUTHERN MARYLAND	31	29	60	48	26	74	$2,092,888	$2,387,173	14.1%	$294,285	$209,289	14	-$84,997
NORTHWEST	132	77	209	168	72	240	$6,760,014	$7,406,568	9.6%	$646,553	$676,001	31	$ -
MERITUS	170	118	288	235	103	338	$9,584,814	$10,480,787	9.3%	$895,973	$958,481	50	$ -
WESTERN MARYLAND HEALTH SYSTEM	60	46	106	58	50	108	$3,569,829	$3,735,032	4.6%	$165,203	$356,983	2	$ -
CARROLL COUNTY	386	96	482	355	118	473	$13,798,913	$14,049,475	1.8%	$250,562	$1,379,891	-10	$ -
EASTON	89	14	103	67	26	94	$2,814,913	$2,851,034	1.3%	$36,121	$281,491	-10	$ -

Table 4: GBR Revenue Transfer Adjustment

Hospital Name	Annualized Transfer Cases based on CY2013 Jan-May -CY2014 Jan-May						Total Transfer Cost			GBR Revenue Transfer Adjustment			
	2013			2014									
	From ED	From IP	Total	From ED	From IP	Total	2013	2014	% Cost Growth	$ Growth	10 % Threshold $	Additional Transfer Cases	Threshold Adjustment
HARBOR	233	77	310	209	91	300	$9,195,284	$9,285,015	1.0%	$89,731	$919,528	-10	$ -
CHESTERTOWN	38	5	43	43	2	46	$1,150,907	$1,155,280	0.4%	$4,372	$115,091	2	$ -
ST. AGNES	283	156	439	343	120	463	$14,095,482	$13,871,155	-1.6%	-$224,327	$1,409,548	24	$ -
UM ST. JOSEPH	31	19	50	29	19	48	$1,646,517	$1,588,534	-3.5%	-$57,983	$164,652	-2	$ -
QUEEN ANNES	67	0	67	65	0	65	$1,623,513	$1,565,530	-3.6%	-$57,983	$162,351	-2	$ -
UNION HOSPITAL OF CECIL COUNT	48	41	89	38	43	82	$3,056,730	$2,936,393	-3.9%	-$120,338	$305,673	-7	$ -
WASHINGTON ADVENTIST	46	43	89	26	50	77	$3,110,341	$2,981,258	-4.2%	-$129,082	$311,034	-12	$ -
FREDERICK MEMORIAL	190	185	374	204	161	365	$13,173,274	$12,405,241	-5.8%	-$768,033	$1,317,327	-10	$ -
HOWARD COUNTY	139	70	209	161	48	209	$6,599,183	$6,116,691	-7.3%	-$482,492	$659,918	0	$ -
SHADY GROVE	84	79	163	53	86	139	$5,711,955	$5,292,959	-7.3%	-$418,995	$571,195	-24	$ -
MERCY	192	70	262	163	72	235	$7,874,801	$7,290,602	-7.4%	-$584,198	$787,480	-26	$ -
G.B.M.C.	142	79	221	91	94	185	$7,103,537	$6,555,460	-7.7%	-$548,078	$710,354	-36	$ -
ANNE ARUNDEL	235	185	420	235	161	396	$14,274,944	$13,159,015	-7.8%	-$1,115,928	$1,427,494	-24	$ -
FRANKLIN SQUARE	288	151	439	259	139	398	$13,988,261	$12,734,506	-9.0%	-$1,253,755	$1,398,826	-41	$ -
PRINCE GEORGE	36	58	94	46	46	91	$3,547,967	$3,221,933	-9.2%	-$326,034	$354,797	-2	$ -
LAUREL REGIONAL	108	50	158	79	55	134	$4,952,667	$4,480,061	-9.5%	-$472,606	$495,267	-24	$ -
SINAI	151	101	252	106	103	209	$8,339,803	$7,349,727	-11.9%	-$990,077	$833,980	-43	$ -
GOOD SAMARITAN	310	62	372	202	79	281	$10,381,170	$8,553,103	-17.6%	-$1,828,068	$1,038,117	-91	$ -
PENINSULA REGIONAL	262	151	413	254	103	358	$13,350,453	$10,944,648	-18.0%	-$2,405,804	$1,335,045	-55	$ -
UNION	180	46	226	94	60	154	$6,468,959	$5,051,143	-21.9%	-	$646,896	-72	$ -

Table 4: GBR Revenue Transfer Adjustment													
Hospital Name	Annualized Transfer Cases based on CY2013 Jan-May -CY2014 Jan-May						Total Transfer Cost			GBR Revenue Transfer Adjustment			
	2013			2014									
	From ED	From IP	Total	From ED	From IP	Total	2013	2014	% Cost Growth	$ Growth	10 % Threshold $	Additional Transfer Cases	Threshold Adjustment
MEMORIAL										$1,417,817			
REHAB & ORTHO	0	10	10	0	7	7	$446,371	$334,778	-25.0%	-$111,593	$44,637	-2	$ -
HOPKINS BAYVIEW MED CTR	22	12	34	14	10	24	$1,079,808	$794,267	-26.4%	-$285,541	$107,981	-10	$ -
DOCTORS COMMUNITY	48	94	142	58	53	110	$5,511,773	$3,846,625	-30.2%	-$1,665,148	$551,177	-31	$ -
BON SECOURS	238	82	319	173	50	223	$9,534,434	$6,518,197	-31.6%	-$3,016,237	$953,443	-96	$ -
SUBURBAN	7	10	17	7	5	12	$620,319	$397,133	-36.0%	-$223,186	$62,032	-5	$ -
MONTGOMERY GENERAL	43	38	82	41	17	58	$2,829,172	$1,766,854	-37.5%	-$1,062,318	$282,917	-24	$ -
UMMC MIDTOWN	31	12	43	24	5	29	$1,311,738	$803,012	-38.8%	-$508,726	$131,174	-14	$ -
HOLY CROSS	43	60	103	14	36	50	$3,833,508	$2,021,788	-47.3%	-$1,811,720	$383,351	-53	$ -
ATLANTIC GENERAL	84	55	139	46	26	72	$4,596,026	$2,329,191	-49.3%	-$2,266,836	$459,603	-67	$ -
DORCHESTER	24	0	24	7	2	10	$579,826	$285,541	-50.8%	-$294,285	$57,983	-14	$ -
MCCREADY	17	0	17	0	0	0	$405,878	$0	-100.0%	-$405,878	$40,588	-17	$ -
BOWIE HEALTH	12	0	12	0	0	0	$289,913	$0	-100.0%	-$289,913	$28,991	-12	$ -
Total	**4,992**	**2,570**	**7,562**	**4,644**	**2,431**	**7,075**	**$233,302,893**	**$214,102,658**	**-8.2%**	**-$19,200,235)**	**$ 23,330,289**	**-487**	**-$5,521,353**

Data Analysis Results

Table 5: Same and Next Day Transfers Exclusions , CY 2013							
	Receiving Hospital				Total	Percent Total	AMC Percent
	UMMS	MIEMSS	JHH	Non-AMC			
Total Same and Next Day Transfers	8,230	2,402	7,446	35,622	53,700	100%	34%
Transfer Exclusions							
1. Same Hospital	633	58	1309	11937	13,937	26%	-
2.Same System	2,853	765	1,583	6,329	11,530	21%	-
3.Non-Resident	194	113	197	829	1,333	2%	-
4. MDC 5	679	31	722	2548	3,980	7%	**36%**
5.Rehab	0	0	8	1963	1,971	4%	**0%**
6.Pysch	575	1	255	3940	4,771	9%	**17%**
7.Categorical Exclusions	161	0	270	122	553	1%	**78%**
Transfers Included in the Analysis	3,135	1,434	3,102	7,954	15,625	**29%**	**49%**

Counts are mutually exclusive in hieratical order as displayed in the table. *Burn cases at Johns Hopkins Bayview Hospital.

Table 6: Same and Next Day Transfers by Source CY 2013									
	Number of Transfers			Average Charge			Total Charge		
	Source		All	Source		All	Source		All
	From ED	From Inpatient		From ED	From Inpatient		From ED	From Inpatient	
Receiving Hospital									
UMMS	1,687	1,448	3,135	$23,037	$42,998	$32,257	$38,863,914	$62,261,525	$101,125,439
MIEMSS	1,165	269	1,434	$30,147	$70,573	$37,730	$35,121,246	$18,984,038	$54,105,284
JHH	2,106	996	3,102	$21,746	$45,081	$29,239	$45,797,245	$44,900,834	$90,698,079
Total	4,958	2,713	7,671	$24,159	$46,497	$ 32,060	$ 119,782,405	$ 126,146,397	$ 245,928,802
Non-AMC	5,684	2,270	7,954	$10,800	$18,383	$12,964	$61,389,173	$41,728,338	$103,117,510

Table 7: AMC Transfers DRGS with 5 or more Cases					
APR DRG Code	APR DRG NAME	Total charges			Average Age
		N	Mean	Sum	
720	Septicemia & disseminated infections	224	$45,466	$10,184,359	51.82
45	CVA & precerebral occlusion w infarct	188	$21,788	$4,096,208	59.32
53	Seizure	179	$16,508	$2,954,986	25.68
21	Craniotomy except for trauma	164	$80,177	$13,149,086	52.46
55	Head trauma w coma >1 hr or hemorrhage	162	$14,945	$2,421,057	55.08
254	Other digestive system diagnoses	158	$10,086	$1,593,621	34.98
141	Asthma	155	$8,440	$1,308,269	6.45
315	Shoulder, upper arm & forearm procedures	132	$19,458	$2,568,419	26.08
58	Other disorders of nervous system	126	$12,667	$1,595,999	47.5
44	Intracranial hemorrhage	125	$24,033	$3,004,159	61.79
347	Other back & neck disorders, fractures & injuries	121	$10,251	$1,240,380	58.57
383	Cellulitis & other bacterial skin infections	118	$9,737	$1,148,932	36.13
710	Infectious & parasitic diseases including HIV w O.R. procedure	113	$98,346	$11,113,045	53.58
4	ECMO or tracheostomy w long term mechanical ventilation w extensive procedure	112	$250,566	$28,063,364	50.21
139	Other pneumonia	111	$11,645	$1,292,587	17.4
313	Knee & lower leg procedures except foot	103	$38,359	$3,951,020	46.91
282	Disorders of pancreas except malignancy	93	$14,945	$1,389,912	47.14
92	Facial bone procedures except major cranial/facial bone procedures	91	$24,366	$2,217,320	33.6
279	Hepatic coma & other major acute liver disorders	90	$21,957	$1,976,125	51.49
308	Hip & femur procedures for trauma except joint replacement	89	$37,747	$3,359,458	57.49
721	Post-operative, post-traumatic, other device infections	89	$17,195	$1,530,318	46.11
221	Major small & large bowel procedures	82	$61,250	$5,022,463	48.37
466	Malfunction, reaction, complic of genitourinary device or proc	81	$21,955	$1,778,353	49.83
420	Diabetes	80	$9,210	$736,768	21.75
284	Disorders of gallbladder & biliary tract	78	$13,134	$1,024,483	52.86
384	Contusion, open wound & other trauma to skin & subcutaneous tissue	77	$7,606	$585,659	36.14
813	Other complications of treatment	77	$14,776	$1,137,728	52.32
351	Other musculoskeletal system & connective tissue diagnoses	69	$9,183	$633,603	39.17
566	Other antepartum diagnoses	66	$9,220	$608,534	26.47
114	Dental & oral diseases & injuries	64	$6,531	$417,964	36.52
247	Intestinal obstruction	64	$11,732	$750,850	45.78
861	Signs, symptoms & other factors influencing health status	64	$10,230	$654,736	31.94
252	Malfunction, reaction & complication of GI device or procedure	62	$16,171	$1,002,623	49.77
5	Tracheostomy w long term mechanical ventilation w/o extensive procedure	59	$143,937	$8,492,270	55.54
82	Eye disorders except major infections	59	$7,097	$418,731	39.39
115	Other ear, nose, mouth,throat & cranial/facial diagnoses	59	$11,429	$674,299	39.08
138	Bronchiolitis & RSV pneumonia	59	$12,051	$710,982	1.51
143	Other respiratory diagnoses except signs, symptoms & minor diagnoses	59	$14,586	$860,564	38.9
249	Non-bacterial gastroenteritis, nausea & vomiting	59	$7,633	$450,370	25.29
342	Fractures & dislocations except femur, pelvis & back	57	$6,690	$381,340	40.6
57	Concussion, closed skull Fx nos,uncomplicated intracranial injury, coma < 1 hr or no coma	56	$6,436	$360,410	27.82
113	Infections of upper respiratory tract	56	$6,442	$360,738	12.93
130	Respiratory system diagnosis w ventilator support 96+ hours	56	$85,660	$4,796,986	43.77
283	Other disorders of the liver	56	$19,481	$1,090,931	45.2

Table 7: AMC Transfers DRGS with 5 or more Cases					
APR	APR DRG NAME	Total charges			Average
711	Post-op, post-trauma, other device infections w O.R. procedure	56	$50,271	$2,815,199	50.64
133	Pulmonary edema & respiratory failure	53	$36,403	$1,929,351	39.53
248	Major gastrointestinal & peritoneal infections	53	$21,358	$1,131,998	46.09
662	Sickle cell anemia crisis	52	$17,048	$886,473	26.38
253	Other & unspecified gastrointestinal hemorrhage	51	$15,299	$780,224	58.37
812	Poisoning of medicinal agents	50	$10,963	$548,165	20.94
22	Ventricular shunt procedures	49	$60,302	$2,954,781	32.04
463	Kidney & urinary tract infections	49	$8,368	$410,027	32.86
54	Migraine & other headaches	47	$8,549	$401,820	36.11
317	Tendon, muscle & other soft tissue procedures	47	$54,234	$2,548,985	43.94
23	Spinal procedures	46	$72,623	$3,340,663	53.72
241	Peptic ulcer & gastritis	46	$15,904	$731,587	50.83
281	Malignancy of hepatobiliary system & pancreas	45	$17,338	$780,225	64.62
137	Major respiratory infections & inflammations	43	$25,515	$1,097,140	47.6
791	O.R. procedure for other complications of treatment	43	$38,957	$1,675,137	51.21
135	Major chest & respiratory trauma	42	$12,870	$540,550	62.14
225	Appendectomy	42	$17,554	$737,250	12
346	Connective tissue disorders	41	$29,912	$1,226,377	39.56
460	Renal failure	41	$25,509	$1,045,864	54.71
912	Musculoskeletal & other procedures for multiple significant trauma	41	$68,099	$2,792,063	48.39
52	Nontraumatic stupor & coma	40	$32,704	$1,308,144	51.33
121	Other respiratory & chest procedures	40	$48,684	$1,947,367	45.08
243	Other esophageal disorders	39	$12,045	$469,737	40.87
280	Alcoholic liver disease	38	$22,794	$866,153	51.97
663	Other anemia & disorders of blood & blood-forming organs	38	$12,435	$472,513	27.03
930	Multiple significant trauma w/o O.R. procedure	38	$13,951	$530,128	51.58
561	Postpartum & post abortion diagnoses w/o procedure	35	$5,050	$176,767	27.8
20	Craniotomy for trauma	34	$53,024	$1,802,808	54.71
48	Peripheral, cranial & autonomic nerve disorders	34	$16,143	$548,849	45.53
251	Abdominal pain	34	$6,471	$220,024	40.71
24	Extracranial vascular procedures	33	$70,349	$2,321,531	50.91
724	Other infectious & parasitic diseases	33	$21,104	$696,434	34.52
41	Nervous system malignancy	32	$18,108	$579,459	58.41
56	Brain contusion/laceration & complicated skull Fx, coma < 1 hr or no coma	32	$8,447	$270,289	40.41
950	Extensive procedure unrelated to principal diagnosis	32	$67,934	$2,173,898	52.13
144	Respiratory signs, symptoms & minor diagnoses	32	$12,675	$405,586	33.78
844	Partial thickness burns w or w/o skin graft	32	$4,475	$143,194	3.44
305	Amputation of lower limb except toes	31	$81,572	$2,528,718	52.74
220	Major stomach, esophageal & duodenal procedures	30	$60,726	$1,821,786	54.43
301	Hip joint replacement	30	$53,705	$1,611,164	69.13
309	Hip & femur procedures for non-trauma except joint replacement	30	$54,462	$1,633,867	41.57
425	Electrolyte disorders except hypovolemia related	30	$15,950	$478,506	46.57
468	Other kidney & urinary tract diagnoses, signs & symptoms	30	$9,622	$288,651	43.1
304	Dorsal & lumbar fusion proc except for curvature of back	29	$101,162	$2,933,691	57.83
364	Other skin, subcutaneous tissue & related procedures	29	$22,526	$653,241	35.45
816	Toxic effects of non-medicinal substances	29	$16,269	$471,792	40.41
98	Other ear, nose, mouth & throat procedures	28	$17,585	$492,385	32.61
321	Cervical spinal fusion & other back/neck proc exc disc excis/decomp	28	$66,079	$1,850,219	63.96

Table 7: AMC Transfers DRGS with 5 or more Cases					
APR	APR DRG NAME	Total charges			Average
344	Osteomyelitis, septic arthritis & other musculoskeletal infections	28	$29,148	$816,150	49.14
660	Major hematologic/immunologic diag exc sickle cell crisis & coagul	28	$46,869	$1,312,322	42.32
951	Moderately extensive procedure unrelated to principal diagnosis	27	$48,283	$1,303,631	43.07
134	Pulmonary embolism	27	$19,082	$515,222	47.52
723	Viral illness	27	$10,060	$271,624	25.19
49	Bacterial & tuberculous infections of nervous system	26	$41,704	$1,084,316	50.19
245	Inflammatory bowel disease	26	$12,479	$324,441	31.46
260	Major pancreas, liver & shunt procedures	26	$69,436	$1,805,325	53.42
263	Laparoscopic cholecystectomy	26	$22,839	$593,823	37.46
424	Other endocrine disorders	25	$18,677	$466,924	50.84
43	Multiple sclerosis & other demyelinating diseases	24	$33,447	$802,721	43.88
136	Respiratory malignancy	24	$31,122	$746,917	63.5
240	Digestive malignancy	24	$18,958	$454,983	60.46
890	HIV w multiple major HIV related conditions	24	$36,710	$881,045	46.96
314	Foot & toe procedures	22	$28,465	$626,222	42.68
385	Other skin, subcutaneous tissue & breast disorders	22	$9,607	$211,360	36.27
722	Fever	22	$10,292	$226,417	38.36
42	Degenerative nervous system disorders exc mult sclerosis	21	$28,885	$606,581	59.71
690	Acute leukemia	21	$62,222	$1,306,669	61.67
631	Neonate birthwt >2499g w other major procedure	21	$79,492	$1,669,341	0
229	Other digestive system & abdominal procedures	20	$43,213	$864,267	48.35
634	Neonate, birthwt >2499g w resp dist synd/oth maj resp cond	20	$56,262	$1,125,245	0
223	Other small & large bowel procedures	19	$34,715	$659,579	30
224	Peritoneal adhesiolysis	19	$30,221	$574,197	34.84
244	Diverticulitis & diverticulosis	19	$15,702	$298,341	69.74
815	Other injury, poisoning & toxic effect diagnoses	19	$22,700	$431,307	22.58
50	Non-bacterial infections of nervous system exc viral meningitis	18	$43,090	$775,618	48.39
73	Eye procedures except orbit	18	$32,272	$580,897	39
422	Hypovolemia & related electrolyte disorders	18	$10,087	$181,562	42.83
560	Vaginal delivery	18	$11,538	$207,687	24.22
661	Coagulation & platelet disorders	18	$28,616	$515,095	28.33
775	Alcohol abuse & dependence	18	$14,512	$261,224	45.72
142	Interstitial lung disease	17	$27,546	$468,284	56.24
228	Inguinal, femoral & umbilical hernia procedures	17	$22,102	$375,731	22
633	Neonate birthwt >2499g w major anomaly	17	$57,848	$983,415	0
911	Extensive abdominal/thoracic procedures for mult significant trauma	17	$103,346	$1,756,888	39.82
40	Spinal disorders & injuries	16	$23,232	$371,716	59.06
340	Fracture of femur	16	$7,455	$119,287	31.19
380	Skin ulcers	15	$16,497	$247,452	46.53
513	Uterine & adnexa procedures for non-malignancy except leiomyoma	15	$18,683	$280,240	38.87
691	Lymphoma, myeloma & non-acute leukemia	15	$37,047	$555,707	59.67
892	HIV w major HIV related condition	15	$23,987	$359,800	41.13
26	Other nervous system & related procedures	14	$45,818	$641,457	38.43
222	Other stomach, esophageal & duodenal procedures	14	$33,000	$461,998	6.93
320	Other musculoskeletal system & connective tissue procedures	14	$58,442	$818,186	54.29
588	Neonate bwt <1500g w major procedure	14	$271,803	$3,805,239	0
47	Transient ischemia	13	$6,221	$80,873	59.31
70	Orbital procedures	13	$16,202	$210,623	41.23

Table 7: AMC Transfers DRGS with 5 or more Cases					
APR	APR DRG NAME	Total charges			Average
120	Major respiratory & chest procedures	13	$100,765	$1,309,951	37.46
343	Musculoskeletal malignancy & pathol fracture d/t muscskel malig	13	$24,126	$313,637	54.38
540	Cesarean delivery	13	$15,784	$205,189	30.46
811	Allergic reactions	13	$6,126	$79,631	35.85
80	Acute major eye infections	12	$16,200	$194,404	45.83
310	Intervertebral disc excision & decompression	12	$50,855	$610,262	44.5
341	Fracture of pelvis or dislocation of hip	12	$10,164	$121,973	56.25
349	Malfunction, reaction, complic of orthopedic device or procedure	12	$17,081	$204,972	58.08
481	Penis procedures	12	$28,635	$343,620	46.92
132	BPD & oth chronic respiratory diseases arising in perinatal period	11	$25,146	$276,604	2.09
242	Major esophageal disorders	11	$21,748	$239,231	46.82
312	Skin graft, except hand, for musculoskeletal & connective tissue diagnoses	11	$98,163	$1,079,798	37.36
316	Hand & wrist procedures	11	$19,274	$212,018	22.73
401	Pituitary & adrenal procedures	11	$62,635	$688,982	57
423	Inborn errors of metabolism	11	$18,126	$199,390	12.82
443	Kidney & urinary tract procedures for nonmalignancy	11	$24,954	$274,498	47.45
446	Urethral & transurethral procedures	11	$29,460	$324,061	53.27
894	HIV w one signif HIV cond or w/o signif related cond	11	$12,188	$134,067	34.09
97	Tonsil & adenoid procedures	10	$23,112	$231,122	23.1
111	Vertigo & other labyrinth disorders	10	$5,989	$59,890	57.3
952	Nonextensive procedure unrelated to principal diagnosis	10	$30,784	$307,843	49
140	Chronic obstructive pulmonary disease	10	$9,392	$93,918	63.9
246	Gastrointestinal vascular insufficiency	10	$18,020	$180,202	52.7
264	Other hepatobiliary, pancreas & abdominal procedures	10	$51,188	$511,883	55.9
421	Malnutrition, failure to thrive & other nutritional disorders	10	$16,720	$167,201	28.4
483	Testes & scrotal procedures	10	$58,375	$583,746	52.9
531	Female reproductive system infections	10	$7,524	$75,242	29.2
640	Neonate birthwt >2499g, normal newborn or neonate w other problem	10	$7,026	$70,264	0
46	Nonspecific CVA & precerebral occlusion w/o infarct	9	$5,827	$52,445	41.11
51	Viral meningitis	9	$12,359	$111,232	17.89
131	Cystic fibrosis - pulmonary disease	9	$36,218	$325,963	21.22
226	Anal procedures	9	$20,263	$182,364	33.56
227	Hernia procedures except inguinal, femoral & umbilical	9	$41,909	$377,184	63.89
681	Other O.R. procedures for lymphatic/hematopoietic/other neoplasms	9	$50,028	$450,249	61.56
773	Opioid abuse & dependence	9	$6,901	$62,109	42.22
110	Ear, nose, mouth, throat, cranial/facial malignancies	8	$17,974	$143,791	52.25
501	Male reproductive system diagnoses except malignancy	8	$21,296	$170,372	42.13
532	Menstrual & other female reproductive system disorders	8	$10,215	$81,721	38.88
544	D&C, aspiration curettage or hysterotomy for obstetric diagnoses	8	$14,835	$118,677	27.5
609	Neonate bwt 1500-2499g w major procedure	8	$183,274	$1,466,190	0
639	Neonate birthwt >2499g w other significant condition	8	$10,114	$80,915	0
694	Lymphatic & other malignancies & neoplasms of uncertain behavior	8	$52,109	$416,875	47.63
630	Neonate birthwt >2499g w major cardiovascular procedure	8	$133,889	$1,071,109	0
262	Cholecystectomy except laparoscopic	7	$45,620	$319,338	72.43
442	Kidney & urinary tract procedures for malignancy	7	$30,527	$213,690	50.14
465	Urinary stones & acquired upper urinary tract obstruction	7	$9,739	$68,173	35.71
774	Cocaine abuse & dependence	7	$12,824	$89,769	46.14

Table 8: Transfers to AMCs by Sending Hospital , CY2013								
Sending Hospital		Receiving Hospital						All
		UMMS		MIEMSS		JHH		
		Source		Source		Source		
		ED	INPT	ED	INPT	ED	INPT	
Provider ID	HOSPITALNAME							
210033	CARROLL COUNTY	114	73	152	5	133	34	511
210011	ST. AGNES	102	75	96	20	109	52	454
210015	FRANKLIN SQUARE	137	75	53	28	88	38	419
210019	PENINSULA REGIONAL	55	63	79	13	140	60	410
210005	FREDERICK MEMORIAL	47	119	57	9	90	79	401
210023	ANNE ARUNDEL	43	66	46	18	131	84	388
210056	GOOD SAMARITAN	137	48	63	14	79	34	375
210001	MERITUS	92	73	59	14	61	24	323
210034	HARBOR	80	63	77	4	55	20	299
210013	BON SECOURS	105	56	74	4	32	25	296
210008	MERCY	104	51	18	8	83	19	283
210012	SINAI	46	44	10	12	80	45	237
210048	HOWARD COUNTY	87	54	73	15	.	.	229
210044	G.B.M.C.	27	26	34	6	67	64	224
210040	NORTHWEST	47	40	28	5	57	41	218
210024	UNION MEMORIAL	57	25	30	7	82	14	215
210039	CALVERT	61	43	16	8	36	15	179
210055	LAUREL REGIONAL	38	40	41	8	24	10	161
210051	DOCTORS COMMUNITY	19	74	17	8	14	21	153
210057	SHADY GROVE	13	35	15	9	34	32	138
210061	ATLANTIC GENERAL	26	47	19	5	31	10	138
210049	UPPER CHESAPEAKE HEALTH	.	.	.	.	108	29	137
210043	BALTIMORE WASHINGTON MEDICAL CENTER	.	.	.	.	101	26	127
210027	WESTERN MARYLAND HEALTH SYSTEM	19	17	12	6	47	26	127
210003	PRINCE GEORGE	31	47	12	9	7	8	114
210004	HOLY CROSS	12	36	7	5	20	20	100
210062	SOUTHERN MARYLAND	19	27	9	8	22	10	95
210032	UNION HOSPITAL OF CECIL COUNT	18	27	7	7	22	6	87
210037	EASTON	.	.	.	.	67	15	82
210016	WASHINGTON ADVENTIST	22	35	6	2	8	8	81
210002	UNIVERSITY OF MARYLAND	.	.	.	.	52	29	81
210028	ST. MARY	24	15	10	3	16	11	79
210088	QUEEN ANNES	23	.	25	.	21	.	69
210018	MONTGOMERY GENERAL	13	14	2	4	18	8	59
210063	UM ST. JOSEPH	.	.	.	.	27	23	50
210009	JOHNS HOPKINS	35	7	6	.	.	.	48
210006	HARFORD	.	.	.	.	30	14	44
210038	UMMC MIDTOWN	.	.	.	.	27	15	42
210035	CHARLES REGIONAL	.	.	.	.	28	10	38
210029	HOPKINS BAYVIEW MED CTR	17	11	2	2	.	.	32
210030	CHESTERTOWN	.	.	.	.	26	2	28
210060	FT. WASHINGTON	3	10	2	2	6	2	25
210010	DORCHESTER	.	.	.	.	18	2	20
210022	SUBURBAN	5	9	2	1	.	.	17
210045	MCCREADY	5	1	2	.	5	.	13
210058	REHAB & ORTHO	.	.	.	.	.	10	10
210333	BOWIE HEALTH	3	.	3	.	3	.	9
210017	GARRETT COUNTY	1	2	1	.	1	1	6
Total		1,687	1,448	1,165	269	2,106	996	7,671

Table 9: CY 2013 and CY 2014 5 Month Trends				
		Calendar Year		% CHANGE
		2013	2014	
		Jan-May	Jan-May	
Number of Cases	Receiving Hospital			
	UMMS	1227	1158	-5.62%
	MIEMSS	615	477	-22.44%
	JHH	1309	1313	0.31%
	Non-AMC	3610	2910	-19.39%
Average Charge	UMMS	$32,346	$37,968	17.38%
	MIEMSS	$37,222	$44,971	20.82%
	JHH	$28,304	$26,032	-8.03%
	Non-AMC	$13,047	$13,036	-0.09%
Total Charge	UMMS	$39,688,623	$43,967,223	10.78%
	MIEMSS	$22,891,474	$21,451,188	-6.29%
	JHH	$37,049,552	$34,179,858	-7.75%
	Non-AMC	$47,099,801	$37,934,418	-19.46%

Based on March-May Preliminary Data 7/31/2014

Table 10: CY 2013 and CY 2014 5-Month Trends by Hospital									
SENDING HOSPITAL NAME	Receiving Hospital								% Total Change
	1_UMMS		2_MIEMSS		3_JHH		Total		
	Jan-May		Jan-May		Jan-May		Jan-May		
	2013	2014	2013	2014	2013	2014	2013	2014	
ST. MARY	10	16	8	6	8	26	26	48	85%
CALVERT	38	38	9	14	14	33	61	85	39%
GARRETT COUNTY	1	2	1	1	1	1	3	4	33%
HARFORD	.	.	.	.	16	21	16	21	31%
CHARLES REGIONAL	.	.	.	.	17	21	17	21	24%
BALTIMORE WASHINGTON MEDICAL CENTER	.	.	.	.	54	71	54	71	31%
JOHNS HOPKINS	15	22	2	.	.	.	17	22	29%
SOUTHERN MARYLAND	12	13	5	4	8	14	25	31	24%
UPPER CHESAPEAKE HEALTH	.	.	.	.	49	60	49	60	22%
MERITUS	65	84	26	26	29	31	120	141	18%
UNIVERSITY OF MARYLAND	.	.	.	.	35	42	35	42	20%
NORTHWEST	29	49	20	16	38	35	87	100	15%
FT. WASHINGTON	4	3	2	4	1	2	7	9	29%
CHESTERTOWN	.	.	.	.	18	19	18	19	6%
ST. AGNES	70	79	44	48	69	66	183	193	5%
WESTERN MARYLAND HEALTH SYSTEM	11	14	7	7	26	24	44	45	2%
BOWIE HEALTH	.	.	3	.	2	.	5	0	0%
HOWARD COUNTY	52	51	35	36	.	.	87	87	0%
FREDERICK MEMORIAL	63	56	28	24	65	72	156	152	-3%
HARBOR	58	61	42	21	29	43	129	125	-3%
CARROLL COUNTY	71	62	65	62	65	73	201	197	-2%
QUEEN ANNES	7	9	8	8	13	10	28	27	-4%
UM ST. JOSEPH	.	.	.	.	21	20	21	20	-5%
PRINCE GEORGE	28	26	7	2	4	10	39	38	-3%
ANNE ARUNDEL	45	43	24	29	106	93	175	165	-6%
UNION HOSPITAL OF CECIL COUNT	22	18	6	2	9	14	37	34	-8%
EASTON	.	.	.	.	43	39	43	39	-9%
FRANKLIN SQUARE	100	88	33	20	50	58	183	166	-9%
MERCY	64	48	9	10	36	40	109	98	-10%
WASHINGTON ADVENTIST	24	22	4	3	9	7	37	32	-14%
PENINSULA REGIONAL	43	36	39	20	90	93	172	149	-13%
SHADY GROVE	23	31	11	7	34	20	68	58	-15%
G.B.M.C.	18	23	18	6	56	48	92	77	-16%
LAUREL REGIONAL	30	31	24	17	12	8	66	56	-15%
SINAI	42	37	8	10	55	40	105	87	-17%
DOCTORS COMMUNITY	31	20	9	11	19	15	59	46	-22%
GOOD SAMARITAN	68	50	36	23	51	44	155	117	-25%
REHAB & ORTHO	.	.	.	.	4	3	4	3	-25%
MONTGOMERY GENERAL	16	7	6	1	12	16	34	24	-29%
HOPKINS BAYVIEW MED CTR	12	9	2	1	.	.	14	10	-29%
SUBURBAN	6	5	1	.	.	.	7	5	-29%
BON SECOURS	69	54	38	16	26	23	133	93	-30%
UNION MEMORIAL	26	26	18	12	50	26	94	64	-32%
UMMC MIDTOWN	.	.	.	.	18	12	18	12	-33%
ATLANTIC GENERAL	29	16	10	7	19	7	58	30	-48%
HOLY CROSS	23	9	6	3	14	9	43	21	-51%
DORCHESTER	.	.	.	.	10	4	10	4	-60%
MCCREADY	2	.	1	.	4	.	7	0	-100%
Total	**1227**	**1158**	**615**	**477**	**1309**	**1313**	**3151**	**2948**	**-6.4%**

Table 11: AMC Transfers by Product Line (HSCRC revised)				
Product Line	Total charges			Average Age
	N	Mean	Sum	
Neurology	1072	$17,608	$18,876,257	47.5
Gastroenterology	987	$14,712	$14,520,854	45.19
General Surgery	715	$49,745	$35,567,517	44.7
Pulmonary	642	$21,934	$14,081,457	25.05
Orthopedic Surgery	562	$43,711	$24,565,366	44.57
Infectious Disease	505	$30,327	$15,315,083	44.05
Neurological Surgery	294	$70,985	$20,869,664	48.47
General Medicine	220	$11,773	$2,590,059	24.65
Orthopedics	218	$9,486	$2,067,951	51.71
Oncology	217	$28,675	$6,222,439	59.43
Nephrology	207	$17,374	$3,596,420	45.46
Ventilator Support	171	$213,776	$36,555,635	52.05
Trauma	140	$40,481	$5,667,279	52.21
ENT Surgery	139	$24,004	$3,336,513	32.09
Hematology	136	$23,429	$3,186,403	30.1
Otolaryngology	125	$8,759	$1,094,928	28.82
Neonatology	125	$97,768	$12,221,014	0
Injuries/complic. of prior care	120	$23,441	$2,812,865	51.93
Dermatology	117	$9,001	$1,053,098	37.16
Other Obstetrics	116	$8,282	$960,716	26.86
Rheumatology	110	$16,909	$1,859,980	39.32
Endocrinology	94	$15,889	$1,493,583	41.11
Diabetes	80	$9,210	$736,768	21.75
Spinal Surgery	74	$70,147	$5,190,882	57.59
Ophthalmology	71	$8,636	$613,135	40.48
Dental	64	$6,531	$417,964	36.52
Urological Surgery	56	$38,176	$2,137,877	47.2
HIV	54	$26,458	$1,428,732	42.35
Thoracic Surgery	53	$61,459	$3,257,317	43.21
Substance Abuse	42	$11,230	$471,669	43.93
Obstetrics/Delivery	34	$14,731	$500,861	27.15
Ophthalmologic Surg	31	$25,533	$791,520	39.94
Gynecological Surg	25	$15,966	$399,162	32.92
Gynecology	18	$8,720	$156,963	33.5
Endocrinology Surgery	17	$62,699	$1,065,875	58.41
Urology	15	$15,903	$238,545	39.13
Ungroupable	5	$1,290	$6,452	31.6

Table 12: AMC Transfer Trends by Product Line (HSCRC revised) Jan-May 5-Month Trends									
Product Line	**Number of Transfers**			**Average Charge**			**Total Charge**		
	2013	**2014**	**% Change**	**2013**	**2014**	**% Change**	**2013**	**2014**	**% Change**
Dental	34	7	**-79%**	$7,220	$15,847	119%	$245,487	$110,929	-55%
Dermatology	56	27	**-52%**	$7,421	$11,195	51%	$415,592	$302,255	-27%
HIV	31	17	**-45%**	$26,758	$36,131	35%	$829,504	$614,226	-26%
Ophthalmologic Surg	16	9	**-44%**	$30,644	$27,458	-10%	$490,297	$247,123	-50%
Other Obstetrics	61	35	**-43%**	$10,169	$10,586	4%	$620,316	$370,523	-40%
Gynecology	11	7	**-36%**	$5,646	$14,898	164%	$62,103	$104,287	68%
Orthopedics	91	58	**-36%**	$9,029	$14,570	61%	$821,605	$845,063	3%
Ophthalmology	36	23	**-36%**	$8,465	$8,340	-1%	$304,735	$191,822	-37%
Gynecological Surg	9	6	**-33%**	$19,863	$27,807	40%	$178,771	$166,841	-7%
Injuries/complic. of prior care	58	40	**-31%**	$21,047	$27,211	29%	$1,220,741	$1,088,440	-11%
Otolaryngology	61	44	**-28%**	$8,353	$9,777	17%	$509,539	$430,193	-16%
Neonatology	57	42	**-26%**	$101,238	$56,881	-44%	$5,770,588	$2,388,992	-59%
Rheumatology	33	25	**-24%**	$15,307	$18,739	22%	$505,145	$468,466	-7%
Diabetes	42	32	**-24%**	$7,404	$8,724	18%	$310,958	$279,170	-10%
Obstetrics/Delivery	13	10	**-23%**	$12,435	$31,927	157%	$161,658	$319,269	97%
Endocrinology Surgery	5	4	**-20%**	$57,325	$20,283	-65%	$286,627	$81,130	-72%
ENT Surgery	54	50	**-7%**	$26,276	$25,990	-1%	$1,418,886	$1,299,477	-8%
Gastroenterology	404	375	**-7%**	$13,548	$16,233	20%	$5,473,475	$6,087,480	11%
Neurology	445	417	**-6%**	$17,657	$17,083	-3%	$7,857,237	$7,123,448	-9%
Ventilator Support	77	73	**-5%**	$213,169	$235,058	10%	$16,413,986	$17,159,210	5%
Infectious Disease	184	179	**-3%**	$30,097	$28,437	-6%	$5,537,840	$5,090,155	-8%
Neurological Surgery	122	119	**-2%**	$69,015	$64,684	-6%	$8,419,847	$7,697,404	-9%
Orthopedic Surgery	210	208	**-1%**	$46,538	$47,029	1%	$9,773,054	$9,782,039	0%
Endocrinology	36	36	**0%**	$11,852	$15,929	34%	$426,655	$573,431	34%
Pulmonary	258	264	**2%**	$20,102	$24,084	20%	$5,186,293	$6,358,043	23%
Urological Surgery	26	27	**4%**	$35,791	$44,683	25%	$930,562	$1,206,438	30%
Nephrology	90	95	**6%**	$16,850	$24,839	47%	$1,516,475	$2,359,710	56%
General Surgery	287	304	**6%**	$46,529	$50,769	9%	$13,353,738	$15,433,866	16%
General Medicine	90	96	**7%**	$10,126	$11,279	11%	$911,366	$1,082,831	19%
Trauma	50	54	**8%**	$50,663	$40,460	-20%	$2,533,135	$2,184,825	-14%
Thoracic Surgery	20	22	**10%**	$54,681	$52,699	-4%	$1,093,613	$1,159,369	6%
Substance Abuse	17	19	**12%**	$10,734	$6,770	-37%	$182,481	$128,629	-30%
Hematology	49	56	**14%**	$14,115	$28,566	102%	$691,619	$1,599,722	131%
Spinal Surgery	27	31	**15%**	$74,129	$64,346	-13%	$2,001,492	$1,994,728	0%
Oncology	86	99	**15%**	$35,636	$29,131	-18%	$3,064,698	$2,883,946	-6%
Urology	6	7	**17%**	$20,567	$9,253	-55%	$123,404	$64,773	-48%
Ungroupable	.	**21**		.	$7,577		.	$159,117	

Appendix- Categorical Cases Definitions

1. Categorical Case Exclusions
    1.1. Solid Organ Transplants APR DRGS = 001, 002, 003, 006 or 440
    (any procedure = 5280, 5282 or 5283 or any procedure = 5280, 5282, 5283, 4100, 4101, 4102, 4103, 4104, 4105, 4106, 4107, 4108 or 3751 Heart Transplantation 4109 or 336 or 3350 , 3351, 3352, 5569, 5561, 5281, 5051, or 5059)
    1.2. Melodysplastic - Any Diagnosis = 2387 for Johns Hopkins Oncology Center
    1.3. JHU Pediatric Burn Cases (Age < 18) - 3rd Degree Burns
    1.4. Johns Hopkins and University Oncology Center
        1.4.1. Transplant Cases (Reserve Flag = 1)
        1.4.2. Research Cases (Reserve Flag = 2)
        1.4.3. Hematological Cases (Reserve Flag = 3)
        1.4.4. Transfer in Cases (Reserve Flag = 4)

Summary of GBR Transfer Adjustment

Payment Models Work Group Meeting

Oct 1, 2014

HSCRC
Health Services Cost Review Commission

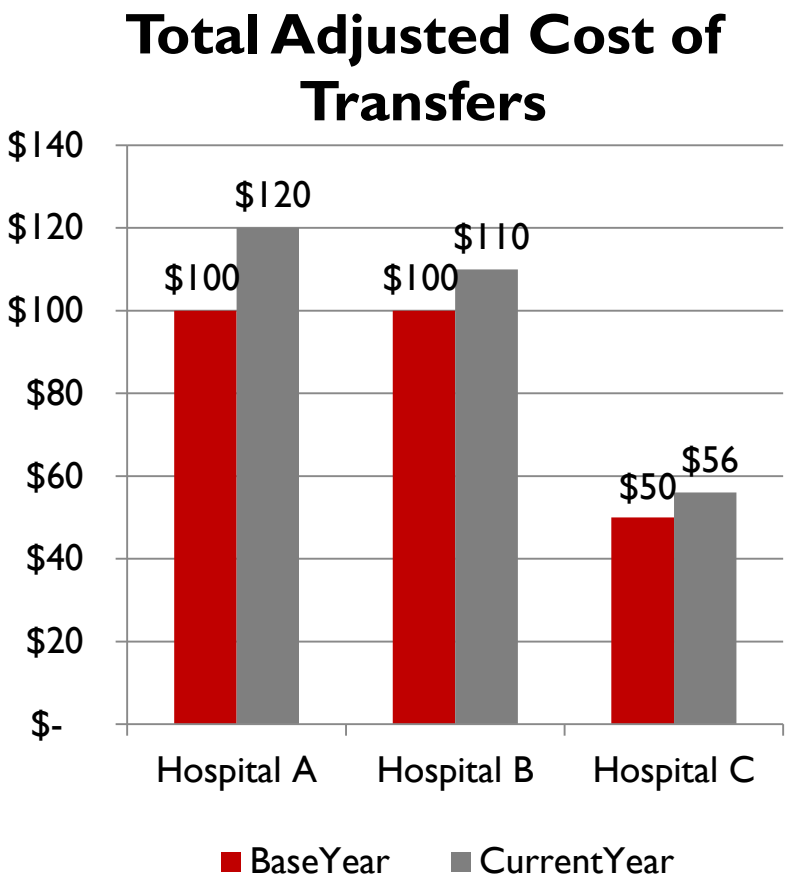
GBR Transfer Adjustments Recap

- Payment Models Work Group and Transfer Subgroup meetings in June, July and August
- Focused on ensuring access to care for complex cases and patient protections
- Worked to develop transfer cases payment adjustments to GBR revenues based on variation from the baseline transfer rates to academic medical centers (AMCs)

Transfer Definitions

- Transfers to University of Maryland Medical Center (UMMC) and Johns Hopkins University Hospital (JHH)
- Transfer from Inpatient and Emergency Departments
- Admission to AMCs within one day
- Exclusions
  - Categorical cases (transplants, research, burn etc)
  - Out of state patients
  - MDC-5 (Cardiology and cardiac surgery), psychiatric DRGs, and Rehabilitation DRGs

Transfer Adjustment Example



Situation:

- **Hospital A:** 20% Increase, and at least 10 additional cases
- **Hospital B:** 10% increase and at least 10 additional cases
- **Hospital C**: 12% increase, 6 additional cases

Proposed Adjustment:

If State-wide Transfers ≤ 5%

- **Hospital A:** 20%-10%=10% ; -$10
- **Hospital B**: 10%-10% = No Adjustments
- **Hospital C**: No Adjustments

If State-wide Transfers > 5%

- **Hospital A**: 20%-5%=15% ; -$15
- **Hospital B:** 10%-5%=5% ; -$5
- **Hospital C**: No Adjustments

HSCRC
Health Services Cost Review Commission

Average Adjusted Transfer Cost

- Average Total Charge of Transfer Cases to UMMC and to JHH combined
  - Separate cost calculations for transfers from ED and inpatient using base year data
  - Price Update
  - 50% Variable Cost Factor

Measurement and Data Validation

- Case level data has been sent to 22 sending hospitals and 2 AMCs
  - Expanding the window from same day to next day increased the false positives
    - 2% disagreement from sending hospitals (1% if we exclude Sinai Hospital which has 23%)
    - UMMC sent 30% additional cases (1,387), without any exclusions
    - JHH did not send case level results
  - Algorithm is verified, remaining issues with missing CRISP-IDs and hospital records of transfers

Next Steps

- Close look at CRISP-ID
- Update the trends for Jan-June 2014 time period
- Consider this policy in relation to the Market Share Analysis

Market Share Payment Adjustments under Global Revenue Models

Introduction

Market Share Adjustments (MSAs) are part of a much broader set of tools that link global budgets to populations and patients under the State's new hospital payment model. MSAs can play a role in ensuring and improving customer service and high quality care by moving revenues when there is a shift of patient volumes between hospitals..

The purpose of MSAs is to provide a basis for increasing or decreasing the Approved Regulated Revenue (ARR) of Maryland hospitals operating under Global Budget rate arrangements to recognize the movement of patients. Ideally, MSAs would also encourage movement of services from low value to high value providers of a service. A Market Share Adjustment under a global budget revenue system is fundamentally different from a volume adjustment. Hospitals under a population-based payment system have a fixed budget for providing services to the population in their service area. By definition, a global budget is not fixed if it is subject to volume adjustments. Therefore it is imperative that market share calculations reflect shifts in market share independent of general volume increases in the market. Additionally, MSAs should not be so sensitive that they respond to random fluctuations in the volume of services at individual hospitals.

In order for an MSA to be consistent with a population-based approach, , it should have certain features such as the following:

- A specified population from which hospitals' market shares will be calculated;
- A defined set of covered services of the MSA ; and
- To the maximum extent practicable each MSA should be at least budget neutral or result in demonstrably higher quality.

The MSA should not hinder global budget incentives to eliminate marginal services that do not add value or are unnecessary or to reduce utilization resulting from better care. Therefore, the State's MSA approach must focus on accounting for appropriate reductions in utilization without applying a MSA and at the same time adjusting Global budgets for shifts in volumes between hospitals under the MSA. The MSA is just one mechanism focused on utilization changes. The global budget agreements also contain provisions focused on assuring the provision of needed services.

The basis for distinguishing between desirable and undesirable utilization changes is the Triple Aim of the new system: to improve health care outcomes, enhance patient experiences, and control costs. The MSA, together with other global budget agreement provisions and HSCRC policies, will need to focus on MSA adjustments that support the Triple Aim. Examples of reductions in utilization that help achieve the Triple Aim are those that result from:

- Fewer hospital-acquired conditions;
- Fewer rehospitalizations;
- Fewer initial hospitalizations for ambulatory care sensitive conditions;
- Fewer initial hospitalizations for conditions that can be treated equally effectively in other settings at lower cost; and
- Providing services in a lower cost hospital without compromising patient care.

Examples of reductions in utilization that undermine the achievement of the Triple Aim are those that result from:

- Marketing strategies, inducements in physician contracts, limiting availability of emergency room care, or other measures designed to prompt patients with unprofitable service needs to seek care elsewhere;
- Reducing volume or capacity to the point of creating long waiting lists or delays;
- Underinvesting in new technology or modes of care proven to be efficient ways of improving patient health, safety or quality;
- Structuring a hospital's overall service mix to reduce the volume of non-profitable services below the amount needed by patients within the hospital's service area;
- Reducing total level of a hospital's medical staff or the quality of affiliated providers to the point of compromising patient care; or
- Undermining patient care by providing care in settings outside the hospital when patients would be better served within the hospital; providing lower-cost services within the hospital when more costly services would better meet patient needs; or delaying the onset of hospitalization for particular patients in ways that place health at risk.

Similarly, the MSA together with other mechanisms and policies must distinguish between increases in utilization at any given hospital that should be recognized and rewarded and those that should not be recognized or rewarded. For example, a hospital should receive an increase in its Approved Regulated Revenue (ARR) is when organizations such as Health Maintenance Organizations, Medicaid Managed Care Organizations, Accountable Care Organizations, or Primary Care Medical Homes channels their members from low value to high value hospitals to improve efficiency, cost-effectiveness and quality. Hospitals also should receive an ARR increase in circumstances beyond their control that result in a shift of patient volumes, such as the closure of a service at a particular hospital and resulting relocation of patients receiving that service to another facility, or other discrete and readily identifiable events. On the other hand, increases in volume that are not related to achieving the Triple Aim, such as the result of hospitals pursuing a strategy of acquiring physician practices for increased referrals or a redirection of services to their facilities unrelated to improved value, should not be encouraged.

Guiding Principles

In developing its MSA approach, the HSCRC should follow certain guiding principles. These include:

1. **Provide clear incentives**

   1.1. Promote the three part aim
   1.2. Emphasize value, recognizing that this concept will take some time to develop
   1.3. Promote investments in care coordination
   1.4. Encourage appropriate utilization and delivery of high quality care
   1.5. Avoid paying twice for the same service

2. **Reinforce the maintenance of services to the community.**

   2.1. Encourage competition to promote responsive provision of services
   2.2. Competition should be based on value
   2.3. Revenue should generally follow the patient
   2.4. Support strategies pursued by entities such as ACOs, PCMH, MCOs seeking to direct patients to low cost, high quality settings.

3. **Changes constituting market share shifts should be clearly defined.**

   3.1. Volume increase alone is not a market share change.
   3.2. Market share shifts should be evaluated in combination with the overall volume trend to ensure that shift has occurred, rather than volume growth.
   3.3. If one hospital has higher volume and other hospitals serving the same area do not have corresponding declines in volume, a market share shift should not be awarded.
   3.4. Increases in the global budget of one hospital should be funded fully by the decrease in other hospitals' budgets.
   3.5. Market share changes should reflect services provided by the hospital.
   3.6. Substantial reductions at a facility may result in a global budget reduction even if not accompanied by shift to other facilities in service area. (Investigate shift to unregulated, limitations on types of procedures).
   3.7. Closures of services or discrete readily identifiable events should result in a global budget adjustment and a market share adjustment as needed.
   3.8. Market shifts in Potentially Avoidable Utilization (PAU) should be evaluated separately.[1]

<u>To be reviewed after methodology development for calculating shift</u>

[1] There are limited circumstances where HSCRC might want to recognize a market shift in PAUs. For example, if an HMO moved all of its patients from one facility to another, there may be an appropriate shift in revenue for some level of PAU cases. Similarly, if a PCMH changed its hospital affiliation, there may be a shift in PAU volumes from one facility to another.

1. Adjust budgets for substantial shift in market share.
2. Use corridors to avoid shifts for minor variations.
3. Adjust budgets gradually to reflect the fixed nature of capital and other costs
4. Timing of market share adjustments
5. Relative value of market shifts

Market Share Shift Calculation

Based on the principles listed above:

- Both volume and market share at a hospital must have increased to receive a positive market share adjustment.
- Both expected volume and market share at a hospital must have decreased to receive a negative market share adjustment.

The developed algorithms applied should compare changes in volume at Hospital ABC to net change in volume for the other hospitals serving the market.

Hospital ABC for Service Area	Aggregate of Other Hospitals for Service Area	Market Share Adj. for ABC
Volume Increase	Volume Increase	No
Volume Decrease	Volume Decrease	No
Volume Increase	Volume Decrease	Yes - Increase ABC Increase > Absolute Value of Decrease at Other Hospitals: Shift = Decrease at Other Hospitals ABC Increase < Absolute value of Decrease at Other Hospitals: Shift = ABC Increase
Volume Decrease	Volume Increase	Yes – Decrease Absolute Value of ABC Decrease > Increase at Other Hospitals: Shift = Increase at Other Hospitals Absolute Value of ABC Decrease < Absolute value of Increase at Other Hospitals: Shift = ABC Decrease