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Department of Health and Mental Hygiene

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510th Meeting of The Health Services Cost Review Commission
July 9, 2014

Executive Session
11:30 a.m.

1. **Administrative Issues**

Post-meeting Documents
Public Session
1:00 p.m.

1. **Review of the Minutes from the Executive Session and Public Meeting on June 11, 2014**
2. **Executive Director's Report**
   a. **New Model Monitoring**
   b. **Report of the Data and Infrastructure Work Group**
   c. **Report of the Performance Measurement Work Group**
   d. **Work Group Plan July- December**
3. **Presentation on Care Management / Coordination Strategies and Demonstrations**
4. **Docket Status – Cases Closed – None**
5. **Docket Status – Cases Open**
   2248N Baltimore-Washington Medical Center
   2250A University of Maryland Medical Center
   2251A MedStar Health
   2252A Med Star Health
   2253N Fort Washington Medical Center
6. **Report on Global Budget Contracts and FY 15 Changes**
7. **Final Recommendation on Revisions to the Relative Value Units Scale for Laboratory Services**
8. **Legal Report**
9. **Hearing and Meeting Schedule**

Executive Session Minutes
of the
Health Services Cost Review Commission

June 11, 2014

Upon motion made, Chairman Colmers called the Executive Session to order at 11:39 a.m.

The Executive Session was held under the authority of Section 10-508 of the State-Government Article.

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

In attendance representing staff were Donna Kinzer, David Romans, Steve Ports, Jerry Schmith, Ellen Englert, and Dennis Phelps.

Also attending were Leslie Schulman and Stan Lustman, Commission counsel.

Item One

Donna Kinzer, Executive Director, updated the Commission on the status of Global Budget negotiations. Ms. Kinzer reviewed the development of Global Budgets for FY 2014 and estimates for CY 2014.

Item Two

Ms. Kinzer discussed the standard Global Budget contract as well as hospital specific clauses.

Item Three

The Commission commended Ms. Kinzer and staff on their impressive accomplishment in negotiating Global Budgets to date and on keeping the Commission well informed of their progress.

Item Four

The Commission approved the standards and guidelines for the purpose of granting performance bonuses to executive staff.

The Executive Session was adjourned at 1:09 p.m.

MINUTES OF THE
509th MEETING OF THE
HEALTH SERVICES COST REVIEW COMMISSION

June 11, 2014

Chairman John Colmers called the meeting to order at 1:13 p.m. Commissioners George H. Bone, M.D., Stephen F. Jencks, M.D., M.P.H., Jack C. Keane, Bernadette C. Loftus, M.D., and Tom Mullen were in attendance.

REPORT OF THE JUNE 11, 2014 EXECUTIVE SESSION

Dennis Phelps, Associate Director-Audit & Compliance, summarized the minutes of the June 11, 2014 Executive Session.

ITEM I
REVIEW OF THE MINUTES FROM MAY 14, 2014 EXECUTIVE SESSION AND PUBLIC MEETING

The Commission voted unanimously to approve the minutes of the May 14, 2014 Executive Session and Public Meeting.

ITEM II
EXECUTIVE DIRECTOR'S REPORT

Ms. Donna Kinzer, Executive Director, stated that Monitoring Maryland Performance (MMP) for the new All-Payer Model for the month of April will focus on fiscal year (July 1 through June 30) as well as calendar year results.

Ms. Kinzer reported that for the ten months ended April 30, 2014, total gross revenue increased by 2.83% over the same period in FY 2013. Total gross revenue for Maryland residents increased by 2.73%. This translates to a per capita growth of 2.0%. Gross revenue for non-Maryland residents increased 3.92%.

Ms. Kinzer reported that for the four months of the calendar year ended April 30, 2014, total gross revenue increased by 1.74%, over the same period in FY 2013. Total gross revenue for Maryland residents increased by 2.06%; this translates to a per capita growth of 1.35%. Gross revenue for non-Maryland residents decreased by 1.62%.

Ms. Kinzer noted that Staff is evaluating the reporting of Medicare revenue and whether to include Medicare Advantage in evaluating results. Staff is reviewing both categories (Medicare Advantage and Medicare Fee-For-Service), as staff is not satisfied with the distinction in the data. The data are under audit, and staff will continue to evaluate the results. In addition, Staff is investigating some hospital specific variation in Medicare data and intends to provide Medicare

trends at the July Commission meeting.

The Maryland Department of Planning projects population growth for 2014 of .71% and 3.41% for over age 65.

According to Ms. Kinzer, for the first ten months of fiscal year 2014, the unaudited average operating profit for acute hospitals was 2.15%; total profit margin for the period was 4.50%. The median hospital profit was 2.79%, with a distribution of 0.49% in the 25th percentile and 5.97% in the 75th percentile.

Dr. Alison Schuster , Associate Director Data & Research, presented a quality report update on the Maryland Hospital Acquired Conditions program based upon Potentially Preventable Complications (PPCs) data on discharges through April 2014 and readmissions data on discharges through March 2014 (plus 30 days in April 2014 to identify readmissions).

Potentially Preventable Conditions

- The All-Payer PPC observed to expected ratio was slightly higher than 1% in April 2014 compared to April 2013; however, the fiscal year and calendar year to date PPC ratios were lower by 16.4% and 9.69 % respectively in April 2014 compared to April 2013.
- The Medicare Fee For Service (FFS) PPC observed to expected ratio was 3.72% lower in April 2014 compared to April 2013, and the fiscal and calendar year to date PPC ratios were lower by 20.65% and 14.08% respectively in April 2014 compared to April 2013.
- These preliminary PPC results indicate that hospitals are on track for achieving the annual 6.89% PPC reduction required by CMMI to avoid a corrective action plan.

Readmissions

- The All-Payer unadjusted readmission rate decreased by 7.42% (6.08% risk adjusted) in March 2014 compared to March 2013. The fiscal year and calendar year to date rates were lower by 2.09% and 3.69% respectively in April 2014 compared to April 2013.
- The Medicare unadjusted readmission rates decreased by 5.86% for FFS, and 5.44% for FFS and Medicare Advantage (MA) in March 2014 compared to March 2013. The fiscal year and calendar year to date numbers were lower for Medicare FFS, 1.94% and .76% respectively.
- Based on the New-Payer Model, hospitals must reduce Maryland's readmission rate to or below the national Medicare readmission rate by 2018. The Readmission Reduction incentive program has set the goals for hospitals to reduce their risk adjusted readmission rate by 6.76% during CY2014 compared to CY2013. Currently, only 16 out of 46 hospitals have reduced their risk adjusted rate by more than 6.76%.

Per Ms. Kinzer, Staff focused on the following implementation activities last month:

- Work group meetings

- Preparation of recommendations on uncompensated care, balanced update, and shared savings.

- Completing rate orders and agreements for global budgets.

- Preparing updates to the demographic adjustment calculations and collecting data needed to prepare rate updates for July.

As for the month of June, Staff will be focusing on:

- Continuing implementation of global budgets and planning for July 1 update.

- Global budgets and CPC monitoring.

- Continuing the development of monitoring for both the All-Payer and Medicare requirements.

- Preparing data analysis to calculate possible adjustments to global budgets for changes in transfers to Johns Hopkins Hospital and University of Maryland Medical Center.

- Preparing data analysis to develop approaches for market share adjustments.

- Developing additional implementation planning.

ITEM III
REPORT OF THE PHYSICIAN ALIGNMENT AND ENGAGEMENT WORK GROUP

Mr. Steve Ports, Principal Deputy Director Policy and Operations, presented an update on the status of the Physician Alignment and Engagement work group (See "Physician Alignment and Engagement Update" on the HSCRC website).

ITEM IV
DOCKET STATUS CASES CLOSED

2249A- University of Maryland Medical Center

ITEM V
DOCKET STATUS CASES OPEN

2248N- Baltimore Washington Medical Center

ITEM VI
FINAL RECOMMENDATION ON UNCOMPENSATED CARE POLICY

Ms. Kinzer presented Staff's final recommendation on Uncompensated Care Policy. (See "HSCRC Final: Report on Uncompensated Care Policy Recommendations" on the HSCRC website)

Staff presented the following final recommendations for the HSCRC's Uncompensated Care Policy for FY 2015:

1. That the uncompensated care provision in rates be reduced from 6.86% to 6.15% effective July 1, 2014;
2. That uncompensated care levels continue to be monitored for further potential reductions for FY 2016 or sooner if warranted.
3. That the regression formula be changed from current model as follows:
    - Use the Five Variable Model described in this report;
    - Combine the results of the Five Variable Model with two years of historical data to more closely reflect current trends in uncompensated care. This process will need to be modified next year as a result of significant changes in bad debt levels;
    - Subtract the Primary Adult Care percentage of FY 2013 charges from the modeled uncompensated care result for each hospital to derive its final percentage for determining its contribution or withdrawal from the uncompensated care pool.
4. That the Charity Care Adjustment be suspended indefinitely and not be reinstituted in 2015 rates;
5. That data be collected on write-offs to guide future development of uncompensated care regression models and uncompensated care policies;
6. That data to be collected on outpatient denials, in addition to data already collected on inpatient denial, to understand the continuing trends in denials under the All-Payer model; and
7. That a new uncompensated care policy be developed for FY 2016 that reflects the patterns in uncompensated care experience that are observed in FY 2015 and projected for FY 2016.

The Commission voted to approve staff's recommendation. Commissioner Mullen abstained from voting.

ITEM VII
FINAL RECOMMENDATION ON READMISSION SHARED SAVINGS FOR FY 2015

Ms. Kinzer presented Staff's final recommendation for the Readmission Shared Savings Program for FY 2015. (See "HSCRC "Final Recommendation for Shared Savings Program for FY 2015" on the HSCRC website)

According to Ms. Kinzer, the Commission approved a shared savings policy on May 1, 2013, which reduced hospital revenues based on risk-adjusted readmission rates using specifications

set forth in the Admission-Readmission Revenue Constraint Program (ARR). The program was developed to maintain Maryland's exemption from CMS' readmission program and required a reduction of 0.3% of inpatient revenues in the State during FY2014. This final recommendation proposes the continuation of the shared savings policy with no methodology changes.

Staff recommends that the Commission set the value of shared savings amount at 0.4% of permanent revenue in the State for FY 2015.

The Commission voted unanimously to approve staff's recommendation.

ITEM VIII
FINAL RECOMMENDATION ON A BALANCED UPDATE FOR FY 2015

Ms. Kinzer presented Staff's final recommendation from the Payment Model Work Group on the implementation of a balanced update for FY 2015 (See "Update Factors Recommendations for FY 2015" on the HSCRC website).

The final recommendations were:

1. Provide an update for three categories of hospitals and revenues as follows:
    - Revenues under global budgets 2.41%
    - Revenues not under global budgets but subject to Medicare rate setting waiver 1.71%.
    - Revenues for psychiatric hospitals and Mount Washington Pediatric Hospital 2.0% with an additional .3% provided for care coordination and population health infrastructure investments.

2. Establish update factor for a 6 month period to allow for consideration of calendar year performance and unanticipated changes under the new model. Monitor and review results on an ongoing basis and make changes as needed on January 1st.
    - Complete guardrail policy recommendation from workgroup relative to approaches to make adjustments when targets are not being met.

3. Calculate the Medicaid deficit assessment for FY 2015 at the same total amount as FY 2014, and apportion it between hospital funded and rate funded in the same total amounts as FY 2014.

4. Begin the process of working with Medicaid to develop the calculations to determine whether savings are accruing under the new All-Payer model that would allow for a reduction in the Medicaid deficit assessment.

Mike Robbins, Senior Vice President Financial Policy & Advocacy, Maryland Hospital Association, and Camille Bash, Chief Financial Officer and Robin Nelson, Director of Case Management at Doctors Community Hospital, discussed the need for the Commission to provide

greater support for the infrastructure necessary to ensure long-term waiver success. The Commissioners decided to postpone additional infrastructure funding until January, when better information will be available on the first year status of the waiver and the effectiveness of the initial infrastructure funding can be evaluated.

The Commission voted unanimously to approve staff's recommendation.

ITEM IX
FINAL RECOMMENDATION FOR FY 2015 SUPPORT FOR THE MARYLAND PATIENT SAFETY CENTER

Ms. Diane Feeney, Associate Director Quality Initiative, presented Staff's final recommendation for HSCRC financial support of the Maryland Patient Safety Center (MPSC) for FY 2015. (See "HSCRC "Final Recommendation on HSCRC Financial Support of the Maryland Patient Safety Center for FY 2015" on the HSCRC website).

Staff's final recommendations for HSCRC financial support of the Maryland Patient Safety Center for FY 2015 were as follows:

1. HSCRC provide funding support for the MPSC in FY 2015 through an increase in hospital rates in amount of $1,080,000, a $120,000 (10%) reduction from FY 2014;
2. The MPSC establish and maintain reasonable cash reserves;
3. The MPSC continue to aggressively pursue other sources of revenue, including from other provider groups that benefit from the programs of the Center, to help support the Center into the future;
4. MPSC staff continue to develop and conduct its activities to ensure standardization of self-reported data collection;
5. As has been articulated in the last several FY's funding recommendations, funding support in the future should consider:

    - how well the MPSC initiatives fit into a broader statewide plan for patient safety;
    - whether new MPSC revenues should offset HSCRC funding support;
    - how much MPSC has in budgetary reserves;
    - information on patient safety outcomes and the public's return on investment (from HSCRC funding)
    - how MPSC initiatives dovetail with the HSCRC'S payment-related initiatives and priorities, and other relevant patient safety activities.
6. Going forward, HSCRC decrease the dollar amount of support by a minimum of 10% per year. Staff notes the criteria outlined in recommendation #5 are intended to provide rationale for funding decreases greater than 10%, but not less, in subsequent years.

The Commission voted unanimously to approve staff's recommendation.

ITEM X
FINAL RECOMMENDATION ON NURSE SUPPORT PROGRAM II COMPETITIVE INSTITUTIONAL GRANTS

Claudine Williams, Associate Director Policy Analyst, presented Staff's final recommendation for the Nurse Support Program II (NSP II) FY 2015 Competitive Institutional Grants (See "Nurse Support Program II Competitive Grant Review Panel Recommendations for FY 2015").

Staff recommended that the fifteen Competitive Institutional Grants recommended by the NSP II Grant Review Panel be approved for funding by the Commission for FY 2015.

Due to the timing of this review, Staff of the HSCRC and the Maryland Higher Education Commission request that this recommendation be waived from the comment rule so that it may become effective on July 1, 2014.

The Commission voted unanimously to approve staff's request.

ITEM XI
REPORT ON FY 2015 CRISP FUNDING SUPPORT

Mr. Ports presented Staff's update on the FY 2015 HSCRC funding support of the Chesapeake Regional Information System for our Patients (CRISP). (See "HSCRC "Maryland's Statewide Health Information Exchange, the Chesapeake Regional Information System for our Patients: Additional HSCRC Funding for CRISP Reporting Services" on the HSCRC website).

Mr. Ports stated that MHCC and HSCRC staff have reviewed CRISP's request for additional funding to provide support beyond core operations. Based on a recent meeting with CRISP where they detailed additional activities and costs, staff of the two Commissions believes that supporting the additional funding is necessary to meet the goals of the all–payer model. Therefore, staff deems it appropriate to apply a total uniform and broad based assessment in hospital rates in FY 2015 in the amount of $2.5 million, which will include the $1.65 million approved at the May 2014 Commission meeting for core operational support, and $850,000 to support the costs of CRISP reporting services.

However, staff reserves the right, subsequent to reporting its intention to the Commission, to discontinue CRISP reporting services funding during the course of FY 2015 under the following circumstances:

- Staff finds that either the reporting services are not as efficacious, accurate, or timely as anticipated in order to meet the goals of the all-payer model;
- The State determines that a different vendor would be more appropriate to provide these services; or
- If funding from other grants or sources becomes available for these purposes

ITEM XII
DRAFT RECOMMENDATION FOR REVISION TO THE RELATIVE VALUE UNITS SCALE FOR LABORATORY

Chris O'Brien, Chief-Audit & Compliance, requested approval to distribute proposed revisions to the Relative Value Unit (RVU) Scale for Laboratory services to all hospitals for their review and comment.

The Commission voted unanimously to approve staff's recommendation.

ITEM XIII
LEGAL REPORT

Regulations

Final Action

Maryland Health Insurance Plan- COMAR 10.37.10

The purpose of this action is to establish a variable amount of up to 1 percent in lieu of the fixed 1 percent assessed on hospitals to administer the Maryland Health Insurance Plan program.

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

ITEM XIV
HEARING AND MEETING SCHEDULE

July 9, 2014	Time to be determined, 4160 Patterson Avenue HSCRC Conference Room
August 11, 2014	Time to be determined. 4160 Patterson Avenue HSCRC Conference Room

There being no further business, the meeting was adjourned at 2:58 pm.

Executive Director's Report

July 9, 2014

Monitoring Maryland Performance

Since September, the HSCRC staff has been working on the collection of data in new formats for monitoring under the new All-Payer Model. Much of the data is the same as the previous monitoring reports, but we are now also focused on breaking out in-state and out-of-state residents as well as Medicare from All-Payer.

In the new All-Payer Model, we track fiscal year results (July 1 through June 30) as well as calendar year results in multiple focus areas, including:

- The growth in revenue per capita, to ensure that the growth in revenues is at or below the 3.58% per capita requirement.
- A second area of focus is the Medicare savings requirement of $330 million over 5 years, based on the payments made to all hospitals on behalf of Maryland beneficiaries, regardless of regulatory status or hospital location. We will use data from Medicare claims and reports prepared by the Center for Medicare & Medicaid Innovation (CMMI) for this calculation, which we have not yet received.
- Performance on quality indicators, with a particular focus on readmissions and potentially preventable complications.

Caveat: We expect to see revisions in the data. For financial data, if the residency is unknown, we have asked hospitals to report this as a Maryland resident. As corrected data becomes available, there may be reclassifications of revenues and cases from Maryland to out-of-state. Many hospitals are converting revenue systems along with implementation of Electronic Health Records. This may cause some instability in the accuracy of reported data. For quality data, there may be significant revisions between preliminary and final data.

Financial Data (See separate power point presentation.)

Medicare Data (See separate power point presentation.)

Quality Data

For quality reporting, we are using preliminary monthly case mix data, which may change as hospitals correct preliminary coding. Potentially Preventable Complications (PPCs) are measured as part of the Maryland Hospital Acquired Conditions policies of HSCRC using 3M™ Potentially Preventable

Complications (PPC) Grouping Software. We report 30 day, all cause readmissions, with limited exclusions.

Potentially Preventable Complications

We are not including an official update to the Commission on the PPC data for May 2014 as staff found significant differences in the April 2014 Monthly PPC rate from what was first reported for April last month. You may recall, last month, we reported that for all-payer's the PPC ratio in April 2014 was 1% higher compared to April 2013; when we re-calculated the rates using the latest data, the rate was 11.85% lower in April 2014. The staff is currently looking into causes for the change, e.g., whether there are specific hospitals and/or specific PPCs that had large changes. We plan to communicate our findings to the hospitals and emphasize to them that the preliminary monthly data submissions need to be as complete and accurate as possible for monitoring purposes and to ensure Medicare is receiving accurate POA on submitted claims. We recognize that this is a new process for both the hospitals and the staff, and we appreciate the hard work hospitals are performing to complete accelerated and more frequent reporting of data.

Readmissions

Last month, we reported readmissions through March. April data is not yet available.

Implementation Steps for All-Payer Model

Hospital data submission for monitoring: An onsite audit at hospitals of the base period data for the All-Payer test is nearly complete.

Implementation Planning: The Commission and staff are in the process of extending the implementation planning timeline and strategy beyond the initial 6 month timeline, including consideration of input from the Advisory Council and work groups.

Implementation Priorities for June and July:

- Continuing implementation of global budgets and planning for July 1 update
- Focus on global budget monitoring
- Continuing the development of monitoring for both the All-Payer and Medicare requirements.
- Preparing data analysis to calculate possible adjustments to global budgets for changes in transfers to Johns Hopkins Hospital and University of Maryland Medical Center
- Preparing data analysis to develop approaches for market share adjustments
- Developing additional implementation planning
- Meeting regularly with CMMI staff to provide and obtain data needed for monitoring.

Monitoring Maryland Performance

Financial Data

Fiscal and Calendar Year to Date thru May 2014

HSCRC
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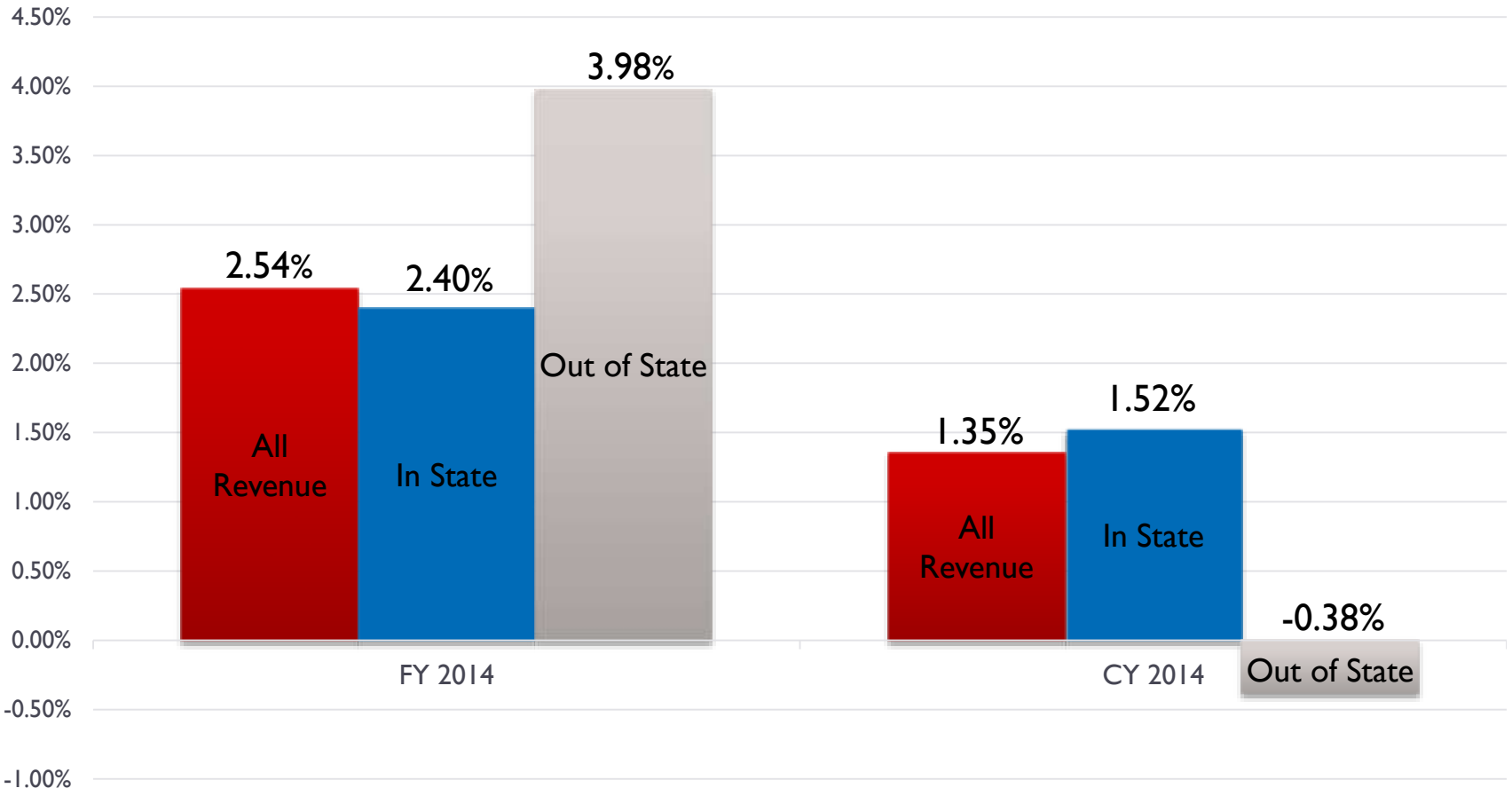
All Payer Gross Revenue Year to Date
Compared to Same Period in Prior Year



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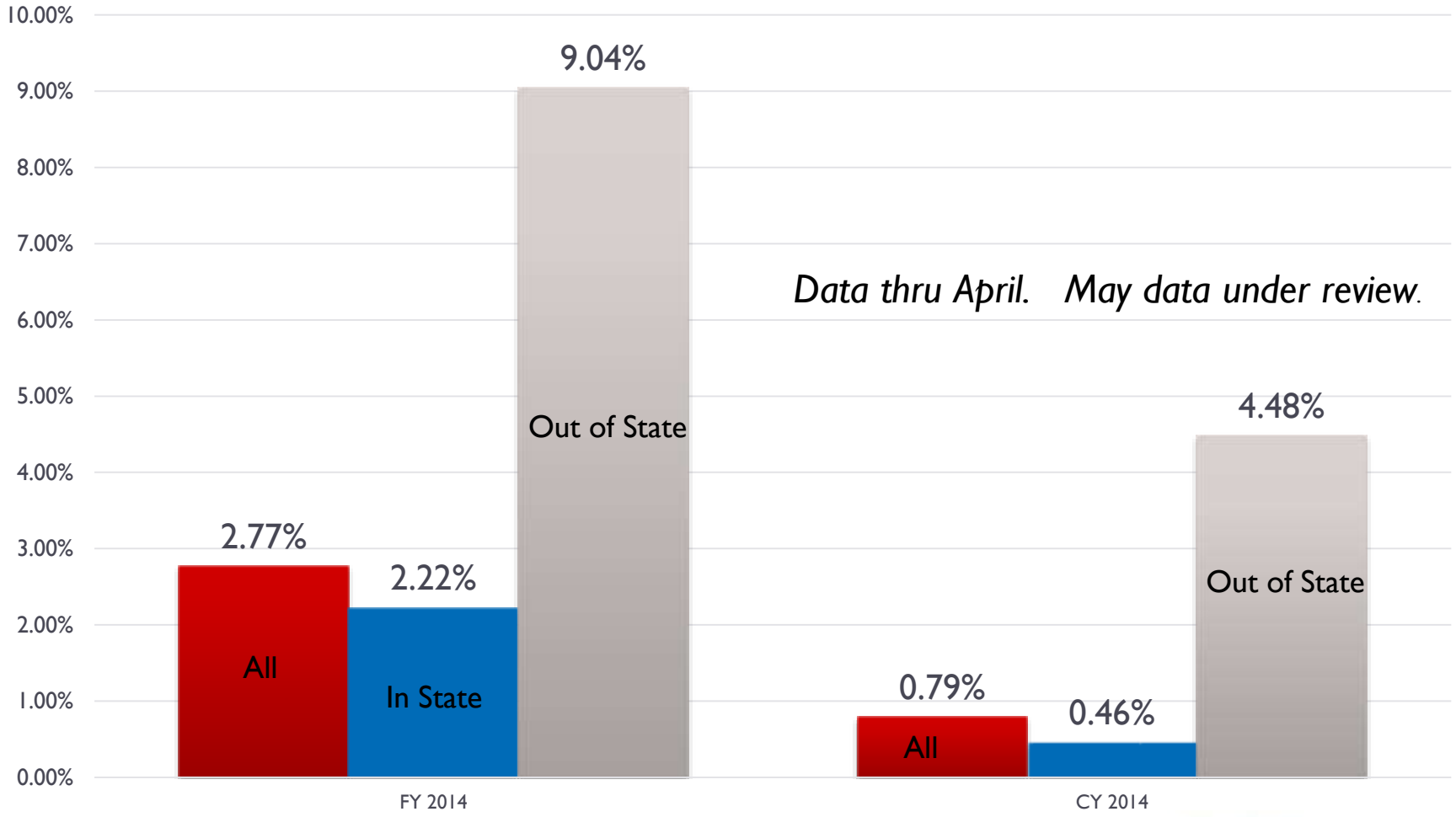
Medicare Fee-for-Service Gross Revenue Year to Date

Compared to Same Period in Prior Year



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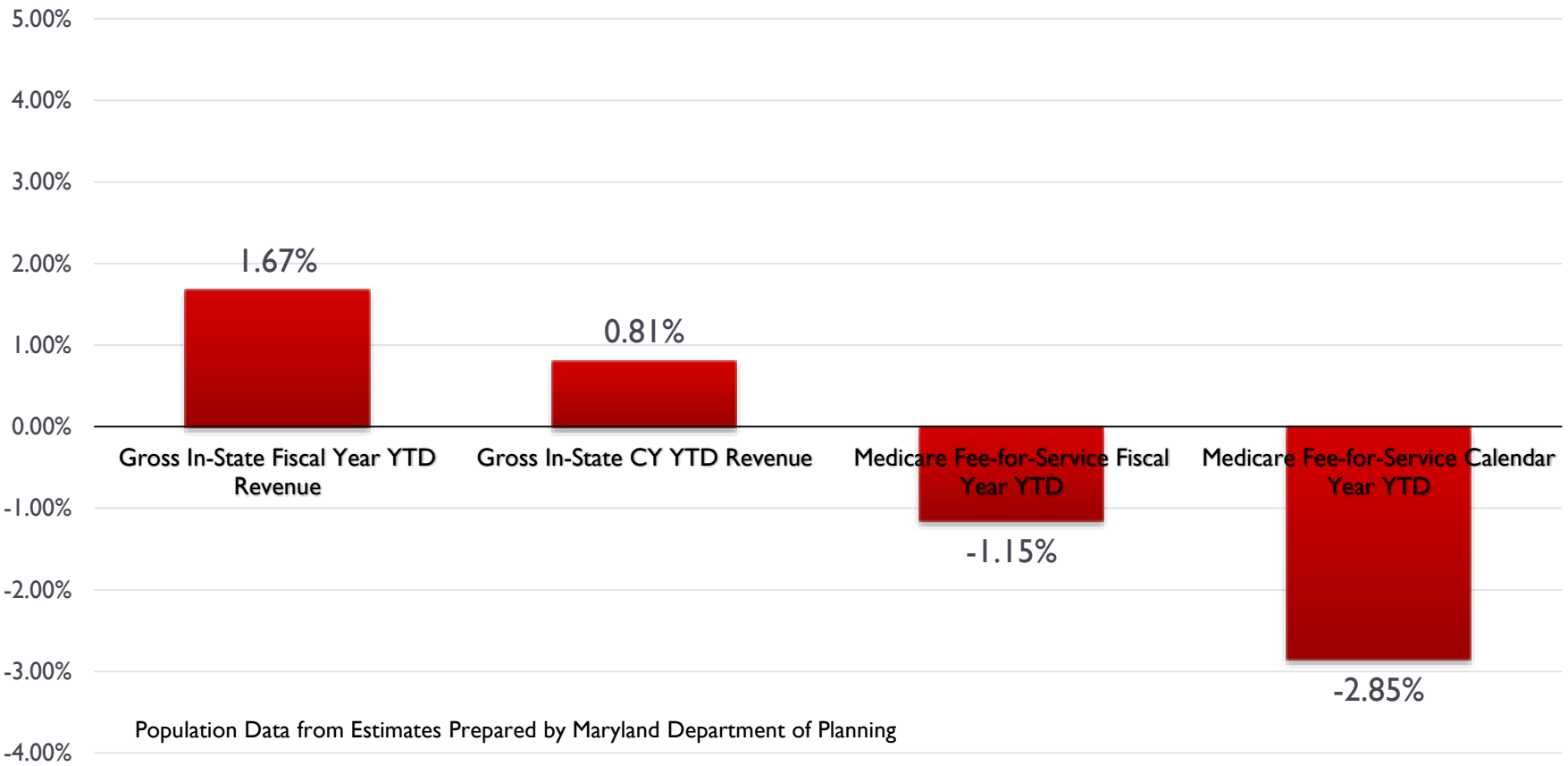
Medicare Data Sharing & Establishment of CY 2013 Baseline

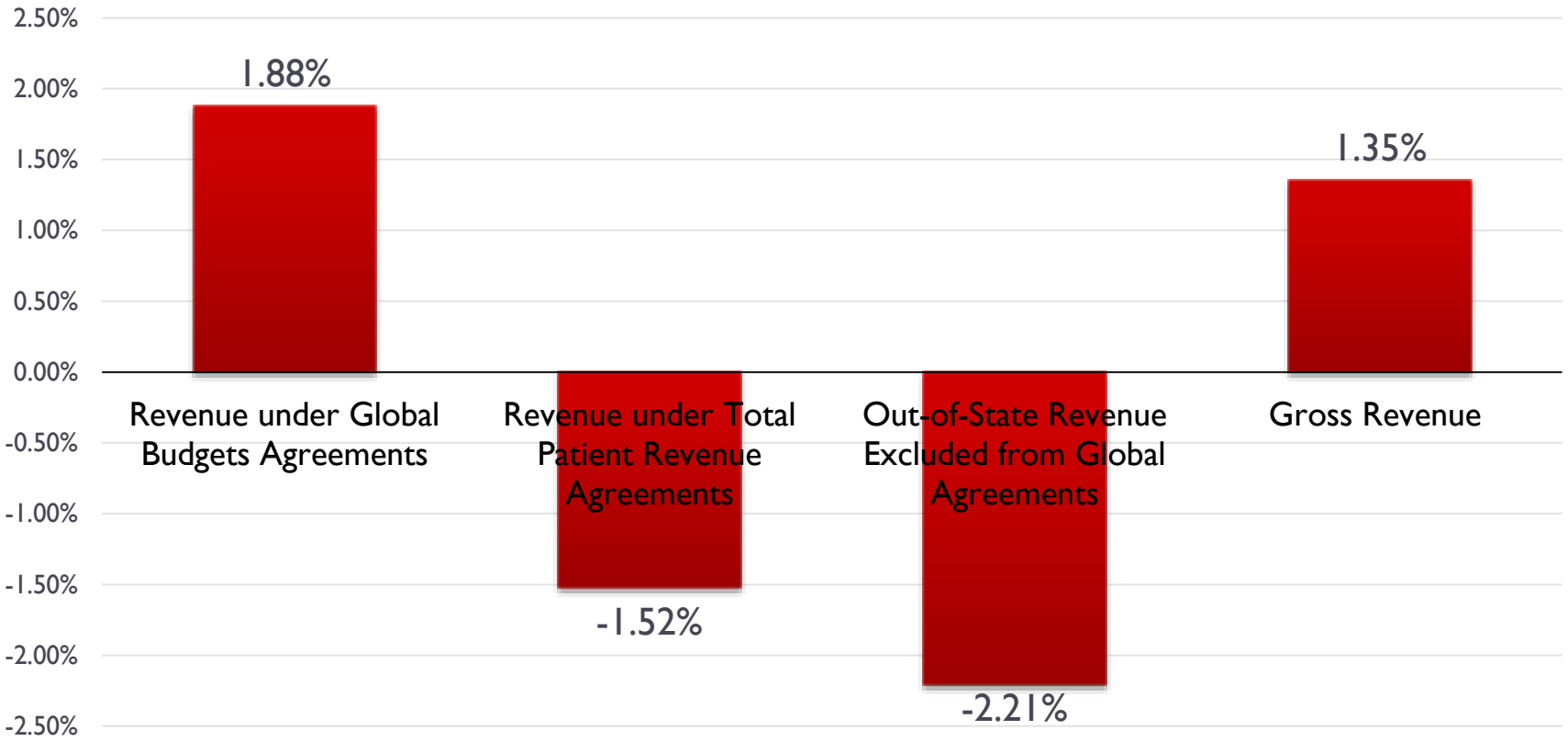
- Staff continue to work with CMMI to obtain the national and State Medicare data necessary to monitor Maryland's compliance with the guardrail to save Medicare $330 million over five years.
  - Current effort is focused on establishing Medicare revenue in the base period (CY 2013).
  - CMMI has provided draft aggregate level data that requires additional scrubbing.
    - Coordination of benefit reporting in HSCRC data may be an issue.
  - CMMI has agreed to expedite the process of providing the patient level Medicare data required to evaluate the aggregate data and begin analyzing CY 2014 data.
    - Limited patient level data expected to be available by mid-July with additional data elements available in late August.

Per Capita Growth Rates
Fiscal Year 2014 and Calendar Year 2014



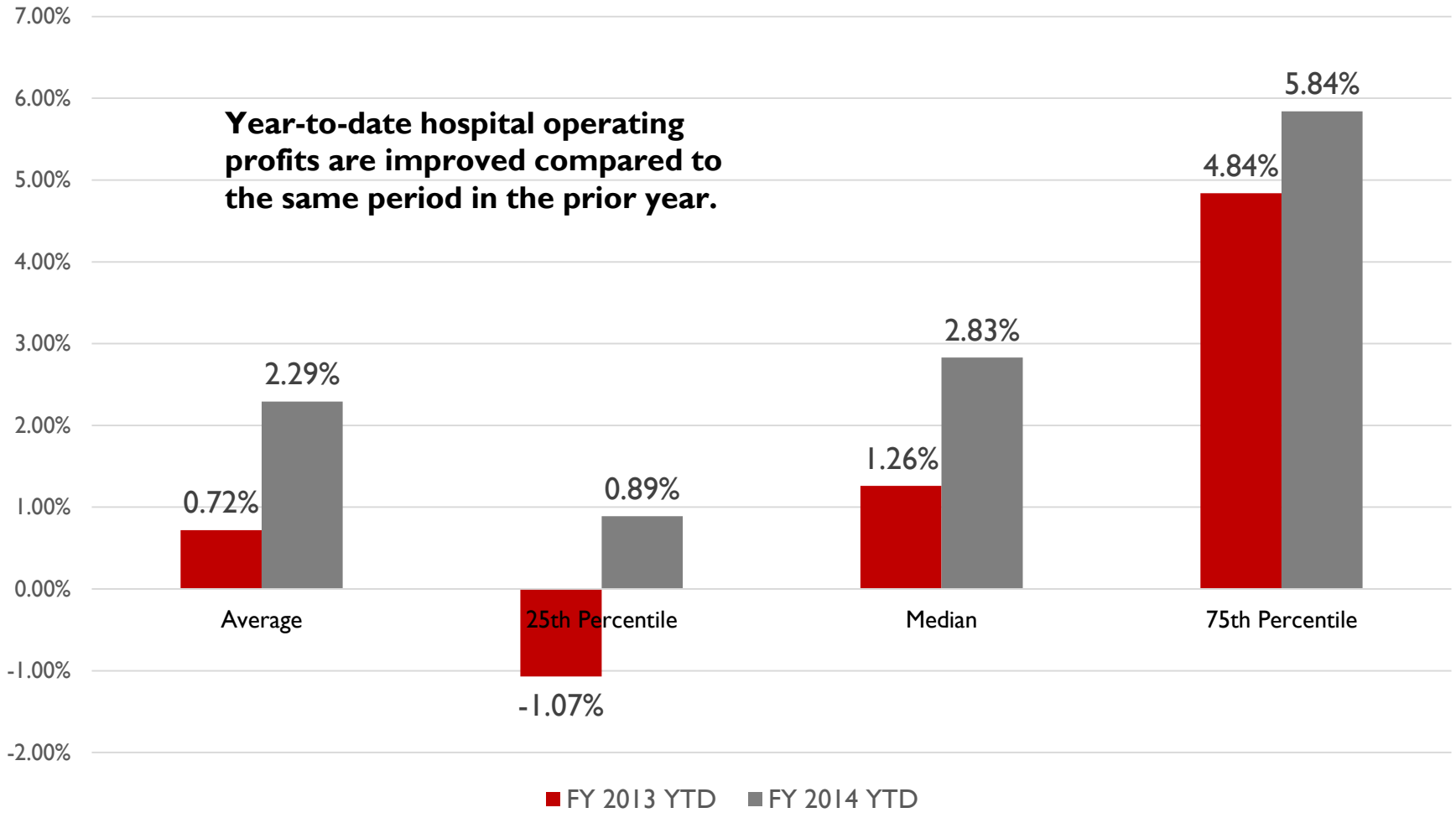
- **Fiscal and Calendar Year trends to date are below All-Payer Model Guardrail for per capita growth.**
- **Medicare data thru April as May data are still under review.**

CY 2014 Gross Hospital Revenue Growth
Compared to Same Period in Prior Year



- **Revenue under Global Budget agreements is up 1.88% consistent with staff estimate of 1.84% for first half of calendar year.**
- **Calendar year-to-date global revenue growth is constrained by adjustments hospitals are making to comply with FY 2014 rate targets.**
- **Revenue under TPR agreements is down due hospitals adjusting charges to comply with FY 2014 targets.**

Operating Profits: Fiscal Year-to-Date (July through May)



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Purpose of Monitoring Maryland Performance

Evaluate Maryland's performance against All-Payer Model requirements:

- **All-Payer total hospital per capita revenue growth ceiling** for Maryland residents tied to long term state economic growth (GSP) per capita
  - 3.58% annual growth rate
- **Medicare payment savings** for Maryland beneficiaries compared to dynamic national trend. Minimum of $330 million in savings over 5 years
- **Patient and population centered-measures** and targets to promote population health improvement
  - Medicare readmission reductions to national average
  - 30% reduction in preventable conditions under Maryland's Hospital Acquired Condition program (MHAC) over a 5 year period
  - Many other quality improvement targets

Data Caveats

- Data revisions are expected.
- For financial data if residency is unknown, hospitals report this as a Maryland resident. As more data becomes available, there may be shifts from Maryland to out-of-state.
- Many hospitals are converting revenue systems along with implementation of Electronic Health Records. This may cause some instability in the accuracy of reported data. As a result, HSCRC staff will monitor total revenue as well as the split of in state and out of state revenues.
- Medicare financial data are through April rather than May as additional data scrubbing for May is required to ensure Medicare/Non-Medicare and In-State/Out-of-State splits are recorded correctly.
- Per capita calculations rely on Maryland Department of Planning projections of population growth of .71% and 3.41% age over 65, used as a proxy for growth in Medicare beneficiaries.

Data and Infrastructure Work Group Report to the Commission:

Recommendations on Data Infrastructure to Support Care Coordination

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Health Services Cost Review Commission

4160 Patterson Avenue Baltimore, MD 21215

(410) 764-2605

July 9, 2014

This document contains recommendations from the Data and Infrastructure Work Group for addressing the data infrastructure needs for care coordination. The recommendations in this report are for discussion purposes and do not require formal action by the Commission.

Introduction

Beginning January 1, 2014, the State of Maryland entered into a five-year all-payer demonstration with Center of Medicaid and Medicare Innovation (CMMI), in which Maryland agreed to specific targets in cost and quality of hospital care.

In an effort to engage various stakeholders in the implementation process, the HSCRC convened four workgroups to make recommendations on implementation issues. The Data and Infrastructure Workgroup (Workgroup) was charged[1] with making recommendations on data and infrastructure requirements to support care coordination initiatives, with a focus on potential opportunities for using Medicare data to support these initiatives. The purpose of the report is to provide recommendations on the principles and desirable features of a data infrastructure to support care coordination with Medicare Data.

Background

The goal of the new All-payer Model is to improve health outcomes, enhance patient experiences and control costs across the State. Maryland has committed to meeting all-payer per capita revenue requirements as well as Medicare savings. The need for patient-level Medicare data to support care coordination has always been recognized as an important resource to support care coordination activities needed to achieve the objectives of the New All-payer Model. The State application to CMMI envisioned enhanced care coordination and the Advisory Council urged the HSCRC to focus attention on identifying high-risk Medicare patients where few beneficiaries are in managed care. Hospital discharge data, alone, is insufficient to support an understanding of the needs of Medicare patients and effective care coordination. Timely and complete patient-level Medicare data is essential to understanding the non-hospital utilization of Medicare patients, identify high risk patients, assessing their gaps in care and implementing effective care coordination strategies.

The Department of Health and Mental Hygiene, HSCRC and hospital leaders are engaged in a discussion with CMMI about accessing confidential Medicare data to support the needs of hospitals and other providers under the new hospital payment model. While discussions with CMMI are on-going, a more concrete understanding of how Maryland will use this data efficiently and effectively to achieve the goals of the new model is needed. The Workgroup was tasked with considering what the data infrastructure for care coordination would look like and how it can address different provider needs.

[1] The Data and Infrastructure Workgroup was charged with making recommendations on: 1. data requirements, 2. Care Coordination Data and Infrastructure, 3. Technical and Staff Infrastructure, and 4. data sharing strategy

The Data and Infrastructure Workgroup held a joint meeting with the Physician Alignment and Engagement Workgroup to better understand strategies already in place in Maryland to use data to support care coordination and the needs in Maryland. Providers, payers and others shared different care improvement strategies currently underway. The common element for most strategies was identifying high need individuals through predictive modeling tools, risk assessment and risk stratification. Different predictive modeling tools and risk assessment tools were discussed and there are pros and cons of different tools related to the availability of data, how the tools relate and support specific care improvement initiatives, and the sophistication of the infrastructure needed to support the predictive modeling, risk assessment and risk stratification process.

There was interest and discussion about a range of care improvement initiatives (see figure 1). Some strategies were used as part of a comprehensive initiative and many of the strategies are over-lapping or related.

Figure 1. Broad Range of Potential Care Improvement Strategies

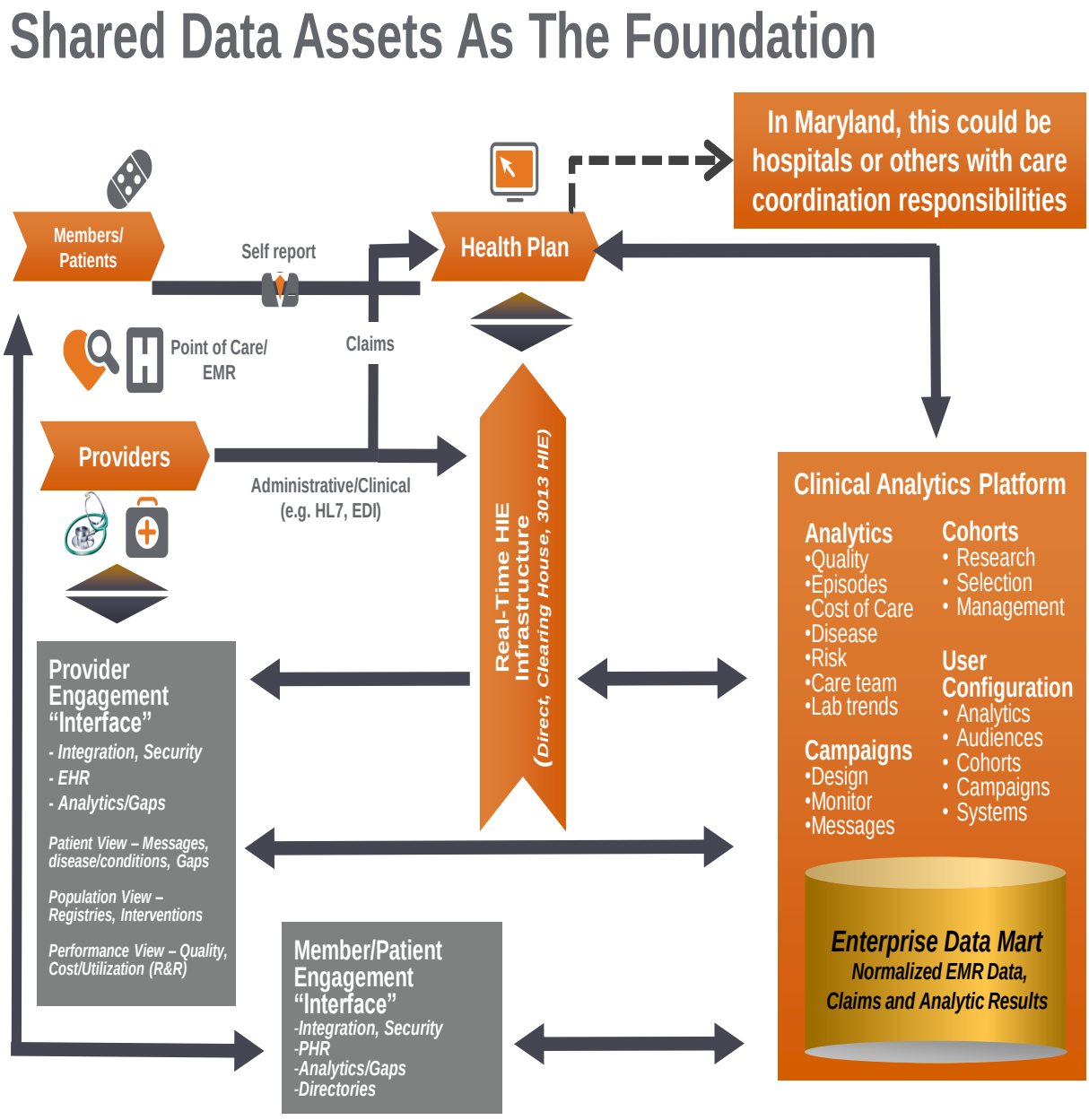
- Supporting care transitions between providers
- Designing readmission reduction initiatives
- Identifying gaps in care
- Diverting inappropriate use of Emergency Departments
- Focusing on episodes of care
- Providing patient and family education
- Coordinating handoffs to primary care providers

Note: This is only a summary of initiatives discussed and does not reflect all the care improvement strategies currently in practice

There was broad agreement in the Workgroup that there is a critical need for data to support care coordination and the importance of a data infrastructure designed to meet the new population health focus of the health care delivery system. The Workgroup recognized that there was a high degree of variability in the current infrastructure and capacity of hospitals and other providers to support their data needs. Building data infrastructures takes time and significant resources, making it critical to develop a roadmap based on a shared sense of needs and prioritizing efforts.

The new payment model fundamentally alters the payment incentives for hospitals and will likely change their role in care coordination as well as the role of other providers. The data needed by hospitals and other providers to support population based models is similar to the data infrastructure used by Accountable Care Organizations and payers to manage population health and will require more data than exists with any one provider. Several Workgroup members expressed interest in a high level data framework shared by an expert presenter during the joint meeting (see Figure 1 below).

Figure 1



Source: Adapted from Dean Farley, OptumInsight, HSCRC Joint Work Group Meeting, 3/27/14

The Workgroup was challenged to consider the care coordination infrastructure roadmap without a concrete understanding of specific care coordination initiatives that will be used. Specific strategies are still evolving and require input from a broader set of stakeholders. Further, care coordination strategies are likely to continually evolve. The Workgroup recognized that while there are many unknowns in the strategies that will be used, there are many common data needs across care

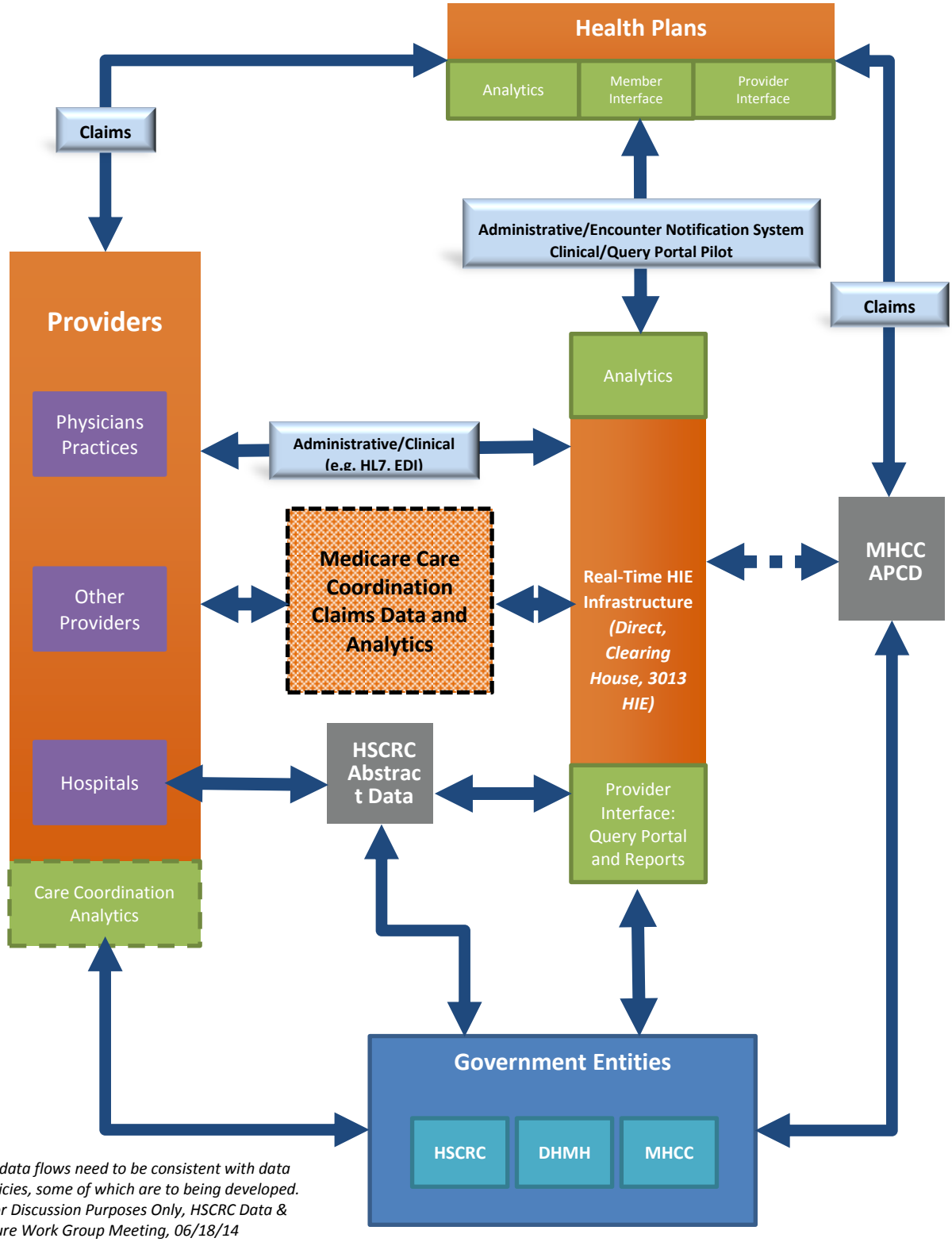
coordination initiatives and planning must begin. The Workgroup focused on broader discussions about the roadmap for data infrastructure.

A data infrastructure will ultimately be needed to support multiple purposes. Data is needed to support policy and program evaluation, operational management decisions and clinical decision-making. Clinically actionable data must be patient-level data and as real-time as possible to identify high risk patients and care improvement opportunities. Population based models will require getting data at the right time and right place to support clinical decision making.

The Workgroup discussed a high level roadmap (see Figure 2) for the technical data flows that currently exist in Maryland and what is needed to support care coordination. The Workgroup recommended that Medicare data be hosted in a way that fully leverages the foundation of data and analytic resources in Maryland. The State has robust data on hospital utilization through the hospital abstract data. The HSCRC and industry leaders are experienced with analyzing these data sets to support policy and operational needs. The policy and operational needs are evolving to require a broader population health focus. The investments Maryland has made in Health Information Exchange are particularly important to create a unique identity to support cross entity analyses that are essential to population health analytics. Medicaid and the Hilltop Institute at UMBC have significant experience analyzing Medicaid data and other data sets to support analyses of health care financing and delivery. The Maryland Health Care Commission manages the Medical Care Claims Data Base (MCDB), which has detailed information from commercial health plans. Enhancements to the MCDB are underway to make it timelier and address data gaps that will make it an important resource for population health analytics. The statewide Health Information Exchange, CRISP, provides clinical information to providers through a query portal. The Workgroup recommended the Medicare data be closely connected to CRISP. The portal includes Maryland's Prescription Drug Monitoring Program, which provides complete information on schedule II through V drugs. CRISP has real-time and complete administrative data from Maryland hospitals, which has enabled an encounter notification services to provide physicians, other providers and care coordinators information on patient admissions, discharges and transfers that some providers use in their care coordination efforts. There is an opportunity for CRISP to improve connectivity with ambulatory providers.

Roadmap of Data Flows to Support Care Coordination

Figure 2



**Technical data flows need to be consistent with data sharing policies, some of which are to being developed. DRAFT – For Discussion Purposes Only, HSCRC Data & Infrastructure Work Group Meeting, 06/18/14*

Principles and Desirable Features

The Workgroup developed principles and desirable features of data infrastructure designed to host Medicare data. The Workgroup considered what type of infrastructure is needed to support clinical decision making for Medicare beneficiaries by hosting data, applying analytic tools (such as predictive modeling algorithms) to support care coordination and sharing data with providers to support a varying level of need and capacity.

Principles

1. **Medicare Data should be accessible to different providers compliant with state and federal laws, policy and data use agreements for confidentiality and security and consistent with best practices**. The data infrastructure must be designed to support the protection of data, including role-based access to information.

2. **Data should be transparent to hospital and non-hospital providers to provide a uniform understanding of data findings (consistent with privacy and security requirements)**. Success under the new model will require collaboration among providers to meet the needs of the population. This collaboration is needed with hospitals and non-hospital providers, as well as among different hospitals that may be serving the same population. A uniform understanding of the data should be shared with providers consistent with the data use agreements and privacy and security protections.

3. **Gaps in Medicare data should be addressed through other data sources such as real-time HIE or DHMH.** Medicare claims data alone will not support comprehensive care coordination. Some ACOs have experienced delays in accessing data from CMS, which makes considering what can be done to address data gaps in the short run important. Clinical information that may be available through other resources or captured through risk assessments are important sources of information to support care coordination. Risk assessments can help identify additional factors that affect the need for care coordination, such as family support systems, ADL limitations, cognitive limitations, and other factors that may affect care management needs.

4. **Hospital, providers and policy makers should work collaboratively to leverage shared infrastructure to the extent it is feasible to minimize duplication, encourage efficiency and work from a uniform understanding of the data**. The data infrastructure needed to support care coordination under the new model will be costly and leveraging shared infrastructure will reduce wasteful spending on duplicate efforts. Shared infrastructure can also be used to focus on reducing duplication of care coordination resources assigned to support the same individual where multiple facilities are accessed by a patient.

5. **Achieving population health goals will require the interoperability of data systems to allow the exchange of data among providers**. Making data clinically actionable requires building it into provider workflows and getting it to providers who can act on it.

6. **The data infrastructure should maximize existing infrastructure and capacities and promote partnerships among providers and systems to coordinate and improve care.** There is varying capacity among Maryland hospitals and other providers to support population based care coordination. Maryland has organizations with advanced analytic skills. Maryland has already invested in some shared data resources such as the MCDB to support policy and operational analysis, and CRISP to support clinical decision making.

Desirable Features

1. Have independent and broad-based governance;
2. Ensure data security and confidentiality;
3. Be efficient and scalable;
4. Provide access to data and analytic tools to providers with varying level of capacity, including hospitals and non-hospital providers;
5. Have the ability to easily integrate with other systems, such as the HIE, while maintaining patient identity integrity across datasets;
6. Be flexible to support different uses of the data (i.e., predictive modeling, care management tools, quality improvement, etc.).

Recommendations and Next Steps

The Workgroup made the following recommendations and identified next steps.

1. **The State public and private sector health leaders need to develop a roadmap for its health care infrastructure**. Medicare data to support care coordination is only one part of a larger data infrastructure to support health care coordination and improvement. The planning to host Medicare data should be considered in the context of existing data infrastructure and other data needs of the all payer model.

2. **There should be a focused effort to get access to Medicare data because of its importance to care coordination and achieving the goals of the new model**. Identifying high risk Medicare patients and standing up care coordination initiatives are an important to achieving the Medicare savings goals of the new model. The HSCRC should continue to work closely with the Department of Health and Mental Hygiene, hospitals and CMMI to gain access to the data for Maryland providers.

3. **The HSCRC and stakeholders should pursue the use of other data sources, in addition to comprehensive Medicare data, to support care coordination.** It may take time to secure access to comprehensive Medicare data and tap into its potential value for care coordination. Other data sources could provide intermediate strategies to support care coordination or long-term strategies to address gaps in Medicare data.

4. **The most efficient and effective way to host Medicare data is through a shared infrastructure that is accessible hospitals and other providers**. Medicare data should be hosted in a shared infrastructure that can include other shared data sources and analytic tools (such as predictive modeling) that can be applied to enhance the value of data for care coordination purposes. The infrastructure would need to be flexible, to accommodate innovations in clinical decision making by providers, but also be uniform in how providers understand the underlying metrics related to payment. The Workgroup mandating a particular predictive modeling tool but recommended providing several alternatives and flexibility to accommodate different provider capabilities and needs. While some providers may have robust care management platforms and need to leverage additional data feeds, other providers may have limited capacity and need more basic tools. Regardless of the level of need, the infrastructure would need to promote transparency so providers are working from a uniform understanding of the metrics used to evaluate the data, as well as, the results.

5. **Defining specific use of data will be important to preparing Maryland to standup an infrastructure efficiently as well as supporting the case to CMMI to secure the data**. More work is needed to better understand the potential care coordination strategies and the data needed to support them. Implementation planning tasks should include defining the different providers and stakeholders with data needs and what data infrastructure is needed to support role-based access. Hospitals are likely to have data needs to support different roles in their organizations. Other providers and organizations will have data needs, including physicians, other health care professionals, post-acute and long term care providers, ACOs, Local Health Departments, DHMH and potential new organizations that may be created as a part of the State Innovation Model (SIM) Community Integrated Medical Home. Implementation tasks should also include engaging stakeholders in identifying and potentially procuring predictive modeling tool(s) and other analytic resources.

6. **There needs to be an analysis of potential use cases of data to identify gaps in data sharing policy that should be addressed**. Care coordination strategies and data needs are likely to evolve, requiring a process to address data sharing policy that can anticipate potential gaps in policy and be proactive in addressing policy gaps. Access to Medicare data will be limited to Medicare approved use cases and based on well-established Medicare data use agreements that govern policy on data sharing. There is existing federal and state policy that will affect data sharing policy, including HIPAA, Maryland Confidentiality of Medicare Records Act and the HSCRC Data Use Polices for abstract data. The MHCC Policy

Committee, which has consumer participation, can be a resource for additional policy development as needed.

7. **Other infrastructure needs will need to be addressed.** This report was narrowly focused on the data infrastructure needed to support care coordination. There will be other infrastructure needs, including human capital and training, which will need to be addressed as part of the broader discussion of the healthcare data infrastructure.

Data and Infrastructure Work Group Report: Recommendations on Data Infrastructure to Support Care Coordination

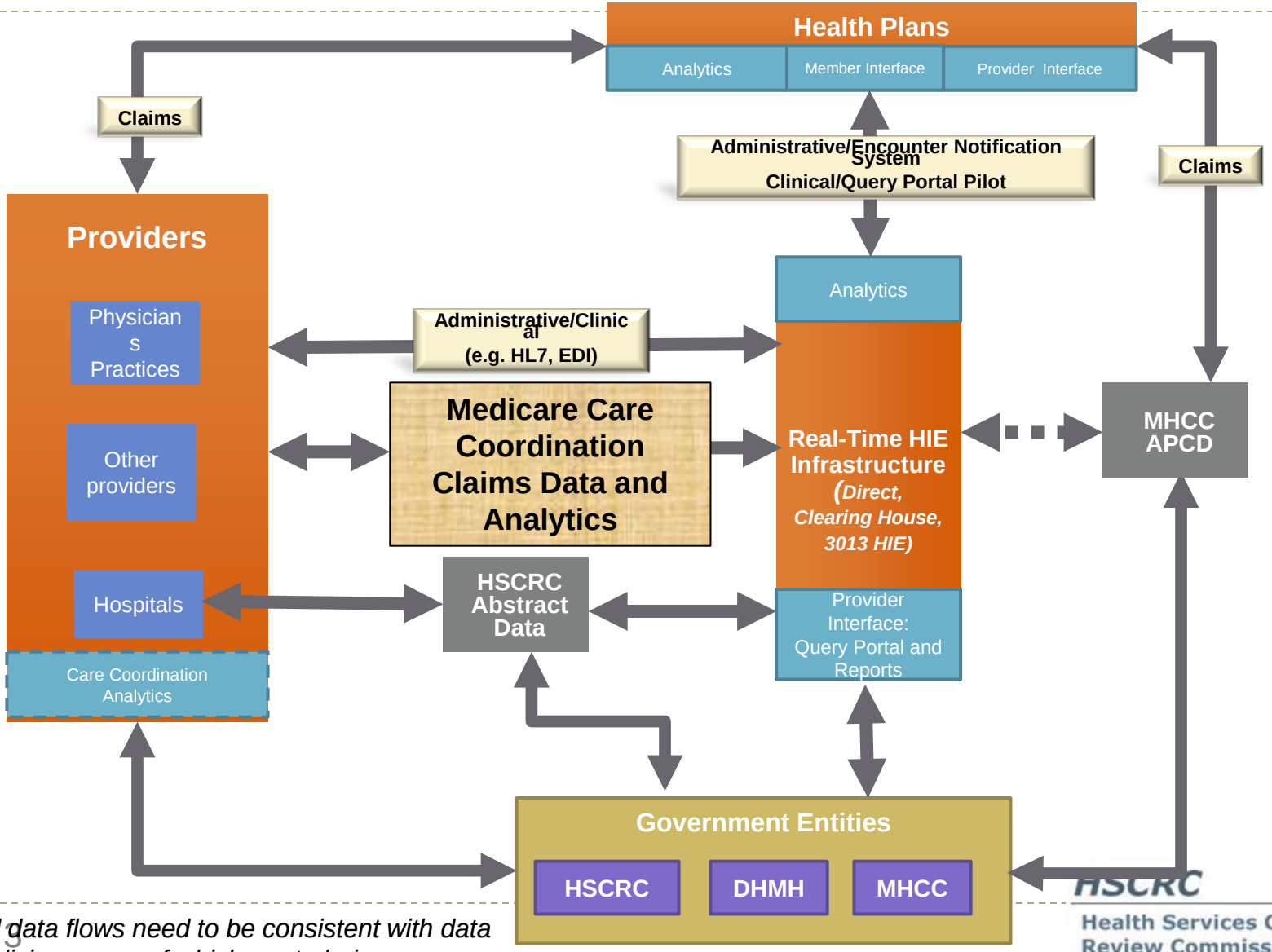
HSCRC Commission Meeting, July 9, 2014

HSCRC
Health Services Cost Review Commission

Focus on Medicare Data Needs

- Medicare Data Request
  - HSCRC working with CMS to secure Medicare Data
  - Hospital data alone is insufficient to support care coordination
- Medicare data has potential to support important activities:
  - Predictive modeling/Risk Stratification/Risk Identification
  - Information to support Care Management
- Need to determine infrastructure that will most effectively and efficiently support care coordination
- Joint Workgroup Meeting – overview of data infrastructure for care coordination, predictive modeling
  - SIM Proposal; Payer; Provider; ACO; Special Needs Plans; MHA Care Transitions Committee

Roadmap of Data Flows to Support Care Coordination



*Technical data flows need to be consistent with data sharing policies, some of which are to being developed

Principles

- **Medicare Data should be accessible to different providers compliant with state and federal laws, policy and data use agreements for confidentiality and security and consistent with best practices.**
- **Data should be transparent to hospital and non-hospital providers to provide a uniform understanding of data findings (consistent with privacy and security requirements).**
- **Gaps in Medicare data should be addressed through other data sources such as real-time HIE or DHMH.**
- **Hospital, providers and policy makers should work collaboratively to leverage shared infrastructure to the extent it is feasible to minimize duplication, encourage efficiency and work from a uniform understanding of the data.**
- **Achieving population health goals will require the interoperability of data systems to allow the exchange of data among providers. The data infrastructure should maximize existing infrastructure and capacities and promote partnerships among providers and systems to coordinate and improve care.**

Desirable Features

- Have independent and broad-based governance;
- Ensure data security and confidentiality;
- Be efficient and scalable;
- Provide access to data and analytic tools to providers with varying level of capacity, including hospitals and non-hospital providers;
- Have the ability to easily integrate with other systems, such as the HIE, while maintaining patient identity integrity across datasets;
- Be flexible to support different uses of the data (i.e., predictive modeling, care management tools, quality improvement, etc.).

Work Group Recommendations

- **The State public and private sector health leaders need to develop a roadmap for its health care infrastructure.**
- **There should be a focused effort to get access to Medicare data because of its importance to care coordination and achieving the goals of the new model.**
- **The HSCRC and stakeholders should pursue the use of other data sources, in addition to comprehensive Medicare data, to support care coordination.**
- **The most efficient and effective way to host Medicare data is through a shared infrastructure that is accessible hospitals and other providers.**
- **Defining specific use of data will be important to preparing Maryland to standup an infrastructure efficiently as well as supporting the case to CMMI to secure the data.**
- **There needs to be an analysis of potential use cases of data to identify gaps in data sharing policy that should be addressed.**
- **Other infrastructure needs will need to be addressed.**

Performance Measurement Work Group Report to the Commission:

Strategy for Population Based, Patient Centered

Performance Measurement

Health Services Cost Review Commission

4160 Patterson Avenue Baltimore, MD 21215

(410) 764-2605

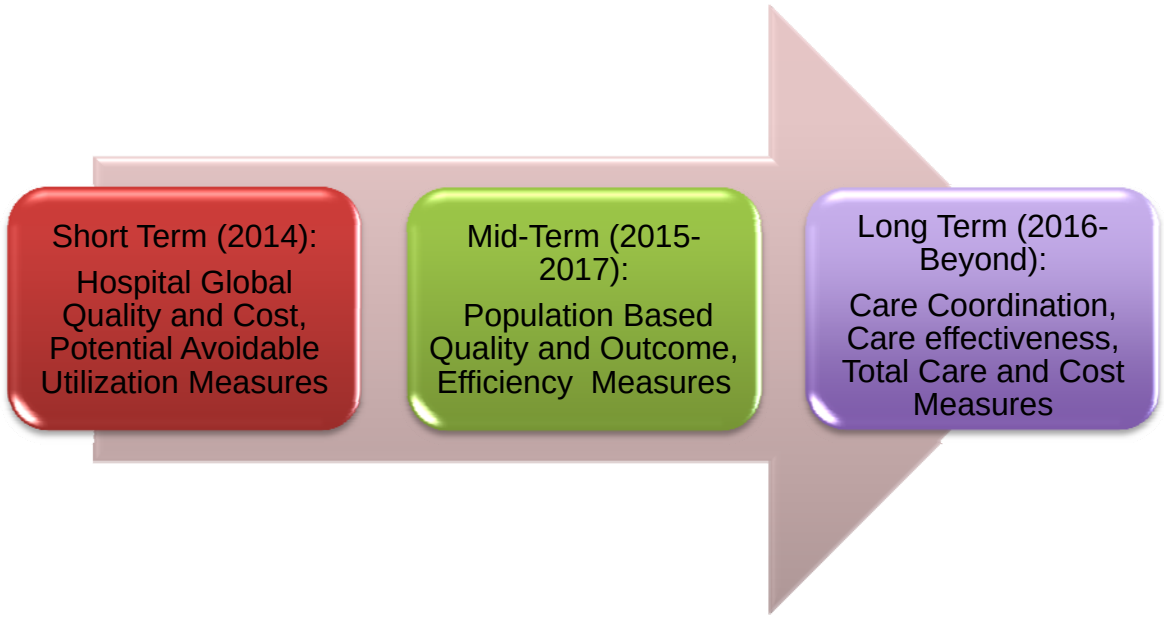
July 9, 2014

This document summarizes the deliberations of the Performance Work Group on aligning performance measurement with the new All-Payer Model. This report is intended for the purpose of discussion related to a strategy and direction for performance measurement, and does not require formal action by the Commission.

INTRODUCTION

The charge of the Performance Measurement Workgroup is to provide input on what specific measures of cost, care and health should be considered for adoption, retention or development in order to evaluate and incentivize performance improvements under the population-based All-Payer Model. A comprehensive measurement strategy must first be developed to support achievement of the Model goals; this strategy must align with the All-payer Model development and implementation timeline as well as recognize and support the priorities at each phase of the process. In beginning to address this charge, the Workgroup acknowledged that the performance measurement strategy must first focus on measurement of global hospital-based services and care that support immediate success in achieving the new All-payer Model targets, then expand to measurement of population-based quality and efficiency, and ultimately measurement that supports patient-centered, coordinated, cost-effective care that achieves better outcomes (Figure 1).

Figure 1: Performance Measurement Strategy Priorities Over Time



The Performance Measurement Workgroup discussed the context for developing an overall measurement strategy, and presentations on specific measures in some relevant categories of measures in which we need to expand over time. The Workgroup also discussed the need to monitor performance in "real time" to the extent possible, and to this end vetted draft dashboards at the hospital/system- and statewide-level to be finalized and put into place in the short term.

This report summarizes the Workgroup's efforts to date as well as other important proposed considerations toward fleshing out a robust performance measurement strategy.

PPERFORMANCE MEASUREMENT STRATEGY CONSIDERATIONS

Regarding the potential array of purposes or uses of measures, Figure 2 illustrates the key principles and stakeholders that must be considered in the overall performance measurement strategy for each of the domains and measures identified to support the All-payer Model. Although the HSCRC has traditionally been focused on payment related measures, the workgroup acknowledged a need for coordinated effort in addressing emerging needs of performance measurement related to public reporting and monitoring in the context of All-payer Model.

Figure 2. Measurement Strategy Principles and Stakeholders

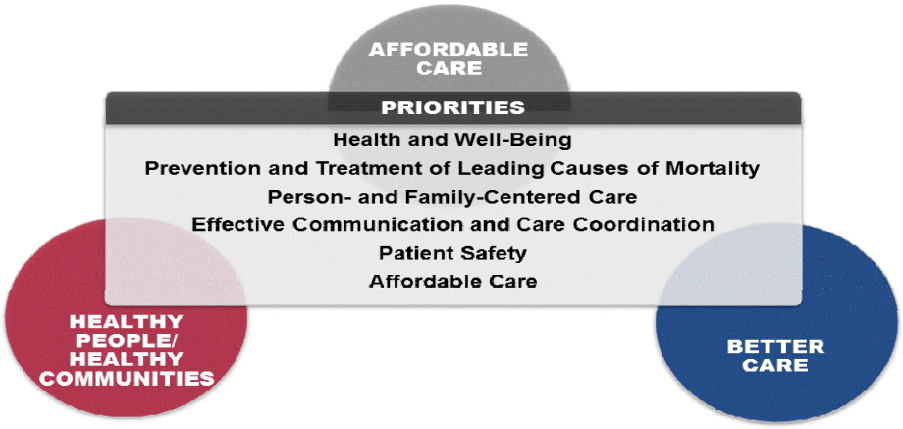
Principles/criteria to guide measure domains to be implemented:
❖ Accountability
➢ Payment
➢ Public reporting
➢ Program monitoring and evaluation
❖ Improvement
❖ Alignment with Model targets and monitoring commitments
Stakeholders
❖ Policymakers – CMS, HSCRC (commission, staff), MHCC, DHMH
❖ Providers – hospitals, physicians, others
❖ Payers/purchasers – health plans, employers
❖ Patients – consumers

Achieving the Three-Part Aim of Better Care, Better Health and Lower Cost

The National Quality Strategy (NQS) first published in March 2011 and led by the Agency for Healthcare Research and Quality on behalf of the U.S. Department of Health and Human Services (HHS) articulated the three-part aim. Maryland's All-payer Model has directly aligned its aims with those of the NQS's three-part aim. So too, Maryland's performance measurement strategy needs to address the NQS priorities and use the available levers as identified by the NQS, either directly through policy implementation or indirectly in working with partners, to maximize success in achieving the aims.

To advance the aims, the NQS focuses on six priorities, as illustrated in Figure 3.

Figure 3. National Quality Strategy Priorities.



Each of the nine NQS levers, listed below, represents a core business function, resource, or action that Maryland can use to align to the NQS and maximize our opportunity for improvement and success under the new Model. HSCRC already uses several of the levers in its performance measurement programs.

- Measurement and Feedback: Provide performance feedback to plans and providers to improve care
- Public Reporting: Compare treatment results, costs and patient experience for consumers
- Learning and Technical Assistance: Foster learning environments that offer training, resources, tools, and guidance to help organizations achieve quality improvement goals
- Certification, Accreditation, and Regulation: Adopt or adhere to approaches to meet safety and quality standards
- Consumer Incentives and Benefit Designs: Help consumers adopt healthy behaviors and make informed decisions
- Payment: Reward and incentivize providers to deliver high-quality, patient-centered care
- Health Information Technology: Improve communication, transparency, and efficiency for better coordinated health and health care
- Innovation and Diffusion: Foster innovation in health care quality improvement, and facilitate rapid adoption within and across organizations and communities
- Workforce Development: Investing in people to prepare the next generation of health care professionals and support lifelong learning for providers

MEASUREMENT UPDATES AND NEW DOMAINS

The Workgroup vetted near term measurement updates for the Maryland Hospital Acquired Conditions (MHAC) and Readmission Reduction Policies, and provided important input on efficiency measurement, a topic that is addressed in a separate report.

The Workgroup also considered options for implementing hospital- and regional-level dashboards that present of a mixture of key financial and non-financial measures that would be monitored closely (mostly monthly) and consistently across hospitals and for the state or other defined regions, and provide a "snapshot" of trends over time. The dashboard is intended as a

tool to articulate the links between leading inputs, processes, and lagging outcomes and focuses on the importance of managing these components to achieve the strategic priorities. The Workgroup noted the dashboard is not meant to replace traditional financial or operational reports but is intended to provide a succinct summary to help users with situational awareness. In vetting the hospital/system- and regional-level draft dashboard templates, there was agreement among the Workgroup members to begin by including the domains and measures for monitoring listed in Appendix A. As the All-Payer model includes reducing racial/ethnic disparities as part of the quality improvement strategy in achieving three-part aim, the dashboard will also be adapted to look at racial/ethnic disparities at the state-wide level. HSCRC staff will coordinate with the DHMH Office of Minority Health in determining the most appropriate measurement strategy to effectively monitor the racial and ethnic disparities in quality of care and patient outcomes.

In addition, the Workgroup discussed measurement domains/areas where there is great added potential for success in reaching the three-part aim, but which are still the most aspirational in terms of achieving robust valid and reliable measurement**.** These "new frontiers" of measures include Population Health and Patient Centered Care measures.

Population Health Measures

According to the World Health Organization, health is defined as "A state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity." Population health entails improving overall health status and health outcomes of interest to individuals, the clinical care system, the government public health system, and stakeholder organizations. It is influenced by physical, biological, social and economic factors in the environment, by personal health behavior, and by access to and effectiveness of healthcare services.Sub-domains of population health measures with specific measure examples are listed below.

- Health Outcomes- high-level indicators
  Measure examples: mortality, longevity, Infant mortality/ low birth weight/ preterm birth, Injuries/ accidents/homicide, suicide rate

- Access- availability and use of services
  Health insurance status; primary care access; access to needed services; condition specific hospital admissions; Measure examples:
  (NQF#1337) Children with Inconsistent Health Insurance Coverage in the Past 12 Months,
  (NQF #718) Children Who Had Problems Obtaining Referrals When Needed,
  (NQF #277) Heart Failure Admission Rate (PQI 8)

- Healthy Behaviors- choices by individuals and communities
  Addictive substances assessment and counseling; weight assessment and physical activity counseling; Measure examples:
  (NQF #2152) Preventive Care and Screening and Counseling: Unhealthy Alcohol Use
  (NQF #1656) Tobacco Use Treatment Offered at Discharge

(NQF #1406) Risky Behavior Assessment or Counseling by Age 13 Years
(NQF #421) Body Mass Index (BMI) Screening and Follow-Up

- Prevention- screening and early intervention
  Disease and condition screening; immunizations; maternity care; newborn and child development; Measure examples:
  (NQF #34) Colorectal Cancer Screening
  (NQF #1659) Influenza Immunization
  (NQF #278) Low Birth Weight Rate (PQI 9)
  (NQF #1385) Developmental screening using a parent completed screening tool
  (NQF #104) Adult Major Depressive Disorder: Suicide Risk Assessment

- Social Environment- health literacy and attention to disparities
  Health literacy; education (e.g., graduation rate); community safety; poverty level; disparities-sensitive measures; Measure example:
  (NQF #720) Children Who Live in Communities Perceived as Safe

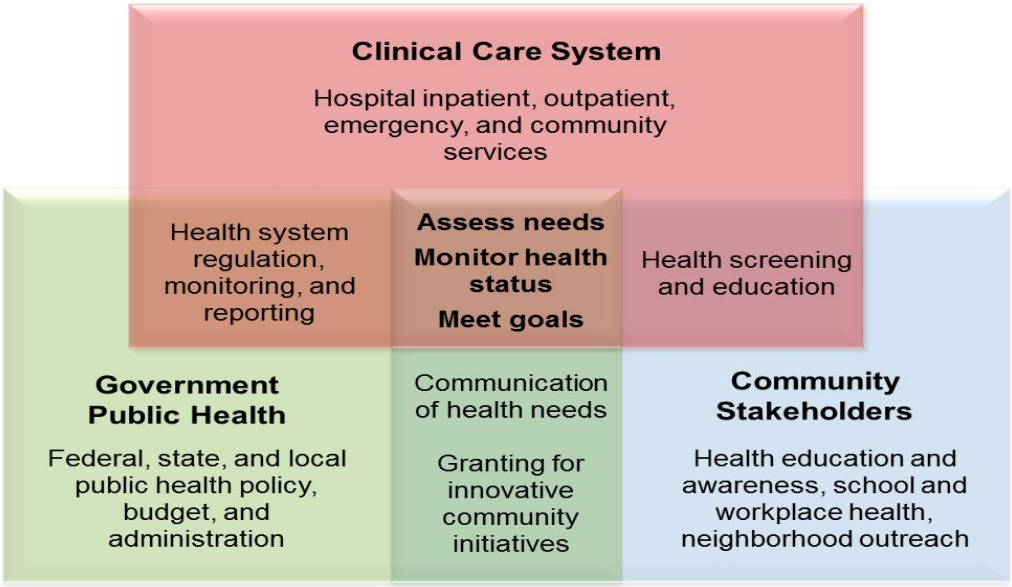
- Physical Environment- built infrastructure and natural resources
  Healthy food options, neighborhood walkability, air quality; Measure example:
  (NQF 1346) Children Who Are Exposed To Secondhand Smoke Inside Home

Hospitals have an interest in population health management for many reasons, including:

- Caregivers are passionate about promoting health.
- Length of stay, readmissions, and complications are linked to health and wellness of patients before and after hospital stay.
- Increased policy efforts can improve care coordination between hospitals, primary care, pharmacy, and the entire medical neighborhood.
- Hospital data can be used to assess community health.
- Community health initiatives build goodwill and reinforce non-profit status.
- Hospitals are themselves parts of the communities in which they are located.

Hospitals' expanded interest and work to improve population health overlaps significantly with their own quality measurement and performance, as illustrated in Figure 4 below.

Figure 4. Hospital Measurement Overlap with Population Health Measurement



Maryland state health agencies must continue to collaborate in both measurement and improvement of quality in our broader community. Hospitals, for example, engage in community needs assessments and link these assessment findings in their community benefit activities summarized in their Community Benefits Reports updated each year. In terms of phasing of implementation and use of population health measures for potential use in hospital payment incentive programs, the Workgroup discussed first measuring healthy behaviors and preventive services for hospital patients, then expanding to assessing community health needs and developing a measurement strategy around improvement, and finally collaborating with public health officials and community services on measuring progress in addressing community needs. Some of the population health measures could directly be applicable for measuring hospital performance; however; existing measurement definitions often times capture a geography or group of people and would require further methodological development to adapt to hospital specific performance measurement in this phasing approach.

Person (Patient and Family) Centered Care Measures

NQF conducted a Person-Centered Care Measure Gaps Project that defined Patient and Family Centered Care as "an approach to the planning and delivery of care across settings and time that is centered on collaborative partnerships among individuals, their defined family, and providers of care." This care also "supports health and well-being by being consistent with, respectful of, and responsive to an individual's priorities, goals, needs, and values." Key principles for these measures include:

- They are meaningful to consumers and built with the involvement of consumers
- They are focused on their entire care experience, rather than a single setting or program

- They are measured from the person's perspective and experience (i.e., generally patient-reported unless the patient/consumer is not the best source of the information)

Person centered care measure sub-domains with examples of measures are listed below.

- Experience of Care
  Measure examples:
  (NQF #166) HCAHPS- Survey for Hospital Inpatients on Communication with doctors, Communication with nurses, Responsiveness of hospital staff, Pain control, Communication about medicines, Cleanliness and quiet of the hospital environment, Discharge information.
  Communication Climate Assessment Toolkit (C-CAT)- American Medical Association Survey Tool Measure domains: Health literacy, Cross-cultural communication, Individual engagement, Language services Provider leadership commitment, Performance evaluation.

- Health-Related Quality of Life
  Functional Status; mental health assessment; "whole person" well-being; Measure examples:
  (NQF #260)Assessment of Health-Related Quality of Life (Physical and Mental Functioning) Using KDQOL-36
  (NQF #'s 0422-0428)Functional States Change for Patients with Orthopedic Impairments
  (NQF #0418) Screening for Clinical Depression and Follow-Up Plan

- Burden of Illness
  Symptom management (pain, fatigue); treatment burden (patients, family, community); Measure examples:
  (NQF #0050)Osteoarthritis: Function and Pain Assessment
  (NQF #0420)Pain Assessment and Follow-up
  (NQF #0101)Falls: Screening, Risk Assessment and Plan of Care to Prevent Future Falls

- Shared Decision-Making
  Communication with patient and family; advance care planning; establishing goals; care concordant with individual preferences; Measure examples:
  (NQF #326)Advance Care Plan
  (NQF #0310)Back Pain: Shared Decision-Making
  (NQF #557)Psychiatric Post-discharge Continuing Care Plan Created
  (NQF #1919)Cultural Competency Implementation Measure

- Patient Navigation and Self-Management
  Patient activation; health literacy; caregiver support; Measure examples:
  (NQF #1340)Children with Special Health Care Needs (CSHCN) Who Receive Services Needed for Transition to Adult Health Care
  (NQF #0603)Adults Taking Insulin with Evidence of Self-Management

A phased approach for person centered care measurement and its potential use in payment incentive models may begin by measuring experience of care (HCAHPS) which HSCRC has measured for Quality Based Reimbursement since 2009. The next phase could expand to measuring burden of illness (pain), cultural competency, and shared decision-making (care plans/procedures) measures, and finally advance to measuring improvement in functional status and patient self-management. Performance in this domain is important not only for policymakers and providers but would have particular significance for consumers.

Collaboration is Essential to Improving Population-Based, Patient Centered Care

Some of the most important potential gains in patient centered care and improving hospital efficiency and population health require community-wide interventions, outside hospital walls. Global budgets alone are unlikely to lead most GBR hospitals to collaborate around community initiatives in this area. An approach recommended by the Maryland Citizens Health Care Initiative Education Fund, Inc. in their white paper submission to HSCRC on Hospital Collaboration would directly incentivize such collaboration by rewarding a hospital, not just for its own efficiency, population health and patient centered care improvement gains, but also for those throughout its service area (link to the white paper: http://hscrc.maryland.gov/documents/md-maphs/wp-sub/HCFA-White-Paper-2-Multi-Hospital-Collaboration-060914.pdf). The white paper further suggests that DHMH should further encourage collaboration by sponsoring forums at which hospitals and other local stakeholders can develop arrangements, including gain-sharing and shared savings agreements, to reduce unnecessary costs by improving community-based care, including through investing in care coordination, perhaps starting with chronically ill Medicare patients. If successful, this approach will further integrate Maryland's new hospital financing system with the delivery system and financing reforms that are taking place outside the state's hospitals, synergistically strengthening innovations in both realms to help accomplish the Triple Aim.

NEXT STEPS: PERFORMANCE MEASUREMENT PLANNING STRUCTURE

Many factors come to bear in implementing a robust and successful performance measurement strategy that is population based and patient centered. Priorities and levers for achieving the three-part aim, performance measurement principles/criteria, and stakeholders that must have a voice will require collaboration among agencies, workgroups and stakeholders. Going forward, an updated Performance Improvement and Measurement Workgroup, for example, may work with multi-agency and multi- stakeholder groups such as those focused on consumer engagement and care coordination and infrastructure, and potential ad hoc subgroups focused on, for example, efficiency, ongoing monitoring activities, and total cost of care. Much work will need to focus on developing and implementing measures where there are gaps in important measurement areas/domains. To this end, staff will work with all the identified stakeholders through the various workgroups and ad-hoc groups to review inventories of currently available measures for each targeted domain where measurement must occur, and to identify where new measures will be required. For each of the domains and measures proposed, the Workgroup will again need to consider the purpose(s) for use of the measures—accountability (payment, public

reporting, program monitoring and evaluation), improvement, and alignment with Model targets and monitoring— as well as the stakeholders for whom these data are intended—policymakers (CMS, HSCRC, MHCC, DHMH), providers (hospitals, physicians, etc.), payers/purchasers, health plans, employers, patients, consumers.

The Performance Measurement Workgroup has reviewed a proposal of the staff as a part of the strategy for moving performance measurement work forward; Appendix B illustrates a draft plan that sketches out performance measurement expansion over time, including potential purposes, domains and potential audiences of measures/domains.

Appendix A. DRAFT Hospital and Regional Dashboard Domains and Measures

Hospital and Regional (State, County, etc.) Measures	Measurement Interval	Applicability
Revenue		
Total Inpatient Revenue	Monthly	Hospital and Regional
Total Outpatient Revenue	Monthly	Hospital and Regional
Total Revenue	Monthly	Hospital and Regional
Total Revenue Resident	Monthly	Hospital and Regional
Total Revenue Medicare Resident	Monthly	Hospital and Regional
Total Resident Revenue per Capita	Monthly	Hospital and Regional
Total Medicare Resident Revenue per beneficiary	Monthly	Hospital and Regional
Volume		
Total Inpatient Discharges	Monthly	Hospital and Regional
Total Inpatient Discharges- Resident	Monthly	Hospital and Regional
Total Inpatient Discharges, Medicare Resident	Monthly	Hospital and Regional
Total ED Visits	Monthly	Hospital and Regional
Total ED Visit - Resident	Monthly	Hospital and Regional
Total ED Visits- Medicare Resident	Monthly	Hospital and Regional
Total Equivalent Case Mix Adjusted Discharges (ECMAD)	Monthly	Hospital and Regional
Total ECMAD - Resident	Monthly	Hospital and Regional
Data Sharing		
Principle Provider Notification	Quarterly	Hospital and Regional
BETTER HEALTH		
Rates of Acute Composite AHRQ Prevention Quality Indicators	Monthy	Regional Only
Rates of Chronic Composite AHRQ Prevention Quality Indicators	Monthy	Regional Only
Maryland State Health Improvement Process		
SHIP 33- Diabetes-related ED visits	Monthly	Hospital and Regional
SHIP 34- Hypertension-related ED visits	Monthly	Hospital and Regional
SHIP 36- ED visits for mental health conditions	Monthly	Hospital and Regional
SHIP 37- ED visits for addictions-related conditions	Monthly	Hospital and Regional
SHIP 41- ED visits for asthma	Monthly	Hospital and Regional
SHIP 2- Low Birth Weight Births	Monthly	Hospital and Regional
BETTER CARE		
HCAHPS: Patient's rating of the hospital	Quarterly	Hospital and Regional

Hospital and Regional (State, County, etc.) Measures	Measurement Interval	Applicability
HCAHPS: Communication with doctors	Quarterly	Hospital and Regional
HCAHPS: Communication with nurses	Quarterly	Hospital and Regional
Maryland Hospital Acquired Condition Rates	Monthly	Hospital and Regional
All Cause Readmission Rate (CMS Methodology with exclusions)	Monthly	Hospital and Regional
Rates of ED/Observation visits within 30 days post discharge	Monthly	Hospital and Regional
Numbers/Percent of ED to Inpatient Transfers	Monthly	Hospital and Regional
Numbers/Percent of Inpatient to Inpatient Transfers	Monthly	Hospital and Regional
REDUCE COSTS		
Potentially Avoidable Utilization Costs		
Inpatient- All Hospital, All Cause 30 Day Readmissions using (CMS with adjustment)	Monthly	Hospital and Regional
ED/Observation – any visit within 30 days of an inpatient admission	Monthly	Hospital and Regional
Potentially Avoidable Admissions (as measured by AHRQ PQIs)	Monthly	Hospital and Regional
Hospital Acquired Conditions as measured by Potentially Preventable Complications (PPCs)	Monthly	Hospital and Regional

Appendix B

Measure Domains, Potential Uses and Target Audiences

	Purposes/Uses					Target Audiences			
Measure Domains	**Improve-ment**	**Account-ability**	**Pay-ment**	**Public Reporting/ Trans-perancy**	**Program Monitoring/ Evaluation**	**Policy Makers**	**Providers**	**Payers**	**Patients**
SHORT TERM									
QBR	X	X	X	X	X	X	X	X	X
MHAC	X	X	X	X		X	X		
PAU	X				X	X	X		
PQI	X (statewide / regional)				X (statewide/ regional)	X	X		
FALL 2014 UPDATES									
QBR	X	X	X	X	X	X	X	X	X
MHAC	X	X	X	X	X	X	X		
PAU	X	X	X	X	X	X	X		
PQI	X (statewide				X (statewide/	X	X		

	Purposes/Uses					Target Audiences			
Measure Domains	**Improve-ment**	**Account-ability**	**Pay-ment**	**Public Reporting/ Trans-perancy**	**Program Monitoring/ Evaluation**	**Policy Makers**	**Providers**	**Payers**	**Patients**
	/ regional				regional)				
Cost Efficiency Measures	X	X	X	X	X	X	‘X	X	X
JULY 2014- JUNE 2015 DEVELOPMENT									
Risk Adjusted Readmis-sions	X	X	X	X	X	X	X	X	X
Care Improve-ment	X				X	X	X		
Patient-Centered Care	X				X	X	X		
EHR Measures	X				X	X	X		
Care Coordi-	X				X	X	X		

	Purposes/Uses					Target Audiences			
Measure Domains	**Improve-ment**	**Account-ability**	**Pay-ment**	**Public Reporting/ Trans-perancy**	**Program Monitoring/ Evaluation**	**Policy Makers**	**Providers**	**Payers**	**Patients**
nation									
Total Cost of Care	X				X	X	X		
LONG TERM									
QBR	X	X	X	X	X	X	X	X	X
MHAC	X	X	X	X	X	X	X		
PAU	X	X	X	X	X	X	X		
PQI	X (statewide / regional				X (statewide/ regional)	X	X		
Cost Efficiency Measures	X	X	X	X	X	X	X	X	X
Risk Adjusted Readmis-sions	X	X	X	X	X	X	X	X	X

	Purposes/Uses					Target Audiences			
Measure Domains	**Improve-ment**	**Account-ability**	**Pay-ment**	**Public Reporting/ Trans-perancy**	**Program Monitoring/ Evaluation**	**Policy Makers**	**Providers**	**Payers**	**Patients**
Care Improve-ment	X	X	X	X	X	X	X	X	X
Patient-Centered Care	X	X	X	X	X	X	X	X	X
EHR Measures	X	X	X	X	X	X	X	X	X
Care Coordi-nation	X	X	X	X	X	X	X	X	X
Total Cost of Care	X	X	X	X	X	X	X	X	X

Maryland's New All-Payer Model Phase 2 of Implementation Planning, Public Engagement, Monitoring, and Infrastructure

INITIAL DRAFT FOR COMMENT July 9, 2014

HSCRC
Health Services Cost Review Commission

HSCRC Model Implementation Timeline

Phase 1 (to 6/30/14)	Phase 2 (7/1/14 – 3/30/15)	Phase 3 (4/1/15 – 3/30/16)	Phase 4 (2016-Beyond)
Bring hospitals onto global revenue budgets Complete	Identify, monitor, and address clinical and cost improvement opportunities	Implement additional population-based and patient centered approaches	Develop proposal to focus on the broader health system beyond 2018
Begin public input process: advisory council and work groups	•Enhance models, monitoring and infrastructure •Formalize partnerships for engagement and improvement	•Evolve alignment models and payment approaches •Increase focus on total cost of care	Secure resources, and bring together all stakeholders to develop approach

HSCRC Regulatory Activities: Phase 2

- Develop or adopt performance measures
- Measure clinical and financial performance
- Set rates and revenues
- Refine revenue models, especially market share and shifts to non-regulated settings
- Measure and assure compliance with CMS agreement
- Secure necessary staff and resources
- Create necessary data flows and infrastructure

HSCRC Partnerships:
Activities for Phase 2

- Clinical & Cost Improvement: Support selected strategies for reducing potentially avoidable utilization, practice and cost variation, and supporting high needs patients
- Physician and Other Provider Participation: Support development and implementation of alignment/engagement models
- Consumer Participation: Support consumer engagement and skill development

HSCRC Partnership Activities

- HSCRC does not have the statutory authority to require these activities.
- These partnership activities are, however, vital to HSCRC's success with the New All-Payer Model.
- HSCRC can serve as a catalyst, convener, and partner along with other State agencies and stakeholders.
  - Promote opportunities to improve care and lower cost
  - Address enablers and barriers
  - Increase communication
  - Reward those who achieve program goals

Phase 2: Public Engagement Approach

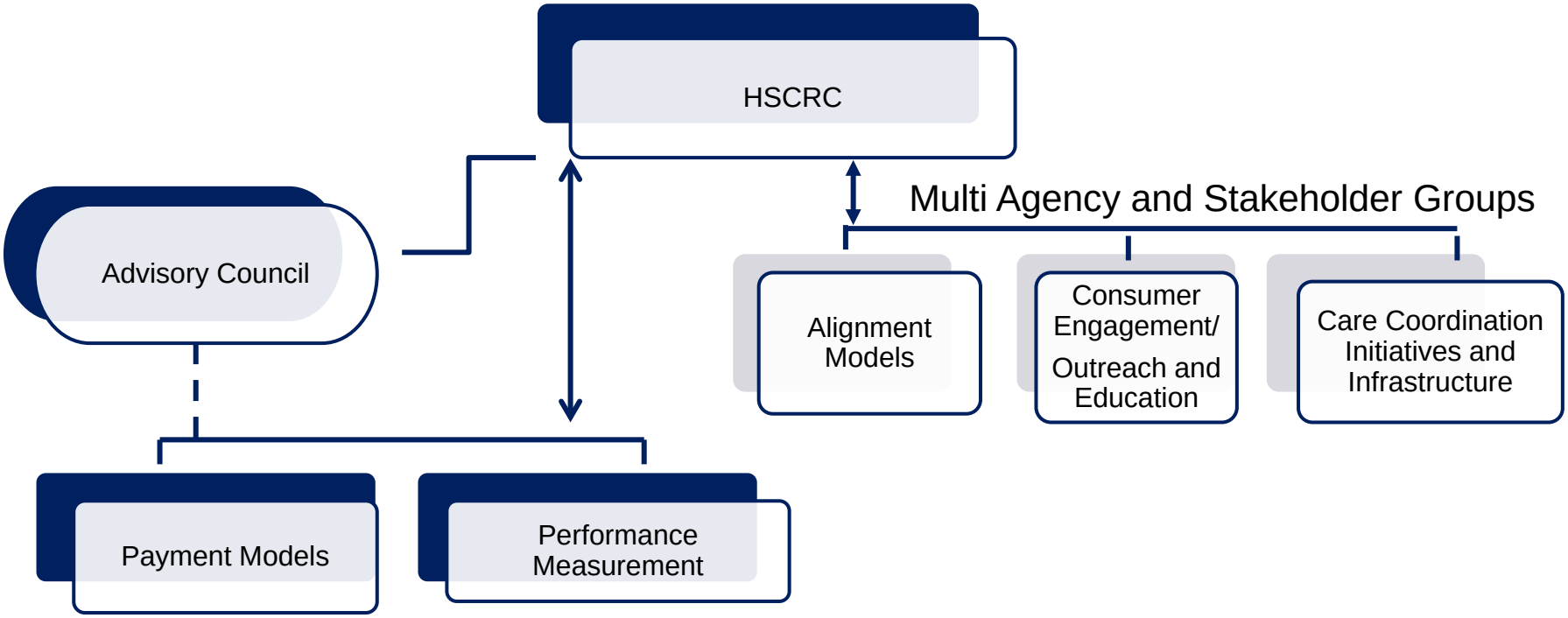
Current Process, Looking Forward

- For the short term, aggressive work plans were needed to meet deliverable schedule
- Looking ahead:
  - Work plan may require different configuration of workgroups
  - Opportunity to engage stakeholders to lead different initiatives
  - Less frequent meetings would allow more time for analysis and review between meetings
  - More focus on outreach and education about new model
  - Ad hoc subgroups effective in engaging stakeholders in development of implementation plans
  - Advisory Council input must be timed to support broad input

Role of Advisory Council and Workgroups

- Purpose of Advisory Council and Workgroups is to encourage broad input from informed stakeholders
- Commission decision making is better informed with robust input from stakeholders
- Advisory Council and Workgroups identify areas where there is consensus as well as areas where there are differences of opinion
- Non-voting groups

Implementation Planning Structure – Mid-Term



Potential Ad Hoc Subgroups

Transfers	GBR Rev/Budget Corridor	GBR Template	GBR Infra. Investment Rpt.	Market Share.
Efficiency	Monitoring	Total Cost of Care	Physician Alignment	LTC/Post Acute.

Work Groups for Phase 2

- The workgroups are designed to address several of the identified needs.
- The Performance Measurement and Care Coordination work groups will focus on clinical improvement and monitoring
- The Alignment Models and Consumer work groups will focus on outreach and engagement and alignment of consumers, providers, and payers
- The Payment Models will focus on continued development of payment policies and tools under the new model
- Subgroups are an effective strategy to address more technical topics and coordination among groups

Work Group Process for Phase 2

- Data and infrastructure addressed in all groups
  - Membership invited to participate as appropriate
- Some topics require interagency and stakeholder leadership
  - with HSCRC participation
- Purpose is to encourage broad input from informed stakeholders
- Commission decision making is better informed with robust input from stakeholders
- Advisory Council and Workgroups identify areas where there is consensus as well as areas where there are differences of opinion
- Non-voting groups

HSCRC - Workgroup Descriptions Phase 2

Payment Models

- Transfers
- Market Share
- Guardrails
- Gain Sharing and Shared Savings
- Post-acute Bundled Payment
- Capital Policy
- 2016 UCC Policy
- Evolution of Model
- Regional Collaboration
- Bundled Payments

Performance Measurement

- Monitoring
- Updates: QBR and MHAC, Readmissions RY 17 revisions
- Efficiency Measures FY 2016
- PAU – Ambulatory Care
- New Measure Development
- Risk Adjusted Readmissions

Ad Hoc Subgroups

- Total Cost of Care
- Possible new groups:
  - Market Share/Transfers
  - Guardrails
  - GBR Corridors
  - GBR Reporting templates
  - GBR Infrastructure Allowance Reporting
  - Efficiency
  - Monitoring
  - Others - TBD

Multi Agency and Stakeholder Workgroups Phase 2

Care Coordination Initiatives and Infrastructure

- Clinical improvement opportunities
- Opportunities to leverage Medicare data for predictive modeling and care coordination
- Relationship to Alignment Strategies
- Resource approaches (e.g. call center, community case management, care plans)
- Relationship to Community Resources/Other Initiatives/Payer Initiatives
- Data and Infrastructure Needed

Alignment Models

- Monitor and advise on work plan for Physician Alignment and Engagement Report
- LTC/Post Acute Alignment
- Coordination among different stakeholder efforts
- Payer engagement & Alignment
- Provider Outreach & Education

Consumer Engagement

- Consumer education
- Consumer protections
- Engagement in Care Improvement
- Engagement in Health Improvement

High Level Work Plan for Work Groups

Summer – Early Fall 2014	Fall – Winter 2014	Jan - March 2015	April - June 2015
• Transfers • Market Share • Guardrails • GBR Budget Revenue/Volume Corridors • GBR Infrastructure Investment Reporting • GBR Reporting Template • Care Coordination Opportunities • Industry educ. Alignment options • Consumer Outreach Plan	• Efficiency • Risk Adjusted Readmissions • PAU – Ambulatory • Updates to Current Perf. Measure Policies • Care Coordination recommendations • Medicare data access • Provider outreach and education • Alignment Options development • Consumer Engagement Strategy	• Capital Policy • Evolve alignment models and payment approaches • LTC/Post Acute	• FY 16 UCC • New performance measure development

Appendix: Workgroup Accomplishments to date

Public Engagement Process Accomplishments

- Engaged broad set of stakeholders in HSCRC policy making and implementation of new model
  - Advisory Council, 4 workgroups and 6 subgroups
  - 100+ appointees
  - Consumers, Employers, Providers, Payers, Hospitals
- Established processes for transparency and openness
  - Diverse membership
  - Educational phase of process
  - Call for Technical White Papers – 18 Shared Publically
  - Access to information
  - Opportunity for comment

Workgroup Products (as of 7/1/14)

- **Payment Model**
  - UCC Policy Recommendations
  - Update Factors Recommendation for FY 2015
  - Readmission Shared Savings Recommendation for FY 2015
  - Balanced Update and Short-Term Adjustments
  - Review of Global Budget Contracts
- **Performance Measurement**
  - Maryland Hospital Acquired Conditions
  - Readmissions
  - Draft Efficiency Report
  - Strategy Population-Based Patient-Centered Report (includes Hospital Dashboard)
- **Data and Infrastructure**
  - Data Requirements for Monitoring All-Payer Model
  - Data Infrastructure to Support Care Coordination
- **Physician Alignment and Engagement**
  - Current Physician Payment Models and Recommendations for Physician Alignment Strategies under the All-Payer Model

Clinical Management: A Review of the Evidence and Policy Recommendations

PREPARED FOR THE
MARYLAND HEALTH SERVICES COST REVIEW COMMISSION

BY
JACK MEYER
HEALTH MANAGEMENT ASSOCIATES

JULY 2014

Contents

Acknowledgements

The author would like to thank Stephen Jencks, Amy Boutwell, Art Jones, Laura Herrera, Robb Cohen, and Alice Burton for helpful advice on this report.

Executive Summary

The purpose of this report is to provide a review of evidence about care management initiatives, and a guide to setting priorities, to the Maryland Health Services Cost Review Commission (HSCRC) as it implements the new All-Payer model.

The focus is on identifying promising strategies for improving health outcomes and lowering total spending through improved care management for patients with complex medical needs. The goal is to reduce avoidable ER use, inpatient admissions, readmissions, and hospital outpatient care through better management of these patients, both in primary care settings and through various transitions in care.

This report begins with a review of the evidence about what types of care management initiatives actually lead to savings. The report summarizes evidence from all of the many Medicare demonstrations over the past twelve years, as well as other evidence emerging from the literature. The next part of the report provides examples of promising strategies both within Maryland and in other states. Many of the strategies and programs highlighted here are evidence-based, and have been shown to reduce hospital use and lower health care spending. A few other programs are too new to have this evidence, but employ the same ingredients for success that emerge from the findings reported here.

This is followed by a section that sets clear priorities regarding the investments in care management that HSCRC may want to support. Which types of strategies and initiatives would HSCRC want to encourage first? The intent is not to create a list of programs that HSCRC would *conduct.* Instead, the idea is to identify strategies that are the "best bets," in terms of having a strong evidence base, with HSCRC then *encouraging* hospitals, medical groups, and payers to adopt them.

The final section presents conclusions and policy implications.

The research evidence shows mixed results. A number of chronic care management programs have not shown savings. Dissecting the body of evidence, however, reveals that a number of interventions do work—they reduce ER use, hospital admissions and readmissions, and lower total spending compared to what would occur in regular care delivery and payment settings. This report draws on both individual studies and various summaries of the evidence to pull out the essential ingredients of promising approaches.

This is important because the literature seems quite clear on one point: unless those designing care management programs pay careful attention to identifying these ingredients and building in lessons learned about what works, the odds of achieving noteworthy results are rather low.

Key Elements of Successful Approaches

Three crucial and sequential steps up front

1. **The identification of the patients with the most complex medical needs.** This can be done in two ways. First, the use of data, particularly from Medicare, can help program managers *predict* which people are most likely to be high-cost users of the system. Second, program managers can determine from their own experience which patients *already are* high-cost users. By disease, this is

likely to include patients with congestive heart failure, coronary artery disease, chronic obstructive pulmonary disease, serious mental illnesses, ESRD patients, and women with high-risk pregnancies. People with five or more chronic conditions are also likely to be high users of care. Diabetes, hypertension, and asthma are also amenable to good management through proper care management and self-care.

2. **The development of patient-centric health risk assessments using face-to-face, in-depth interviews**
3. **The early development of customized, individualized care management plans. Some key elements of these plans are:**
    a. **Medication management**
    b. **Effective discharge planning and strong follow-up**
    c. **Good nutrition and oral health**
    d. **Strong linkage between somatic and behavioral health**
    e. **Inclusion of social services as needed** e.g. transportation assistance, transitional housing, language services, family preservation, counseling for young parents, and employment assistance, where appropriate.
    f. **Addressing the "social determinants of health" (e.g. smoking, obesity, environmental hazards) and low socioeconomic status**
    g. **Regular face-to-face interaction between care managers and patients.** Direct interaction can be augmented by telephonic contacts occurring between face-to-face meetings. But telephonic interventions, per se, may frequently not suffice.
    h. **Patient and family involvement in the care plan**

Important reforms in the delivery system

1. **The assurance that care managers have direct interaction and develop a strong rapport with their patients' physicians through in-person contact with the physicians' offices and the hospital.** Care managers should act as a communications hub across providers, and between patients and their providers. They should also ensure that PCPs have all relevant external data on their patients.
2. **Care managers embedded in – or staff members of – primary care practices and with access to patients' electronic medical records.** Hospitals must notify the care managers when patients they work with visit the emergency department or are hospitalized. Care managers should interact directly with patients during their hospital stays and physician office visits, and have access to a pharmacist who can assist with medication management.
3. **Carefully and comprehensively planned transitions of care, prepared by multi-disciplinary teams, particularly following hospital discharge.** Discharge planning should start well before

discharge, and follow-up should include educating patients about early symptom spotting, dietary advice, appropriate medication use, social services, and self-management.

4. **Strong linkages between behavioral health and somatic health.** Particular emphasis should be placed on making primary care physicians aware of danger signals and the need for referrals to behavioral health specialists, as well as encouraging behavioral health providers to ensure that their patients are getting proper treatment for physical conditions that are prevalent in individuals with serious mental illness.
5. **Long-term care facilities that treat many changes in patient conditions on-site**. These facilities can make use of a number of innovative programs that help them address minor patient health problems and avoid unnecessary trips to the emergency department, from which the patient will almost always be admitted to the hospital. Many such admissions are avoidable.

Complementary reforms

1. **Health information technology that is frequent, and highly interactive with patients.** HIT should also facilitate contact with clinicians, and provide information support to clinicians in real time as they are seeing patients.
2. **Care management fees that are at risk, depending on outcomes.** Care management costs should be controlled to the extent possible, through such strategies as ensuring that staff work at the top of their training, and incorporating the services of non-RN and non-LSW staff.

Setting priorities

1. **The first priority in Maryland is to reduce hospital admissions.** Following the key elements of effective care management just described should help achieve that reduction. Too many people in the US are "medically homeless," lack a regular source of care, see many different physicians in various settings, use large numbers of prescription drugs, all in an unmanaged environment. Proper management of their care can reduce admissions.
2. **A second priority could be an all-out effort to reduce readmissions.** Here the focus is on reducing hospital-acquired conditions, following evidence-based practices in surgery and other medical procedures, proper discharge planning, and strong post-discharge monitoring and education.
3. **A third priority is better management of patients in long-term care facilities to avoid unnecessary visits to ERs, and thereby reduce avoidable hospital admissions.**

Introduction

The purpose of this report is to identify the features of care coordination/care management programs that have been shown to be successful in reducing hospital admissions, readmissions, and total health care spending. The report presents a set of specific care management program models that can reduce hospital admissions and smooth transitions of care from the hospital to other settings to reduce readmissions. Priorities are also established based on the interventions that seem like the "best bets" to yield near-term savings.

The goal is to provide guidance to health care providers and public and private payers in Maryland as they design interventions to improve clinical management, particularly for patients with complex medical needs.

The All-Payer model establishes tight targets for the annual per capita growth in total hospital expenditures and for Medicare savings. Because of the importance of demonstrating Medicare savings, this report focuses particular attention on the results of demonstrations and programs related to care management under Medicare.

Background

Patients with multiple chronic illnesses comprise a disproportionate share of health spending, and this is a particular challenge in Medicare. Chronic medical conditions account for more than 75% of total health spending. One quarter of US adults have multiple chronic conditions. Among people 65 years of age and older, 43% have three or more chronic illnesses, and 23% have more than five. In fact, chronic medical conditions associated with modifiable risk factors such as smoking, nutrition, weight, and physical activity represent six of the ten costliest medical conditions in the US, with a combined medical expenditure of $338 billion in 2008.[1]

Just looking at readmissions, we see that Medicare is spending $18 billion annually on 30-day re-hospitalizations. For all US patients, this figure is $25 billion.[2] Citing the HSCRC, Dr. Amy Boutwell notes that Maryland had the highest readmission rate in the US in 2010 among Medicare-eligible patients. Maryland had nearly 16,000 readmissions statewide in 2012. The diagnoses that most frequently lead to readmissions in Maryland include heart failure, sepsis, COPD, pneumonia, renal failure, bipolar disorder, and kidney and urinary tract infections.[3]

Over the past twelve years, Medicare has conducted six major demonstrations testing a variety of approaches to care management and care coordination.[4] A total of 34 care management programs have

[1] Soni, A. 2011. "Top 10 most costly conditions among men and women, 2008: estimates for the U.S. civilian, non-institutionalized adult population, age 18 and older." Statistical Brief # 331. Washington, DC. HHS.
[2] Amy E. Boutwell. "Reducing Readmissions: A Quality Effort at the Heart of System Redesign." Collaborative Healthcare Strategies. Lexington, MA
[3] Boutwell, supra.
[4] The demonstrations are: Demonstration of Care Management for High-Cost Beneficiaries; Medicare Coordinated Care Demonstration; Medicare Health Support Pilot Program; Demonstration of Disease Management for Dual Eligible Beneficiaries; Demonstration of Informatics for Diabetes Education and Telemedicine; and Demonstration of Disease Management for Severely Chronically Ill Beneficiaries.

been studied under these six demonstration programs. The goal of these demonstrations was to reduce hospital admissions by maintaining or improving patients' health and produce savings for Medicare, net of the program costs. CMS paid for providing disease management and care coordination under these programs and in four demonstrations, care management fees were at risk, so that they are retained only if they are offset by reductions in Medicare expenditures.

This report relies strongly on the findings from these demonstrations. It also draws upon the author's earlier synthesis of studies, mostly published in medical journals, focusing on the impact of care management interventions across six chronic illnesses. This study included but was not limited to Medicare.

Findings

The key to understanding how to approach care management designed to reduce ambulatory-sensitive care in high-cost settings is to carefully review the large body of research and many demonstration projects to determine what elements are essential to success. The hard fact is that many of the programs and demonstrations show little or no reduction in hospital admissions, and no net savings. A careful look at a large set of studies, however, reveals nuggets of success amid considerable disappointment. Assembling those nuggets reveals promising approaches that can improve health outcomes and reduce the growth of spending.

Medicare Demonstrations

According to an in-depth review by the Congressional Budget Office of all 34 care management programs established under the six Medicare demonstrations, "On average, the 34 programs had no effect on hospital admissions or *regular* Medicare expenditures (that is, expenditures before accounting for the programs' fees). There was considerable variation in the estimated effects among programs, however. Programs in which care managers had substantial direct interactions with physicians and significant in-person interaction with patients were more likely to reduce hospital admissions than programs without those features. After accounting for the fees that Medicare paid to the programs, however, Medicare spending was either unchanged or was higher in nearly all of the programs.[5]"

A cautionary note

The Medicare care management demonstrations provide useful guidance. But it is important to note that these demonstration projects focus heavily on Medicare patients in the fee-for-service portion of the program. More than one of four Medicare enrollees is enrolled in Medicare Advantage programs. In these cases, managed care organizations may be in a position to implement population-wide care

[5] Lyle Nelson, "Lessons from Medicare's Demonstration Projects on Disease Management and Care Coordination." January 2012. Congressional Budget Office. Working Paper 2012-01. January 2012. These results should be interpreted with the understanding that estimated program impacts for some projects have relatively wide confidence intervals, indicating that they could have reduced or increased hospital admissions and expenditures by a sizeable amount. This means that an actual favorable impact under some programs might not have been detected, and vice versa.

management strategies that are more difficult for individual providers or clusters of providers to accomplish. For this reason, examples of programs involving MCOs are included later in this report.

The Medicare demonstration programs typically included various combinations of the following elements:

- Educating patients about their chronic conditions
- Helping patients monitor their symptoms and follow self-care regimens
- Motivating patients to make beneficial behavioral changes
- Monitoring patients' symptoms and adherence to treatment recommendations
- Adhering to evidence-based practice guidelines
- Providing feedback to patients' primary care physicians
- Having nurses provide key services
- Classifying patients by severity of illness and customizing services accordingly
- Targeting beneficiaries with one or more chronic conditions
- The most commonly targeted conditions were congestive heart failure, coronary artery disease, and chronic obstructive pulmonary disease.
- Ten programs restricted eligibility to patients who had been hospitalized in the previous year.
- In five of the six demonstrations, Medicare paid the programs a monthly fee per beneficiary. The fees were at risk in four of these five programs.[6]

Program Impact

The main findings from the study of the Medicare demonstrations conducted by CBO are as follows:

1. Looking across all 34 programs, the average impact was a 1% decrease in hospital admissions and zero impact on regular Medicare expenditures. For this full set of programs in the six demonstrations, it would have taken a reduction in regular Medicare expenditures of 11% to offset program fees.

2. In programs where care managers had substantial direct access to their patients' physicians, hospital admissions dropped by an average of 7% and regular Medicare expenditures dropped by an average of 6%. Programs that did not do this had zero impact on both hospital admissions and regular Medicare expenditures.

3. The programs in which care managers had significant in-person interaction with patients, plus telephonic interactions, reduced hospital admissions by an average of 7% and reduced regular Medicare expenditures by an average of 3%. In programs in which care managers interacted with patients primarily by telephone, hospital admissions increased by 1% and regular Medicare expenditures were unchanged.

4. In order to offset their fees, however, those two groups of programs would have had to reduce regular Medicare expenditures by an average of 13%.

[6] Lyle Nelson, CBO. supra. pp. 8-9.

5. The programs in which care managers did not have substantial direct interaction with their patients' physicians and those in which care managers interacted with patients primarily by telephone had, on average, no effect on hospital admissions or regular Medicare expenditures.[7]

Five of the programs studied by CBO reduced hospital admissions by at least 10%. Here are some of these programs and their key features:

- Massachusetts General Hospital and its affiliated physician group participated in the Care Management for High-Cost Beneficiaries demonstration. This program reduced admissions by 19-24%. It stood out among all others as being the most closely coordinated with the health delivery system, and featured extensive physician input in the program's initial design and evolution and support from the hospital's senior management. *The care managers are staff members of primary care physician practices and have access to EMRs.* Patients receive the vast majority of their care within the integrated delivery system and the hospital notifies care managers when their patients are hospitalized or admitted to the ER. *Care managers interact with patients by telephone and in person during physician office visits and hospital stays, and have access to pharmacists to address potential problems with medications.[8] Eligibility for the program is directed to patients whose Hierarchical Condition Categories (HCC) scores and past Medicare expenditures exceed specified amounts.[9]*

- The Health Buddy program tries to demonstrate that two multi-specialty medical groups in the Northwest, applying a consistent model of care management augmented by an integrated technology solution, can improve the lives and reduce the costs associated with high-cost Medicare beneficiaries in the fee-for-service part of the program. Care managers used the Health Buddy device—a small table-top computer placed in participants' homes and connected to a server via Ethernet, cellular modem, or a telephone land line. This device provides education and coaching to patients with chronic conditions and enables patients to transmit information on their symptoms and physiological measurements electronically to care managers. In the Wenatchee Valley Medical Center (WVMC) program in Washington State, Phase I focused on patients with diabetes, heart failure, and COPD, with coronary artery disease and hypertension as co-morbidities. In an extension of the program, asthma, chronic pain, and depression were added.

- Results were mixed: An evaluation of the Health Buddy program conducted by RTI showed that costs rose slightly slower in the intervention group in Phase 1 than in the control group, and Medicare's ROI appeared to be $0.54 for each dollar invested. In a supplemental sample that was still part of Phase 1,[10] the slowdown in costs in the intervention group was somewhat greater, resulting in an ROI of $1.92 per dollar invested, and in Phase 2, the savings per dollar

[7] Lyle Nelson, CBO. Supra. p. 12.
[8] Lyle Nelson, CBO. Supra. pp. 14, 17.
[9] HCC scores of at least 2.0 and Medicare expenditures of at least $2,000 per month during a specified baseline period or HCC scores of at least 3.0 and baseline Medicare expenditures of at least $1,000 a month.
[10] The supplemental sample placed greater emphasis on targeting patients that were believed to benefit from the intervention.

invested fell back to $0.48. *None of the differences between intervention and control groups, however, were statistically significant.*[11] The RTI evaluation also found that:

- Less than a third of the intervention group actually used the new device.
- A lower rate of mortality was found, but only among the patients who used the device.
- Hospital readmissions within 90 days and ER visits rose over the course of the demonstration for both the intervention and control groups.
- Survival increased as the medical device gave care managers important information on clinical deterioration allowing for timely intervention to prevent a catastrophic event.[12]

- The CBO conclusions about the Health Buddy program were more positive. While they found no effect of the intervention in the first phase, CBO reports that in the second phase (months 27-38), the intervention was associated with a 12 percent reduction in hospital admissions, and for the supplemental sample added in year two of phase 1, the reduction in hospital admissions associated with the intervention was 26%.[13]
- A care management program run by Mercy Medical Center in Mason City, Iowa located care managers in physicians' offices or the program's main or satellite offices. The care managers accompanied some of their patients on their physician visits, and they used both face-to-face visits and telephonic communication. This program targeted patients who had been hospitalized or treated at an ED at one of its own facilities in the year before the demonstration and had one of the following conditions: CHF, COPD, liver disease, stroke, vascular disease, and renal failure. This program reduced hospital admissions by 17%.[14]
- A review of eleven care management programs participating in the Medicare Coordinated Care Demonstration found that four of them reduced hospitalizations by 8-33% among enrollees who had a high risk of near-term hospitalizations. These programs were run by Washington University of St. Louis; Mercy Medical Center (noted above); Hospice of the Valley in the Phoenix, AZ area; and Health Quality Partners in southeastern Pennsylvania. The other seven care management programs studied by Mathematica did not reduce hospitalizations or regular Medicare expenditures for the high-risk group, and one actually increased expenditures. To take one example of a successful program, Health Quality Partners care managers have substantial in-person interaction with their patients and meet them at the physicians' offices at the time of their appointments. The program was targeted to patients with CHF, CAD, COPD and at least one hospitalization in the prior year, or two hospitalizations in the prior two years and at least

[11] Carol Urato, Nancy McCall, et al. "Evaluation of the Extended Medicare Care Management for High Cost Beneficiaries (CMHCB) Demonstration: Health Buddy West Program, Final report." RTI International. Submitted to CMS. October 2013. p. 133.
[12] Urato et al. supra. pp. 135-139.
[13] Lyle Nelson. CBO. Supra. p. 17.
[14] Deborah Peikes et al. "The Effects of Care Coordination on Hospitalization, Quality of Care, and Health Care Expenditures Among Medicare Beneficiaries: 15 Randomized Trials." *JAMA* vol. 301, no. 6 (Feb 11, 2009):603-618.

one of 12 chronic conditions.[15] This program reduced hospital admissions by 11%. The Mathematica findings also suggested that to generate net Medicare savings for the high-risk population, *care management programs must keep intervention costs to about $125 to $150 per member per month and continually seek ways to increase the effectiveness of the intervention.*[16]

- A study published in *JAMA* in February 2014 presents the results of a three-year evaluation of a patient-centered medical home program in which 32 primary care practices in southeastern Pennsylvania participated. The study found huge increases in both the use of clinical registries (from 30% in 2008 to 85% in 2011) and electronic prescribing (38% to 86%). But the results were very disappointing. A statistically significant increase in performance was found for only one of eleven performance measures: nephropathy screening for patients with diabetes (82.7% vs. 71.7%, treatment vs. control). The intervention was not associated with reductions in hospital admissions, emergency department use, or ambulatory care services over the three years. There was no net impact on spending.[17] A critique of this evaluation contends that blood pressure, LDL, and blood sugar control in patients with diabetes participating in this evaluation far exceeded comparable results from conventional interventions; and that the evaluators reported on only a small percentage of the diabetes measures tracked by the medical practices participating in the program and none of the clinical data-based outcome measures. On one key matter, both the evaluators and the critics note that the program failed in its early phases to identify and focus the interventions on patients with the highest risk of hospitalizations and ED use, and this may have limited the impact of the interventions.[18]
- A review of over 60 evaluations of care management programs conducted by Jack Meyer and Barbara Smith reached conclusions that are consistent with the results presented above. The authors divided the studies by disease category and then dissected the types of interventions according to intensity and frequency of contact, source of intervention (e.g. provider vs. contractor), duration of intervention, degree of engagement with the patient, degree of integration with the care process, patient targeting criteria, and the length of the evaluation window. Some key findings were:
    - Care management programs aimed at CHF yielded consistently positive results. When patients were targeted based on prior hospitalization, reductions in inpatient admissions were most pronounced. Hospital readmissions rates for CHF patients were reduced by 35-45%. Techniques such as weight management, intensive telephone contact supplemented by an in-person meeting in the first few days after hospital

[15] Such patients accounted for 15% of total program enrollment.
[16] Randall S. Brown, Deborah Peikes, Greg Peterson, Jennifer Schore, and Carol M. Razafindrakoto. "Six Features of Medicare Coordinated Care Demonstration Programs That Cut Hospital Admissions of High-Risk Patients." *Health Affairs* June 2012. Vol. 31. No. 6:1156-1166.
[17] Mark W. Friedberg, Eric C. Schneider, Meredith Rosenthal, Kevin G. Volpp, and Rachel M. Werner. "Association between participation in a multi-payer medical home intervention and changes in quality, utilization, and costs of care." *JAMA* February 26, 2014.
[18] Allan Crimm and Don Liss. "Patient Centered Medical Home Evaluations: Let's Keep Them All in Context." *Health Affairs blog.* May 21, 2014.

discharge, titrating medications, and daily automated monitoring were shown to decrease the likelihood of expensive readmissions.

- Interventions aimed at the elderly with multiple chronic conditions are amenable to good care management outcomes.
- Care management aimed at women with high-risk pregnancies yielded a positive ROI. Intensive, individualized pre-natal and post-natal care should be provided to pregnant women with specified clinical presentations placing them at high risk, or who are adolescents and/or unmarried.
- Intensive home environmental assessments and amelioration are helpful for patients with asthma.
- Targeting patients according to predictors of continued high utilization is critical (e.g. recent hospitalizations, multiple chronic conditions). Patients targeted for care management should quickly receive comprehensive health risk assessments. This should be followed by developing individualized care plans for these patients, including self-monitoring, adherence to medication regimens, reporting on conditions, and learning to recognize and act on danger signals.
- In many studies that separately identified pharmaceutical costs, total health spending declined after care management while medication costs increased. Dietician-based management of diabetes can reduce prescription drug costs.
- Depression management may increase total spending initially, in part because of the substantial under-use of mental health services. If investments are made to achieve more intensive care management for people with serious mental illness (SMI), with narrowly targeted populations, potential savings can be achieved. Primary care physicians can be helpful by recognizing the symptoms of SMI and making quick and appropriate referrals.[19]

Addressing the social determinants of health and low socio-economic status

An effective long-term strategy for improving population health and lowering total health care spending requires addressing the "social determinants of health."

As stated by Richard Wilkinson and Michael Marmot:

> Life contains a series of critical transitions: emotional and material changes in early childhood, the move from primary to secondary education, starting work, leaving home and starting a family, changing jobs and facing possible redundancy, and eventually, retirement. Each of these changes affects health by pushing people onto a more or less advantaged path. Because people who have been disadvantaged in the past are at greatest risk in each subsequent transition, welfare policies need to provide not only safety nets but also springboards to offset earlier disadvantage. Good health involves reducing levels of educational failure, reducing insecurity and unemployment and improving housing standards. Societies

[19] Jack Meyer and Barbara Markham Smith. "Chronic Disease Management: Evidence of Predictable Savings." Health Management Associates. November 2008.

> that enable all citizens to play a useful role in the social, economic, and cultural life of their societies will be healthier than those where people face insecurity, exclusion, and deprivation.[20]

Thus, an element of good care management is to move "upstream" from the health care delivery system and make sensible investments to reduce poverty, improve early childhood education, reduce unemployment, promote a healthier environment, and strengthen the public health system. Even as the US continues to over-invest in expensive technologies that lack an evidence base and permits over-building and excess capacity inside the health care system, we frequently fail to make well-targeted investments in efforts such as family preservation initiatives, promoting healthy diets, home visits to identify asthma triggers, and removing lead-based paint.

We also know that many people, particularly those with lower incomes, lack transportation to gain access to health care, and face language barriers.

We need delivery and payment system reforms that reimburse and encourage initiatives addressing these problems even though the savings they will generate are usually not realized quickly.[21]

While the health care spending juggernaut rolls on, the forces that feed it are frequently overlooked. Some 88% of adult regular smokers started smoking by age 18. About 1,000 new children become regular, daily smokers each day while another 4,000 kids try their first cigarette each day.[22] A new report by the United States Surgeon General concludes that if current trends continue, 5.6 million American youth currently less than 18 years of age will die prematurely from smoking during their adult lives.[23]

According to the Centers for Disease Control, the proportion of adults 20 years of age and older with Grade 1 obesity (body mass index [BMI] of 30.0-34.9) increased from 14% to 20% from 1988 through 2007-2010. The corresponding jump over this time span for those with Grade 2 obesity (BMI of 35.0-39.9) was from 5% to 9%, and the proportion with Grade 3 or higher obesity (BMI of 40 or higher) doubled from 3% to 6%.[24] There is clear evidence that the sharp increase in obesity is connected to the rise in the incidence of diabetes and other chronic illnesses. High concentrations of polluted air may lead to and exacerbate children's asthma. Homeless people cycle through ERs and are frequently admitted to hospitals, then returned to the streets with no transitional housing assistance, and little, if any, resolution of the forces in their lives such as diabetes, mental illness, and substance use conditions that lead to the ambulance calls.

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[20] Richard Wilkinson and Michael Marmot. "Social Determinants of Health: the Solid Facts." 2nd Edition. International Center for Health and Society.
http://www.euro.who.int/__data/assets/pdf_file/0005/98438/e81384.pdf

[21] Jack Meyer "Investing in Public Health: A Life-Cycle Approach." Health Management Associates. April 2014.

[22] Centers for Disease Control and Prevention "Smoking and Tobacco Use"
http://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use/

[23] http://www.surgeongeneral.gov/library/reports/50-years-of-progress/exec-summary.pdf

[24] National Center for Health Statistics. supra. p. 5.

Promising program designs and models of clinical management

INTERACT

The INTERACT (Interventions to Reduce Acute Care Transfers) program is a quality improvement strategy focusing on the management of changes in conditions of patients who are residents in long-term care facilities. Interact provides clinical and education tools and strategies for use in everyday practice in these facilities.[25]

The INTERACT program is one of several types of newer interventions with an evidence base showing an impact on reducing hospitalizations and spending.[26] Others include the Transitions in Care Clinical and long-term care facilities such as the Transitional Care Model (discussed below), and efforts led by teams such as Evercare.[27]

INTERACT was originally developed in a CMS-supported contract to the Georgia Medical Foundation, the Medical Care Quality Improvement Organization in Georgia. A detailed analysis of the frequency, causes, and factors associated with hospitalizations of Georgia nursing home residents and an expert panel, were used to develop a toolkit that was pilot-tested in three nursing homes with high hospital admission rates.[28] The toolkit implementation was accepted well, and with the regular guidance of a project nurse practitioner, was associated with a 50% reduction in hospitalization rates, as well as a 36% reduction in the proportion of hospitalizations rated as avoidable through systematic record review by an expert physician panel. With the support of the Commonwealth Fund, the INTERACT toolkit was refined and reviewed by many experts and also informed by the results of focus groups. It was then tested in a collaborative quality improvement project involving 30 nursing homes in three states: Florida, New York, and Massachusetts. In the 25 nursing homes that completed the project and for which baseline and intervention rate data were available, there was a 17% reduction in the rate of all-cause hospitalizations; among the 17 homes rated as "engaged," there was a 24% reduction in hospitalizations.[29]

The INTERACT website includes announcements and articles, an Implementation Guide, an Implementation Checklist that can help nursing homes get started and monitor progress, and a "Contact Us" section for assistance with questions. The INTERACT tools are designed for incorporation into an HIT system.

Dr. Amy Boutwell notes that with a system such as INTERACT, nursing homes can frequently treat such conditions such as a fever, a cough, or similar conditions at their own sites rather than following the

[25] http://interact2.net/index.aspx

[26] Joseph G Ouslander, Alice Bonner, Laurie Herndon, and Jill Shutes. The Interventions to Reduce Acute Care Transfers (iNTERACT) quality improvement program: An overview for medical directors and primary care clinicians in long-term care. *JAMDA* 15 (2014):162-170. http://interact2.net/docs/publications/Overview%20of%20INTERACT%20JAMDA%202014.pdf

[27] Naylor, MD, Brooten, DA, Campbell RI et al. Transitional care of older adults hospitalized with heart failure: A randomized controlled trial. *J Am Geriatr Soc* 2004; 52:675-684; Kane RI, Keckhafer G, Flood S, et al. The Effect of Evercare on hospital use. *J Am :1427-1434.Geriatr Soc* 2003.; 51

[28] Ouslander JG, Lamb G, Perloe M et al. Potentially avoidable hospitalizations of nursing home residents: frequency, causes, and costs. *J Am Geriatr Soc* 2010; 58:627-635.

[29] Ouslander, Bonner, Herndon, Shutes et al. supra. p. 163.

instinct to send all such situations right to the ER, which, she observes, almost always results in an admission, and very frequently, an avoidable one.

The tools help distinguish the real emergencies from the common fluctuations in a patient's condition that can be managed, treated, and evaluated on site. Dr. Boutwell also reports that the people inside the long-term facility with no medical training but frequent patient contact, such as those who deliver meals or clean the rooms, can report apparent changes in a patient's condition, such as if the patient seems confused, has developed a cough, etc. These staff can sometimes be the "eyes and ears" for spotting problems early and reporting them to nurses, helping to ensure that the conditions do not become more serious. In addition, when a patient is sent to an emergency room for a condition such as a urinary tract infection or an upper respiratory infection, frequently that patient could be put on a course of an antibiotic and returned to the long-term care facility for monitoring, rather than be admitted to the hospital.[30]

Clearly, part of the answer to reducing avoidable hospitalizations is to change the way that physicians in the ED are trained, and the ways that they think and act. These physicians may frequently have a bias toward admitting the patient, rather than asking themselves if this patient could be safely returned to their homes, or have their needs met through a short-term stay of two or three days in a skilled nursing facility. This clearly involves a change in mindset and cannot occur overnight, but it will be important to achieving future breakthroughs in reducing avoidable admissions.

Project RED (Re-Engineered Discharge)

Project RED was launched by researchers at Boston University. It reduces quality and safety problems in hospitals and also reduces readmissions while leading to increased patient satisfaction. This initiative is supported by grants from AHRQ and NIH.[31] Project RED has been adapted for use in Skilled Nursing Facilities (SNFs), and has been shown to reduce hospital readmissions in these settings.[32]

The essential components of the RED model are as follows:

1. Ascertain the need for and obtain language assistance.
2. Make follow-up medical appointments and post-discharge tests and labs.
3. Plan for follow-up of results from lab tests or studies that are pending at hospital discharge.
4. Organize post-discharge outpatient services and medical equipment.
5. Identify the correct medications and a plan for the patient to obtain and take them.
6. Reconcile the discharge plan with national guidelines.
7. Teach a written discharge plan that the patient can understand.
8. Educate patients about their diagnoses.

[30] Personal communication with Dr. Amy Boutwell.
[31] http://www.bu.edu/fammed/projectred/
[32] Berkowitz RE, Fang Z, Helfand BKI et al. Project Reeingineering Discharge (RED) lowers readmissions of patients discharged from a skilled nursing facility. *J Am Med Dir Assn* 2013; 14:736-740

9. Assess the degree of the patient's understanding of the discharge plan.
10. Review with the patient what to do if a problem arises.
11. Expedite the transmission of the discharge summary to clinicians accepting care of the patient.
12. Provide telephone reinforcement of the discharge plan.[33]

The Bridge Model

The Bridge Program is a transitional care model that employs Master's-level social workers – called "Bridge Care Coordinators" (BCCs) – to provide support to patients from the hospital to home. The Bridge Program focuses on the social roots of many problems which lead to patients' readmissions, assessing the psychosocial elements of poor health and identifying existing community resources to ensure they are supported and can remain out of the hospital. An estimated 40-50% of hospital readmissions are linked to social problems and a lack of access to community resources.[34]

Utilization of the Bridge Program begins in the hospital pre-discharge, when the BCC reviews the discharge instructions and completes an assessment of the patient's needs, including any health complications. This includes evaluating emotional and psychological needs, as well as identifying available supports like family, friends, and community resources. Post-discharge, the BCC will call the patient within 48 hours, and make second contact – either by phone or in person – within 30 days.[35]

An important advantage of the Bridge program, according to Dr. Boutwell, is that social workers frequently have skill sets that are superior to nurses and other clinicians for this particular set of challenges. The social workers are more adept at taking a comprehensive, holistic look at the "whole person," in the context of available family support. Social workers also are more aware than others of the full range of community services. This includes many social services that are not in the medical model, generally not expensive and frequently central to improving the patient's health outcomes and avoiding future ER use and hospital admissions. While home health nurses can also be important, Boutwell cautions that they frequently escalate the case to a higher level of medical care i.e. by bringing in a physician, who then sends the patient to the ER; from there, the patient is frequently admitted to the hospital. All this occurs in the "medicalized" model of care for patients whose needs in many cases could be served through an array of "low-tech" social and support services in the community.

Bridge in Practice

The Illinois Transitional Care Consortium (ITCC) was formed with several organizations in the field of aging. Bringing together medical providers and community organizations, ITCC sought to employ the best practices in transitional care in the community. ITCC staffed social workers as care coordinators at

[33] Boston Medical Center. Components of Re-engineered Discharge (RED). http://www.bu.edu/fammed/projectred/components.html
[34] www.transitionalcare.org.
[35] The Aging Network and Care Transitions, http://aoa.gov/AoARoot/AoA_Programs/HCLTC/ADRC_CareTransitions/toolkit/docs/AOA_080_Chart6_ExEvidBasedCare.pdf

area hospitals, and used research services from the University of Illinois at Chicago's School of Public Health to track outcomes.[36]

Coleman Care Transitions Intervention (CTI)

The Coleman Care Transitions Intervention (CTI) is a 4 week transitional care program that seeks to support patients to be more active in their care.[37] With help from a "transitional coach," patients receive medication reinforcement, education about their health records, connection to a primary care provider and/or specialist for follow up, and information on their individual "red flags" – to know when their condition is worsening and how to respond. The model promotes patients' self-management of their conditions, but provides consistent support from the transitional coach – via a series of telephone calls and home-visits – to help navigate the various care systems and their challenges.[38]

CTI in Practice

In Maryland, The Coordinating Center[39] is a community coalition that brings together several Baltimore-area hospitals and care providers to provide a comprehensive care transition program called GET WELL. The GET WELL Program focuses on patients with chronic illnesses living in the medically underserved region of West Baltimore, supporting them as they move out of hospitals and return home. Following the CTI model, a GET WELL Transition Coach meets with patients before they are discharged from the hospital. The patient and their caregivers (family, friends) are coached on how to recognize the patient's "red flags," receive detailed information on medication and health records, and are assisted in connecting with important community resources. Post-discharge, the coach will stay in contact with the patient for the next 30 days.[40]

Naylor Transitional Care Model (TCM)

The Naylor Transitional Care Model (TCM) is a longer-term transitional care program that includes comprehensive discharge planning and extensive at-home follow up. TCM employs a Transitional Care Nurse (TCN) to provide a comprehensive assessment of the patient's needs and coordinate care across the spectrum of service.[41] The TCN makes contact with the patient in the hospital, working with care providers and clinical staff to create a care plan, including medication and symptom management. The TCN conducts a home visit within 24 hours of discharge to evaluate the plan of care at home, and works with the patient and family to adjust its goals as needed. Weekly home visits continue for the first month post-discharge, during which time the TCN will accompany the patient to their first follow-up

[36] http://asaging.org/blog/integrating-care-across-settings-illinois-transitional-care-consortium%E2%80%99s-bridge-model
[37] The Aging Network and Care Transitions, http://aoa.gov/AoARoot/AoA_Programs/HCLTC/ADRC_CareTransitions/toolkit/docs/AOA_080_Chart6_ExEvidBasedCare.pdf
[38] Care Transitions Program, http://www.caretransitions.org/structure.asp
[39] The Coordinating Center is a partner in CMS's Community-based Care Transitions Program (CCTP), http://innovation.cms.gov/initiatives/CCTP/CCTP-Site-Summaries.html?_sm_au_=iVVkrjQJrRWFjW4P
[40] http://www.coordinatingcenter.org/featured-programs/community-care-transitions/
[41] The Aging Network and Care Transitions, http://aoa.gov/AoARoot/AoA_Programs/HCLTC/ADRC_CareTransitions/toolkit/docs/AOA_080_Chart6_ExEvidBasedCare.pdf

appointment, assess any other unmet or unanticipated needs, and facilitate communication among all of the patient's caregivers.[42]

TCM in Practice

Three Kaiser Permanente sites in California implemented TCM pilot programs. Advance practice nurses met daily with patients while hospitalized, and scheduled a home visit within 48 hours of discharge. The nurses' interventions sought to manage and monitor the patient's symptoms, provide health care information and training, and assist the patient with medication management. TCM provides longer opportunities for patients to develop self-management skills, increasing confidence in their ability to manage their own conditions over the long term.[43]

Chronic Condition Special Needs Plans (C-SNPs)

C-SNPs provide coordinated care to patients with chronic conditions, tailored to the specific needs of the disease and for patients with only that condition. Care Improvement Plus is an example of a C-SNP, which focuses on Medicare beneficiaries with diabetes. In 2010 Care Improvement Plus had 79,000 Medicare Advantage enrollees in five states.[44]

C-SNPs such as Care Improvement Plus focus on direct patient contact, including home visits, tailored care plans, and patient education and empowerment, to avoid hospital readmissions. The HouseCalls program, for example, sends nurse practitioners to visit the enrollees in their homes. There they can review the patient's care plans, do a comprehensive health risk assessment, identify issues for discussion with the primary care provider or make necessary referrals, and even provide preventive care at that time – such as a physical exam, blood pressure monitoring, and depression screening (among many others). HouseCalls provide a key support for patients as they make the transition from hospital to home, and help educate them on warning signs and what they need to avoid readmission.

In addition to the HouseCalls program, Care Improvement Plus provides an array of supplementary services designed to support and manage the patient's care plan. These services include a nurse care management system which includes an all-hours nurse line; the PharmAssist program which provides direct pharmacist support to patients on medication adherence; social service support, connecting patients to community resources and benefits such as Medicaid; and Transitions of Care, which uses an interdisciplinary team of clinicians and social workers to bridge the gaps in the patient's treatment across the care continuum. The Advanced Illness Program also provides in-home support from nurse care managers on end of life care.

An evaluation of Care Improvement Plus found that it lowered hospital days and readmissions while increasing primary care physician visits for diabetes patients, relative to similar patients in the standard Medicare fee-for-service model. Risk-adjusted hospital days were 19% lower for the C-SNP patients than

[42] http://www.transitionalcare.info/essential-elements
[43] http://www.caretransitions.org/documents/CA_Two_Models.pdf
[44] Robb Cohen, Jeff Lemieux, Jeff Schoenborn, and Teresa Mulligan. Medicare Advantage Chronic Special Needs Plan Boosted Primary Care, Reduced Hospital Use Among Diabetes Patients. 2012. *Health Affairs* Vol. 31, No. 1.

their fee-for-service counterparts (27% for nonwhites). The same-quarter hospital readmission rate for diabetes patients in the five states combined was 21.1 for the C-SNP patients, compared to 26.7 for the FFS patients. Primary care physician office visits were 7% higher for C-SNP enrollees than among those in FFS (20% higher for nonwhites). The research also suggests that there are substantial cost savings from this reduced hospitalization, enough to more than offset the costs of additional primary care services. Overall, these results speak to the program's central aim: connecting patients with the primary care, education and support services they need to better manage their conditions and avoid unnecessary and costly hospital readmissions.[45]

Maryland Hospital Initiatives

Johns Hopkins Medicine, Washington Adventist Hospital, Western Maryland Hospital, and Frederick Memorial Hospital have developed and implemented innovative transitional care programs. These plans tend to be newer than some of the Medicare demonstrations and other care management initiatives discussed earlier, and so do not yet have an evidence base. But they include some of the ingredients of programs that have been shown to be effective, and merit close attention.

Johns Hopkins Community Health Partnership (J-CHiP) program

Johns Hopkins Medicine (JHM) has developed J-CHiP, a community program focusing on care coordination serving 1,000 Priority Partners MCO patients and 2,000 fee-for-service Medicare patients at high-risk for emergency department use and inpatient hospital admissions. The hospital system works with its ambulatory and community care clinics within seven zip codes around Johns Hopkins Hospital (JHH) and Johns Hopkins Bayview Medical Center (JHBMC).

A key focus of the program is on care coordination in primary care settings for patients with chronic diseases and behavioral health conditions. Components include medication management, patient-family education, and post-acute transitions. JHM has also formed partnerships with skilled nursing facilities.[46]

JHM received a three-year, $19.9 million grant from the Center for Medicare and Medicaid Innovation (CMMI) to support this community program.[47]

The target population is patients who are under-served and high-risk in East Baltimore. An estimated 46% of the patients had one or more inpatient admission in 2011 and 30% have six or more chronic conditions.

Predictive modeling uses statistical techniques to project the impact of co-morbidities and other factors on an individual's use of health care resources in the future, which can then be converted to a predicted dollar amount of future spending.[48]

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[45] Robb Cohen, Jeff Lemieux et al. Supra.

[46] http://www.hopkinsmedicine.org/news/media/releases/johns_hopkins_medicine_awarded_199m_innovation_grant_from_cms_for_its_j_chip_program

[47] http://urbanhealth.jhu.edu/J-CHIP/

Washington Adventist Hospital

Washington Adventist Hospital has formed a partnership with a local FQHC, Community Clinic, Inc., to provide on-site primary care. This partnership recognizes the importance of linking patients directly to follow-up care, in order to monitor their conditions so that hospital readmission is avoided. Connecting patients to a primary care provider, when many may not have one, is likewise vital to ensure that patients receive the long-term support needed to avoid future acute episodes.[49]

Washington Adventist is also identifying patients at high risk of hospital admissions. They target patients for assistance such as those who are seniors with congestive heart failure, and may be living alone. There are three levels of intensity of care needs, and care plans reflect those differences. It is important to note that care management programs can be overly targeted to just the sickest patients. While some targeting is needed, particularly to ensure a positive "ROI," many other patients with somewhat less complex medical needs may still benefit from care management and social services. Such patients may have limited language proficiency. They may also have active co-morbid substance use conditions. These needs should not be forgotten in the broader drive toward targeting the highest-need patients noted earlier.

Western Maryland Hospital

Western Maryland Hospital formed a partnership with PharmaCare, a community pharmacy, to provide "bedside pharmacy" services to patients while in the hospital. Services include patient education on medication adherence, comprehensive discharge planning, and easy, direct access to pharmacy services in the hospital. Direct connection to the pharmacists before discharge helps ensure that patients are fully informed before leaving, and have an established relationship on which to rely in case of future questions or concerns. Patients also leave the hospital with a full 30-day supply of their medications.[50]

Frederick Memorial Hospital

Frederick Memorial Hospital offers a Coordinated Care team that assists patients with the transition from the hospital to the next phase of their care. The hospital staff remains connected with the patient after discharge, and they strive to connect the patients with an array of community resources such as home health agencies, the Department of Aging, or hospice care.[51]

The Coordinated Care team makes appointments for patients considered at risk after discharge. This could include appointments at primary care clinics and community mental health centers. Nurse case managers stay in touch with patients over the first thirty days after discharge. Community health workers (CHWs) may also be called upon for help.

Transitional care programs such as Maryland's find inspiration from models like The Bridge, CTI, and TCM. While the models vary in process, they uniformly speak to the importance of providing direct support to patients during hospitalization and throughout the discharge process, linking them with

[48] http://www.xchange-events.com/newsletter-articles/johns-hopkins-medicines-j-chip-program-for-accountable-care-breaks-boundaries/
[49] http://www.adventisthealthcare.com/about/news/2014/washington-adventist-hospital-welcomes-community-clinic/
[50] http://www.cardinal.com/us/en/essential-insights/best-practices/community-hospital-pharmacy
[51] http://blog.fmh.org/index.php/2014/06/20/coordinated-care-offering-support-every-step-of-the-way/

primary care and support services outside the hospital, and providing extensive information on care and medication management. What each makes clear is that best outcomes for patients with chronic care needs occur when they are educated, empowered, and supported across the care continuum.

Management of chronic disease outside the hospital

Geisinger Health System and Geisinger Health Plan: Strong Care Management for Patients with Diabetes

Geisinger uses an "all-or-none bundle approach" to assess and track performance. Under this model, only full compliance with all individual performance metrics is scored a success. Geisinger has been working on improving care management for patients with diabetes for about a decade. For treating these patients, the bundle consists of nine discrete evidence-based care elements, including HbA1c, low-density lipoprotein (LDL), and blood pressure testing and target levels; nonsmoking status; urine protein measurement; and influenza and pneumococcal vaccinations. Diabetic patients are automatically identified prior to their arrival at the clinic. A patient-specific, evidence-informed order entry set is generated (including standing orders for routine testing such as for HbA1c and LDL) that can be accepted by the physician with a single click.

Some key features of the model are:

- Automated reminders are provided to both the clinical team and the patient.
- A self-scheduling option is available for more than 100,000 patients using the Geisinger EHR.
- An after-visit summary is provided to each patient showing results compared to individualized goals
- The risk of failing to achieve the goals is explained to each patient.
- Performance reports are sent to each practice, detailing both individual physician and practice-site performance in comparison to the historical trend and peer sites; patients receive their own performance "report card."
- Financial incentives of up to 20 percent of total cash compensation per physician are linked to patient satisfaction, quality, and value goals, including overall bundle-score improvements.
- Initial results from more than 20,000 diabetic patients were promising, including statistically significant increases in overall diabetic bundle performance, glucose control, blood pressure control, and vaccination rates. Long-term patient health status, population health metrics, and efficiency are being tracked.[52]
- More recent findings show impressive accomplishments. In findings just published, Geisinger calculated "hazard ratios" for 4,095 patients enrolled in the Diabetes System of Care, and compared them to 4,095 similarly situated patients not enrolled. Adjusted hazard ratios for

[52] Ronald A. Paulus, Karen Davis, and Glenn D. Steele. "Continuous Innovation in Health Care: Implications of the Geisinger Experience. *Health Affairs* September 2008:1235-45. http://content.healthaffairs.org/content/27/5/1235.long

myocardial infarction (0.77), stroke (0.79), and retinopathy (0.81) were all significantly lower among patients in the care group compared to the control group. Most of the gains came in the first year.[53]

San Francisco: Department of Health Leads City-wide Delivery System Reform

The San Francisco Department of Public Health (SFDPH) is one of the few large urban health and hospital systems in the nation in which the medical delivery system operated by local government (hospital, clinics, skilled nursing facilities), behavioral health services (inpatient, outpatient, care management, residential mental health, and addiction programs), and population/public health are all under one department. SFDPH is coordinating their service delivery programs (both medical and behavioral health) into one integrated delivery system through the creation of the SF Health Network.

San Francisco presents a good guide for Maryland in terms of setting priorities among immediate, short-term challenges, and longer-term system reform toward a population health approach, that will take a number of years to build.

A key component San Francisco's first step—the complete redesign of the delivery system—involved building a working collaborative comprised of all the major hospitals in the city and a large number of FQHCs. Some 30 clinics in all participate, many of which are affiliated with the San Francisco Community Clinic Consortium (SFCCC). One important component of the reforms was the establishment of a system for immediate, on-site referrals of people who presented in the emergency room with non-emergent situations. Each patient is directed to a community health center or other primary care site that is convenient for them, i.e. easily accessible from where they live. ED staff members set up an initial appointment at this primary care site. This might be in the evening or weekend if that synchronizes more with the patient's work schedule. A reminder call to the patient is placed the day before the appointment. The records from the ED visit are sent to the clinic, electronically in most cases.

This is an example of creating a smooth hand-off from ED to PCP, a different type of transition than the post-hospital discharge transitions presented in earlier examples.

Future efforts will be aimed at collaborations with other providers of care and with non-health elements within the City and County of San Francisco (i.e. education, economic development, housing). It was seen as critical, however, for the department to get its own "house in order" before involving the broader community. Several of the traditional public health categorical programs (maternal and child health, tuberculosis, and STD clinics) are being integrated into the delivery system network. There is interest in pairing the surveillance role of the public health unit (i.e. identifying problem areas for certain conditions) with delivery system interventions targeting these problems. The public health unit also offers the ability to better monitor overall health status impacts and provide feedback to the delivery system. Finally, the ability of the public health unit to address environmental health regulations offers

[53] http://www.xghealth.com/xg-health-press-releases/geisinger-study-finds-diabetes-care-bundle-produces-better-health-outcomes

further opportunities to collaborate, and this will be part of a longer-term agenda to tackle the "social determinants" of health.[54]

Hennepin County, Minnesota

In Hennepin County, Minnesota (Minneapolis, St. Paul area), the Department of Health and Hennepin Health, a managed care organization serving poor childless adults in Medicaid, have formed a partnership with the North Point Health and Wellness Center, the County Human Services Department, and the Hennepin County Medical Center, to address forces that fall outside of the medical model and involve the socioeconomic factors that contribute to poor health.[55]

The county conducted a survey of 1,200 people who are high-utilizers of care in high-cost settings such as emergency departments and inpatient hospital stays in order to ascertain the "social determinants" of their health problems. *The survey revealed that the leading causes of high health care utilization are hunger and food inadequacy, persistent unemployment, a lack of access to medications, and complete social isolation.*

The county is responding to these needs by taking a portion of the savings from its ER diversion and other successful care management initiatives that are lowering hospital admissions and readmissions, and reinvesting them in supportive services that are rarely included in the medical model, including employment, nutrition, and housing services. Using a very innovative program called "Employment Pays," Hennepin Health has formed partnerships with local employers to provide job opportunities for poor childless adults. Many participants have not worked in years and need mentoring and skill development to learn how to navigate the world of work. Once placed in a job, the person receives ongoing support from Hennepin Health.[56]

Frequently, people using the Employment Pays initiative have utilized the chemical dependency treatment program at Hennepin Health to address addiction to drugs and alcohol. In addition, transitional housing services that help people find supported housing if they are either homeless, or on the edge of becoming homeless, are available. The county has also hired community health workers and placed them in "Health Care for the Homeless" locations, the county hospital, and clinics. Hennepin County's strategy is to go to the roots of the problems that are driving low-income adults into repeated encounters with the health care system—inadequate housing, long-term joblessness, substance use, and mental illness. Medicaid spending will also be reduced as fewer people cycle repeatedly through emergency department visits and hospital stays.[57]

[54] Dawn Hamilton, Margaret Kirkegaard, Jack Meyer, et al. "The Evolving Role of Public Health: New Approaches to Health Care Delivery." Health Management Associates. April 2014.
[55] http://www.hennepin.us/healthcare
[56] http://www.hennepin.us/healthcare
[57] http://www.hennepin.us/healthcare

Setting Priorities

Many promising care management strategies are available, some based on long-term investments that will improve population health. These investments are encouraging, and it is important that planning on them proceed. Maryland has a number of such initiatives underway to engage in a community-based approach to public health.

These initiatives, however important, will take years to produce savings; over the long term, they may be the most important key to better health and lower overall spending. In the meantime, Maryland needs to reduce hospital use, and this will require quicker results.

The findings from this paper lead to the following set of priorities:

1. **The Number One priority for achieving the goals of the new Maryland All-Payer Model is to reduce hospital admissions. HSCRC should encourage all Maryland hospitals to adopt the types of promising interventions presented in this report.** These interventions may draw upon the real-world models highlighted in this report, which can lead to reduced hospital admissions. It will be helpful to bring the most effective models of care management in primary care settings to wider use in Maryland. This includes patient-centered medical home programs with payment reforms that provide strong financial incentives for primary care providers to work with payers to control total health spending. But many people will remain "medically homeless" and can benefit from effective care management programs across the continuum of care.
2. **Payment systems must encourage this type of care management by financing the types of strategies recommended in this report.** Net savings will also be facilitated by placing care management fees at risk, depending on the achievement of quality and cost savings goals.
3. **The second priority is for hospitals to work with community partners to develop very strong programs to reduce hospital readmissions.** The ingredients include the identification of high-risk patients, individualized care plans, pre-discharge planning, post-discharge home visits, medication management, early symptom spotting, and careful patient monitoring using electronic reporting of patient conditions from home to nurses and physicians.
4. **A third priority is for long-term care facilities to adopt the types of models presented in this report under which they can quickly identify and effectively treat minor changes in patient conditions on-site.** This will avoid many preventable trips to the ER, which all too frequently lead to avoidable and expensive hospital admissions.

Conclusions and Policy Implications

Reducing avoidable ER use, inpatient admissions, readmissions, and hospital outpatient care will be critical to meeting tight revenue caps. A careful assessment of myriad care management interventions conducted over the past ten to twelve years shows that achieving success is actually quite difficult. Many promising care management/care coordination programs have not led to identifiable savings.

Yet, a cluster of characteristics of successful interventions emerges from a close reading of the many published evaluations. While much of the research and evaluation has focused on Medicare, the findings seem consistent across various types of patients and payers.

The first step is to identify people who are at high risk of being in poor health and generating a large amount of spending.

The literature consistently shows that care management programs that fail to identify the highest-risk patients and instead serve a broad range of people including many with "lighter" needs are unlikely to yield net savings. High-risk patients should be targeted for care management programs. This can be based on hospital admissions in the prior year, a pattern of ED use, and the presence of certain chronic diseases known to require ongoing and intensive management. At the top of this list is CHF, but it is followed closely by COPD, CAD, ESRD, and severe mental illness (psychosis, bipolar condition, and serious depression). Diabetes, hypertension, and asthma are also amenable to better outcomes and lower spending through good care management. Patients with multiple chronic diseases are at particularly high risk.

Another approach is to select a certain number of patients who are generating a very disproportionate share of total health spending, determine their needs and characteristics, and how many are in a care management system presently. For example, about 800,000 Maryland residents are in Medicare, so perhaps the top 10% of spenders in this program, or 80,000 people, could be identified.

The second step is a health risk assessment. This should be comprehensive and typically done on a face-to-face basis.

The third step is that patients identified as high-risk should be quickly given an individualized, patient-centric care plan. The patients and their families should be involved in both the preparation and execution of this plan.

Key elements of reforms

The integration of behavioral health and somatic care is essential. In the U.S., people with serious mental illness have an average life expectancy of 49 to 60 in states studied by Colton and Mandersheid.[58] This is similar to life expectancy in many sub-Saharan African nations (e.g. Sudan, 58.6 and Ethiopia, 52.9).[59]

The challenge to integrate behavioral and somatic health should be thought of as a two-way set of responsibilities. First, primary care and specialist physicians should be educated to recognize the danger signals of serious mental illness and make appropriate referrals to behavioral health providers. Second, behavioral health providers, for their part, must ensure that their patients are getting proper treatment for physical health conditions that are prevalent in individuals with serious mental illness. This includes diabetes and heart disease, among other medical conditions. Antipsychotic medications are highly associated with severe Type-2 diabetes.

[58] Craig W. Colton and Ronald W. Mandersheid. Congruencies in increased mortality Rates, Years of Life Lost, and Causes of Death Among Public Mental Health Clients in Eight States. *Prev Chronic Dis.* April 2006; 3(2):A 42.
[59] United Nations, Department of Economic and Social Affairs, Population Division (2007). World Population Prospects: The 2006 Revision, Highlights. Working Paper No. ESA/WP.202.

Co-location of physical health and behavioral health providers could address both types of challenges. A successful care management strategy must break down the silos that separate our regular medical delivery system from mental health services, and the latter must be adequately funded.

The use of inter-disciplinary, multi-dimensional teams to deliver care is very important. These teams should be comprised of the patient's PCP, the various specialist physicians who see the patient (who should regularly huddle about the patient's medical situation), as well as a PA, an NP, and/or nurses, and a pharmacist. These teams should also include non-medical professionals as well, including nutritionists, social workers. As shown in the examples from Frederick Memorial Hospital and Hennepin County, community health workers can also play an important role by connecting patients to a wide range of community resources and breaking down access barriers.

Care managers should arrange for in-person visits with patients. Telephonic check-ins can effectively complement face-to-face visits, but are not a substitute and as a stand-alone strategy are unlikely to be successful. Home visits can include checking the patient's home for dangers such as asthma triggers and fall risks, as well as medication fills and refills, and whether the patient is alert to danger signals. Accompanying patients on their physician visits is also an important, valuable role for care managers. When possible, embedding care managers in the PCP practices is an even greater assurance that chronic conditions will be properly managed.

Having the care managers "onsite" in a primary care practice setting will help avert flare-ups and complications of chronic illnesses. Care managers should also spend time at the bedside with their patients when they are hospitalized.

Further, care management fees must be held down to very reasonable levels in order for the benefits in the form of reduced ER use or reduced inpatient admissions to generate savings that are larger than the program costs. This will require that much of the work be done by people who are very valuable, but frequently not physicians and sometimes not highly trained nurses. Otherwise, even properly designed programs that yield savings will find that the costs of the program exceed these savings.

Care managers should ensure that their patients' primary care physician has all of their records from service use well beyond the PCP setting. Having an electronic medical record is important. But the information must be comprehensive, shared in a secure way, and used by physicians and hospitals in real time as they see patients in their offices or at the bedside.

Medication management is critical to success. This involves both avoiding errors in writing prescriptions and ensuring patient adherence to drug regimens.

Social services should complement medical services. This could include nutrition, smoking cessation, weight control, transportation, and language services. A lack of transportation to medical appointments is a major barrier to effective care management.

The Impact of Care Management on Utilization and Spending

Jack Meyer
Health Management Associates
Presented to HSCRC—July 9, 2014

Purpose of the Report

- Review the research evidence on care management for patients with complex medical conditions
- Identify the ingredients of success
- Establish priorities for HSCRC
- Policy implications and recommendations

Review of Research Evidence

- Medicare care management demonstrations
  - Taken as a whole, no net impact
  - But dissecting the aggregate evidence shows that certain approaches show strong results
- Wide range of other studies show mixed results but also point the way to success

Key Ingredients of Success

- Identification of patients with complex needs
- In-depth health risk assessments
- Early development of care plans
- Implementation of these care plans

Identifying Patients with High Needs

- This can be done on a predictive basis
  - e.g. predictive modeling
- Another approach: actual use/conditions
  - Recent inpatient stay, 3+ ED visits
  - Chronic diseases: CHF, COPD, ESRD, SMI, diabetes, asthma, hypertension
  - Patients with multiple diseases are at high risk
  - Top spenders

Health Risk Assessment

- HRAs include: extended questionnaire, risk scores, face-to-face feedback to patients
- Include physiological data and lifestyle information (exercise, smoking, diet)
- Demographic data
- Estimate a level of risk
- Recommend interventions

Individualized Care Plan

- Key ingredients
  - Individualized, patient/family involvement
  - Effective discharge planning and follow-up
  - Home visits by care managers
  - Medication management
  - Strong linkage between somatic/behavioral health
  - Addressing transportation, nutrition needs
  - Addressing social determinants (e.g. lack of safe housing, poverty, unemployment, air quality)

Delivery System Reforms

- Care managers have direct interactions with their patients' physicians, hospitals
- Care managers embedded in, or employees of primary care practices
- Careful care transitions, smooth hand-offs
- Multi-disciplinary team-based care
- Long-term care facilities treat minor changes in health conditions on site

Complementary Reforms

- HIT that is interoperable and highly interactive
- Meaningful use of HIT by providers in real time
- Care management fees at reasonable levels
- Care management fees at risk

Promising Programs

- INTERACT
- Project RED
- Bridge Model
- Coleman, Naylor models
- Care Improvement Plus
- J-CHiP, Frederick Memorial
- Washington Adventist, Western Maryland

Additional Programs

- Geisinger Diabetes Control
- San Francisco Department of Health
- Hennepin County

HSCRC Priorities

- Reduce hospital admissions
- Reduce hospital readmissions
- Reduce trips to ER, admissions among patients in long-term care facilities

Policy Implications

- HSCRC can play a useful role in support of the All-Payer Model Design goals by:
  - Encourage MD hospitals to adopt best practices in identifying hi-risk patients, conducting HRAs, developing good care plans
  - Use multi-dimensional teams, in-home visits
  - Link behavioral and physical health
  - Embed care managers within physician practices

Policy Implications

- Medication management is critical
- Interdisciplinary, multi-dimensional teams
- PCP has all records of service use
- Social services included in care plan
- Interoperable HIT used in real time by providers
- HSCRC could promote a “checklist” of promising practices for care management

Maryland's Hospitals & Care Coordination

Carmela Coyle
President & CEO
Maryland Hospital Association

Care Coordination

- Not well defined
- In Medicare, mixed results
- Maryland is different
  - Testing in all payer environment
  - Significantly greater incentives
- Maryland hospitals focused on waiver success

MHA Initiatives

- Learn – TPR Experience
- Partner – Dr. Amy Boutwell
- Convene – State care continuum partners
- Collectively Strategize – Portfolio approach/Best practices

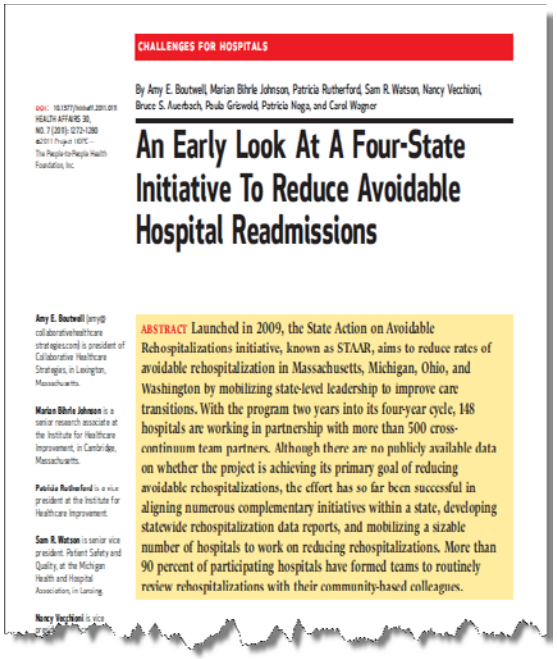
Learn – TPR Experience

Learn – TPR Experience

- Pre-Acute Care
  - Added primary care practices
  - Created PCMHs
  - Developed high risk clinics
  - Partnered with urgent care centers
- Acute Care
  - Targeted high utilizers
  - Reviewed readmissions daily
  - Expanded care coordination: behavioral health and ED
  - “Discharge” redefined to 1st primary care visit
  - Discharge with meds
- Post-Acute Care
  - Care coordination teams
  - Expand home care resources
  - Community health workers
  - SNF transition care

Partner – Dr. Amy Boutwell

- Co-designer IHI STAAR Initiative, first state/community based approach to reducing readmissions
- Advisor, national coordinating center for the CMS Care Transitions Aim
- Advisor, CMS Learning Systems for ACOs and Bundled Payments
- Co-Principal Investigator, AHRQ Reducing Medicaid Readmissions Project



CHALLENGES FOR HOSPITALS

By Amy E. Boutwell, Marian Bihrle Johnson, Patricia Rutherford, Sam R. Watson, Nancy Vecchioni, Bruce S. Auerbach, Paula Griswold, Patricia Noga, and Carol Wagner

An Early Look At A Four-State Initiative To Reduce Avoidable Hospital Readmissions

ABSTRACT Launched in 2009, the State Action on Avoidable Rehospitalizations initiative, known as STAAR, aims to reduce rates of avoidable rehospitalization in Massachusetts, Michigan, Ohio, and Washington by mobilizing state-level leadership to improve care transitions. With the program two years into its four-year cycle, 148 hospitals are working in partnership with more than 500 cross-continuum team partners. Although there are no publicly available data on whether the project is achieving its primary goal of reducing avoidable rehospitalizations, the effort has so far been successful in aligning numerous complementary initiatives within a state, developing statewide rehospitalization data reports, and mobilizing a sizable number of hospitals to work on reducing rehospitalizations. More than 90 percent of participating hospitals have formed teams to routinely review rehospitalizations with their community-based colleagues.

Convene – State Continuum Partners

Convene – State Continuum Partners

- Focus on readmission reduction

"Rehospitalization is a system issue and the problem does not lie with one organization or one provider, but with the community and the local health care system. Addressing this issue will require organizations and providers to work together."

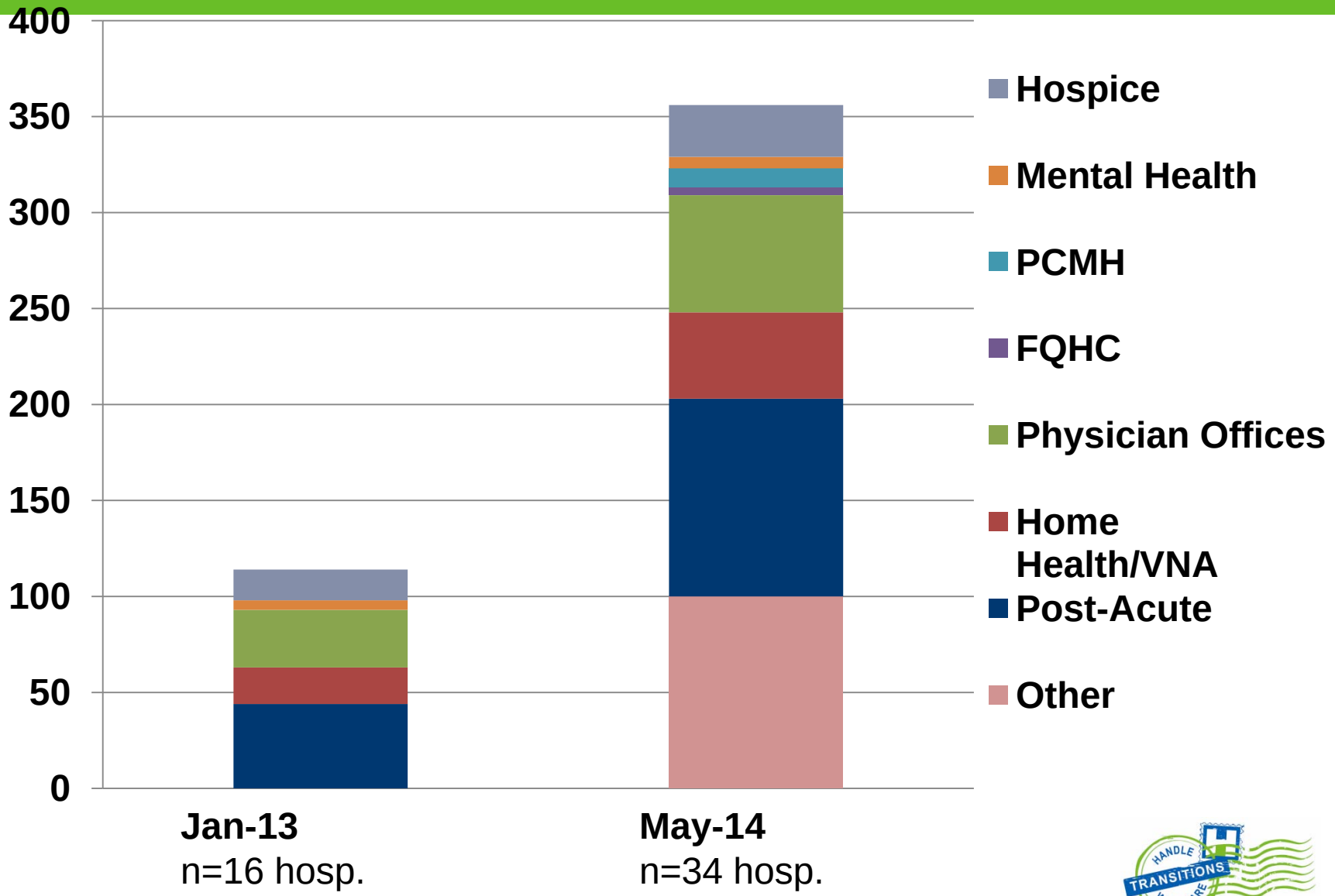
- *Anne-Marie Audet, VP, The Commonwealth Fund*

Who is High Risk?

MHA's Initiatives

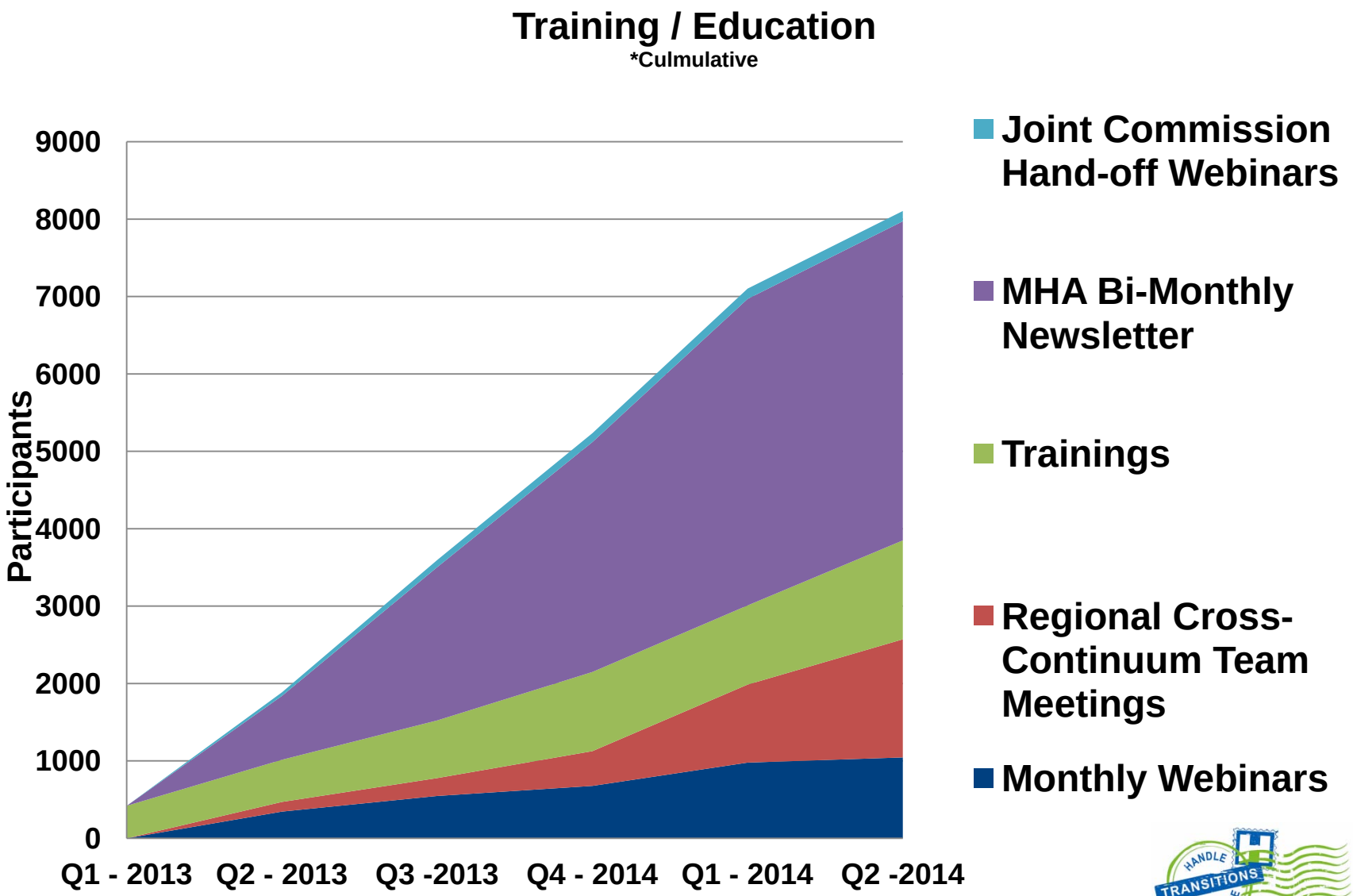
- Launched *Transitions: Handle with Care* campaign in January 2013
- Multi-stakeholder, statewide initiative to reduce readmissions by:
  - Fostering collaboration within state and across settings
  - Using data strategically
  - Implementing evidence based strategies at the local level

Cross-Continuum Team Representation



Partners Preventing Avoidable Readmissions

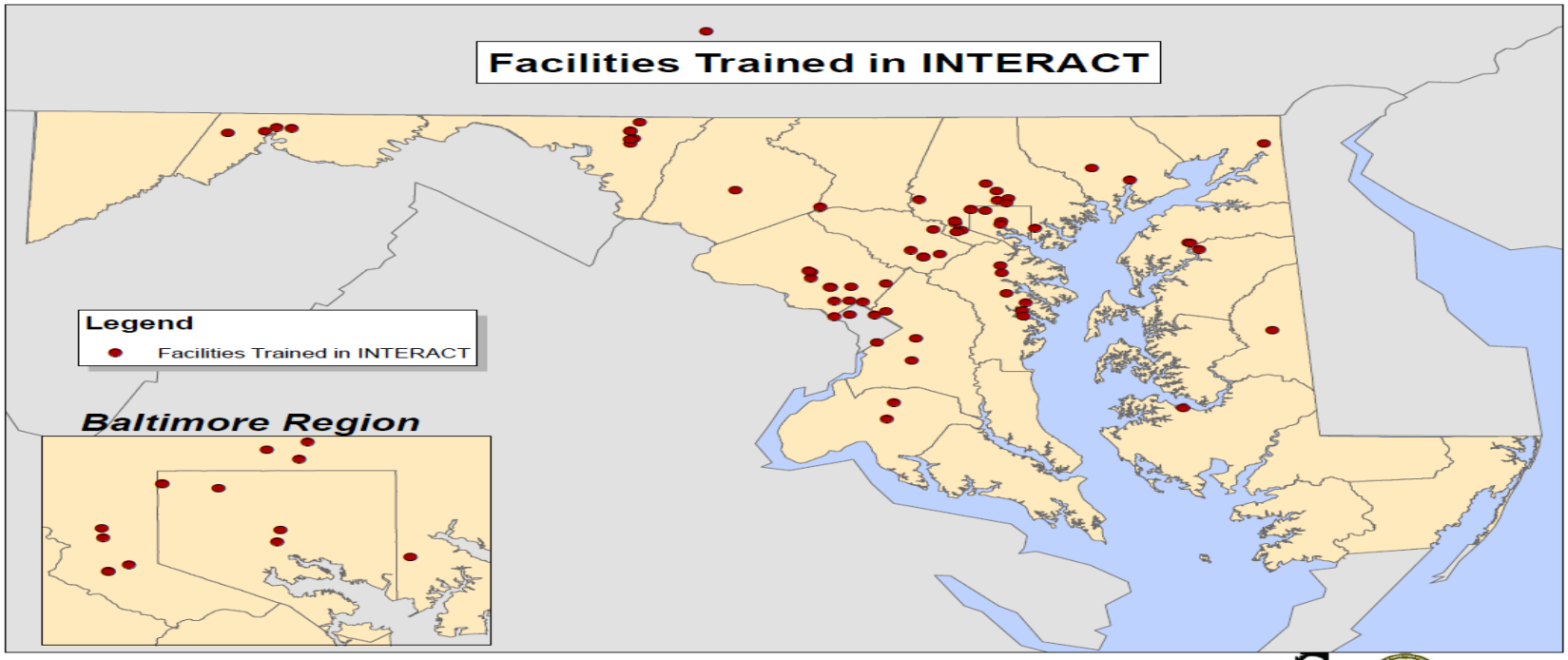
Points of Education and Collaboration
March 2013-May 2014



HANDLE TRANSITIONS WITH CARE
Partners Preventing Avoidable Readmissions

Post Acute Interventions

- MHA sponsored training conducted by INTERACT founders for 86 post acute facilities and 10 hospitals



Source: Community Health Resources Commission
September 2013

CHRC

Partners Preventing Avoidable Readmissions

Calendar of Events

Transitions: Handle With Care
Shared Calendar of Events

February 2013
26 Materials: Pre-work for March 19 meeting, including data analysis, readmission interviews, cross-continuum team composition, sample invitation letters, and sample agenda.

March 2013
19 *Transitions: Handle with Care* Statewide Launch Meeting

April 2013
23 Steering Committee Meeting (1st)
23 Using Data to Improve Care Transitions Webinar

May 2013
9 Lifespan Leadership Summit on the Role of Post Acute Services in Health Reform
22 How HIE Can Help You Improve Transitions Webinar
22 Issue Brief: Using HIE to Improve Transitions & Reduce Readmissions

June 2013
4 Senior Care Provider Roundtable, Williamsport
19 Improving Care Transitions for Patients with Behavioral Health Needs Webinar
26 INTERACT Training
27 INTERACT Training
27 Steering Committee Meeting (2nd)

July 2013
17 Frederick Memorial & Boutwell: Medicaid Readmissions

August 2013
6 Multi-payer PCMH Learning Collaborative (keynote and 3-hospital panel)
6 University of Maryland Baltimore Washington Medical Center Site Visit
13 Senior Care Provider Roundtable, Southern Maryland
20 Frederick Memorial & Meritus Cross-Continuum Team Regional Meeting
20 Frederick Memorial & Boutwell: Behavioral Health Transitions
21 Involving Patients and Families in Reducing Avoidable Readmissions Webinar

September 2013
18 The Role of Pharmacists and Local Pharmacies in Reducing Avoidable Readmissions Webinar
18 Maryland National Capital Homecare Association Annual Meeting
18 Maryland National Capital Homecare Association - Breakout Session
19 Steering Committee Meeting (3rd)
23 MHA, MedStar Health and Genesis presenting to the Maryland Health Care Reform Coordinating Council's Healthcare Delivery Reform Subcommittee
23-26 Lifespan/HFAM: 2013 Art of Caring Conference: Together We Can

October 2013
15 Maryland Association of Adult Daycare Conference

Collectively Strategize

- Portfolio Approach
  - Sepsis

Percent of Total Deaths by APR-DRGs
FY2013

DRG	Description	% Total Deaths
720	Septicemia & disseminated infections	29.69
133	Pulmonary edema & respiratory failure	5.02
194		
190		
710		
139		
137		
44		
130		

Distribution of Top 50 APR-DRG Categories at Index Admission (First Hospitalization) of All-Cause, All Hospital Readmissions, Maryland CMS Methodology All-Payor FY2013

APR DRG	Descriptions	# Index Admissions w/ Readmission
194	Heart failure	4,007
720	Septicemia & disseminated infections	3,440
140	Chronic obstructive pulmonary disease	3,079
139	Ot	
753	Bi	
460	Re	
750	Sc	
463	Ki	
751	Mi	
201	Ca	

PPC	ALL PAYER PPC Description	PPCs Expected	PPCs Actual	PPC Weighted Impact
PPC 4	Acute Pulmonary Edema and Respiratory Failure with Ventilation	1,069.72	1,209	$ 39,634,647
PPC 65	Urinary Tract Infection without Catheter	2,388.77	2,048	$ 29,313,024
PPC 14	Ventricular Fibrillation/Cardiac Arrest	1,250.11	1,375	$ 27,780,500
PPC 24	Renal Failure without Dialysis	3,660.69	3,355	$ 27,672,040
PPC 5	Pneumonia & Other Lung Infections	1,288.80	1,169	$ 24,418,072
PPC 3	Acute Pulmonary Edema and Respiratory Failure without Ventilation	2,326.32	2,209	$ 21,665,872
PPC 9	Shock	1,141.40	1,063	$ 20,538,223
PPC 35	Septicemia & Severe Infections	1,052.88	1,060	$ 19,984,180
PPC 21	Clostridium Difficile Colitis	1,028.00	1,030	$ 17,934,360
PPC 40	Post-Operative Hemorrhage & Hematoma without Hemorrhage Control	1,515.83	1,512	$ 14,846,328

Collectively Strategize

- Portfolio Approach

	Number	Rate
# Medicare admissions/year	5,000 admissions	
Medicare readmissions rate		20%
# Medicare readmissions/year	1,000 readmissions	
1. Improve standard care	5,000 admissions	20% readmissions rate
Expected effect		10%
# Expected readmissions reduction	100 readmissions avoided	
2. Collaborate with receivers	1,650 admissions (1/3 total)	30% readmissions rate
Expected effect		20%
# Expected readmissions reduction	99 readmissions avoided	
3. Enhanced service for pilot	200 admissions	25% readmissions rate
Expected effect		20%
# Expected readmissions reduction	10 readmissions avoided	
Hospital-wide readmissions impact	**209 readmissions avoided**	**209/1000= 20% overall**

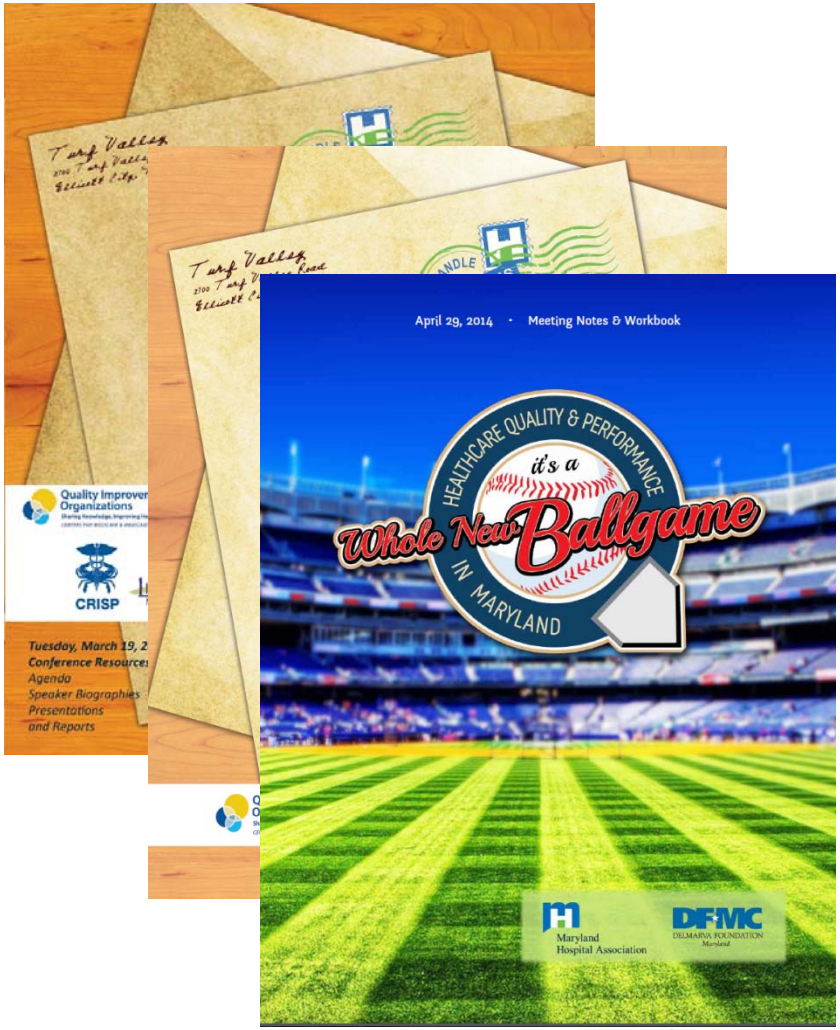
Collectively Strategize

- Share best practice

Webinars

(all presentations and recordings are available online)

- *Knowing Your Readmissions Data: The First Step to Effective Change*
- *Improving Care Transitions for Mental Illness and Substance Use Disorder*
- *Involving Patients and Families in Reducing Avoidable Readmissions*
- *The Role of Pharmacists and Local Pharmacies in Reducing Avoidable Readmissions*
- *Partnering with Medicaid Managed Care*
- *Nursing Homes – Reducing Unnecessary Hospital Transfers, Admissions and Readmissions*
- *Improving Care Transitions between Hospital and Home Health*
- *Addressing Health Care Disparities and Health Literacy to Reduce Hospital Readmissions*
- *Partnering at the Local Level to Reduce Behavioral Health Readmissions*
- *Strategies for Success Under New Medicare Waiver: Part 1*
- *Strategies for Success Under New Medicare Waiver: Part 2*



HANDLE WITH CARE TRANSITIONS
Partners Preventing Avoidable Readmissions

Collectively Strategize

- Examples from the Field
  - Patient & Family Engagement
    - Anne Arundel Medical Center's SMART Discharge Tool
  - Care Preferences
    - Meritus Medical Center
  - Community Partnerships
    - Sinai Hospital and Health Care Access Maryland

Maryland's Hospitals & Care Coordination

Carmela Coyle
President & CEO
Maryland Hospital Association

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

AS OF JULY 1, 2014

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
2248N	Baltimore Washington Medical Center	5/1/2014	7/9/2014	9/29/2014	ANS/ORC	CK	OPEN
2250A	University of Maryland Medical Center	6/4/2014	N/A	N/A	N/A	DNP	OPEN
2251A	MedStar Health	6/19/2014	N/A	N/A	N/A	DNP	OPEN
2252A	MedStar Health	6/19/2014	N/A	N/A	N/A	DNP	OPEN
2253N	Fort Washington Medical Center	6/26/2014	7/26/2014	11/24/2014	CL	CK	OPEN

PROCEEDINGS REQUIRING COMMISSION ACTION - NOT ON OPEN DOCKET

IN RE: THE PARTIAL RATE	*	**BEFORE THE HEALTH SERVICES**
APPLICATION OF THE	*	**COST REVIEW COMMISSION**
BALTIMORE WASHINGTON	*	**DOCKET: 2014**
MEDICAL CENTER	*	**FOLIO: 2058**
GLEN BURNIE, MARYLAND	*	**PROCEEDING: 2248N**

Staff Recommendation

July 9, 2014

Introduction

On May 1, 2014, University of Maryland Baltimore Washington Medical Center (the "Hospital"), a member of the University of Maryland Medical System, submitted a partial rate application to the Commission requesting a new rate for Anesthesiology (ANS) and Operating Room Clinic Services (ORC). The Hospital requests that the ANS and ORC rates be set at the lower of a rate based on its projected costs to provide ANS and ORC services or the statewide median and be effective July 1, 2014.

Staff Evaluation

To determine if the Hospital's ANS and ORC rates should be set at the statewide median or at a rate based on its own cost experience, the staff requested that the Hospital submit to the Commission all projected cost and statistical data for ANS and ORC for FY 2014. Based on information received it was determined that the ANS and ORC rate based on the Hospital's projected data would be $4.99 per minute and $17.05 per minute respectively while the statewide median for ANS and ORC services is $2.15 per minute and $16.57 per minute respectively.

This rate request is revenue neutral and will not result in any additional revenue for the Hospital as it only involves carving out ANS and ORC services from the current approved revenue for Operating Room services. The Hospital currently charges ANS and ORC as a rollup to its OR rate. The Hospital wishes to carve these services out to reflect a more accurate cost finding. The new proposed rates are as follows:

	Rate	Budgeted Volume	Approved Revenue
Operating Room	$26.19	1,314,479	$34,430,155
Anesthesiology	$2.15	1,442,813	$3,076,489
Operating Room Clinic Services	$16.57	187,208	$3,102,048

Recommendation

After reviewing the Hospital's application, the staff recommends as follows:

1. That an ANS rate of $2.15 per minute be approved effective July 1, 2014;

2. That an ORC rate of $16.57 per minute per be approved effective July 1 2014;
3. That an OR rate of $26.19 per minute be approved effective July 1, 2014;
4. That the ANS, ORC, and OR rates not be rate realigned until a full year's cost experience data have been reported to the Commission; and
5. That these new services will be subject to the provisions of the new volume or Global Budget policies.

IN RE: THE APPLICATION FOR	*	**BEFORE THE MARYLAND HEALTH**
ALTERNATIVE METHOD OF RATE	*	**SERVICES COST REVIEW**
DETERMINATION	*	**COMMISSION**
UNIVERSITY OF MARYLAND	*	**DOCKET: 2014**
MEDICAL CENTER *		**FOLIO: 2060**
BALTIMORE, MARYLAND	*	**PROCEEDING: 2250A**

Staff Recommendation

July 9, 2014

I. INTRODUCTION

University of Maryland Medical Center ("Hospital") filed an application with the HSCRC on June 4, 2014 for an alternative method of rate determination pursuant to COMAR 10.37.10.06. The Hospital requests approval from the HSCRC for continued participation in global rates for solid organ transplant and blood and bone marrow transplants for one year with Aetna Health, Inc. beginning August 1, 2014.

II. OVERVIEW OF THE APPLICATION

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

IV. IDENTIFICATION AND ASSESSMENT OF RISK

The Hospital will 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 between UPI and the Hospital holds the Hospital harmless from any shortfalls in payment from the global price contract.

V. STAFF EVALUATION

Staff reviewed the experience under this arrangement and found it to be favorable. Staff believes that the Hospital can continue to achieve favorable performance under this arrangement.

VI. STAFF RECOMMENDATION

Based on the Hospital's favorable performance, staff recommends that the Commission approve the Hospital's application for an alternative method of rate determination for solid organ transplant, gamma knife, and blood and bone marrow transplant services, for a one year period beginning August 1, 2014. The Hospital will need to file a renewal application to be considered for continued participation.

Consistent with its policy paper regarding applications for alternative methods of rate determination, the staff recommends that this approval be contingent upon the execution of the standard Memorandum of Understanding ("MOU") with the Hospital for the approved contract. This document would formalize the understanding between the Commission and the Hospital, and would include provisions for such things as payments of HSCRC-approved rates, treatment of losses that may be attributed to the contract, quarterly and annual reporting, and 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	*	**BEFORE THE MARYLAND HEALTH**
ALTERNATIVE METHOD OF RATE	*	**SERVICES COST REVIEW**
DETERMINATION	*	**COMMISSION**
MEDSTAR HEALTH	*	**DOCKET: 2014**
	*	**FOLIO: 2061**
BALTIMORE, MARYLAND	*	**PROCEEDING: 2251A**

Staff Recommendation

July 9, 2014

I. INTRODUCTION

MedStar Health filed an application with the HSCRC on June 19, 2014 on behalf of Union Memorial Hospital (the "Hospital") for an alternative method of rate determination, pursuant to COMAR 10.37.10.06. Medstar Health requests approval from the HSCRC for continued participation in a global rate arrangement for cardiovascular services with the Kaiser Foundation Health Plan of the Mid-Atlantic, Inc. for one year beginning August 1, 2014.

II. OVERVIEW OF APPLICATION

The contract will continue to be held and administered by Helix Resources Management, Inc. (HRMI). HRMI will manage all financial transactions related to the global price contract including payments to the Hospitals and bear all risk relating to services associated with the contract.

III. FEE DEVELOPMENT

The hospital portion of the global rates was renegotiated in 2007. The remainder of the global rate is comprised of physician service costs. Also in 2007, additional per diem payments were negotiated for cases that exceed the outlier threshold.

IV. IDENTIFICATION AND ASSESSMENT OF RISK

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

V. STAFF EVALUATION

The staff reviewed the results of last year's experience under this arrangement and found that they were favorable. Staff believes that the Hospital can continue to achieve a favorable experience under this arrangement.

VI. STAFF RECOMMENDATION

The staff recommends that the Commission approve the Hospital's request for continued participation in the alternative method of rate determination for cardiovascular services for a one year period commencing August 1, 2014. The Hospital will need to file a renewal application for review to be considered for continued participation.

Consistent with its policy paper regarding applications for alternative methods of rate determination, the staff recommends that this approval be contingent upon the execution of the standard Memorandum of Understanding ("MOU") with the Hospitals for the approved contract. This document would formalize the understanding between the Commission and the 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, and 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	*	**BEFORE THE MARYLAND HEALTH**
ALTERNATIVE METHOD OF RATE	*	**SERVICES COST REVIEW**
DETERMINATION	*	**COMMISSION**
MEDSTAR HEALTH	*	**DOCKET: 2014**
	*	**FOLIO: 2062**
BALTIMORE, MARYLAND	*	**PROCEEDING: 2252A**

Staff Recommendation

July 9, 2014

I. INTRODUCTION

MedStar Health filed an application with the HSCRC on June 19, 2014 on behalf of Union Memorial Hospital and Good Samaritan Hospital (the "Hospitals") to participate in an alternative method of rate determination, pursuant to COMAR 10.37.10.06. Medstar Health requests approval from the HSCRC for continued participation in a global rate arrangement for orthopedic services with MAMSI for a one year period beginning September 1, 2014.

II. OVERVIEW OF APPLICATION

The contract will continue to be held and administered by Helix Resources Management, Inc. (HRMI). HRMI will manage all financial transactions related to the global price contract including payments to the Hospitals and bear all risk relating to services associated with the contract.

III. FEE DEVELOPMENT

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

IV. IDENTIFICATION AND ASSESSMENT OF RISK

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

V. STAFF EVALUATION

The staff reviewed the experience under this arrangement for the last year and found that it

was favorable. The staff believes that the Hospitals can continue to achieve a favorable experience under this arrangement.

VI. STAFF RECOMMENDATION

The staff recommends that the Commission approve the Hospitals' request for continued participation in the alternative method of rate determination for orthopedic services, for a one year period, commencing September 1, 2014. The Hospital will need to file a renewal application for review to be considered for continued participation.

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

REPORT

ON

EXISTING GLOBAL BUDGET CONTRACTS

AND CHANGES FOR RATE

YEAR 2015 AND BEYOND

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

July 9, 2014

This report has been prepared for presentation to the Commission at the July 2014 Public Commission Meeting. No action is required.

A. Introduction

During the last six months, all hospitals in Maryland have chosen to have their revenues regulated in a manner consistent with the new All Payer Model. The All Payer Model reflects the transition from a rate setting system that has been focused on cost-per-case to one that has a three part aim of promoting better care, better health, and lower cost. In contrast to the previous Medicare waiver, which focused on controlling increases in Medicare inpatient payments per case, the new All-Payer Model is focused on controlling increases in total hospital revenue per capita.

At the core of the All-Payer Model are global revenue models that encourage hospitals to focus on population health and care improvement by prospectively establishing an annual revenue budget for each hospital. The HSCRC is currently using two global models: the Total Patient Revenue (TPR) model, which has existed for more than thirty years, and which now covers ten (10) hospitals located in relatively rural areas of the State; and the Global Budget Revenue (GBR) model, which was introduced in 2013, based on the pre-existing TPR methodology, and which is available to all hospitals in the State, including those in urban and suburban areas.

Under both the GBR and TPR models, each hospital's total annual approved revenue is established by formal agreement at the beginning of the fiscal year. Total annual revenue is derived from a historical base period level of revenue that is adjusted to the rate year for inflation, retroactive (plus or minus) changes (for compliance, etc.), volume levels, and other factors in accordance with HSCRC-approved policies.

The HSCRC staff believes it is timely and appropriate to evaluate the need for any immediate changes in the GBR and TPR agreements and to address policy issues that arose during or after the implementation process. Accordingly, the HSCRC staff developed a summary of the key provisions of the GBR and TPR contract "templates" and provided that summary to a subgroup of the Payment Models Work Group for review and discussion. The reviewers were asked to provide their recommended changes. The subgroup that engaged in the review was representative of stakeholders from consumers, payers, employers, and providers. The results of the detailed review by the subgroup were shared with the Payment Models Work Group. Additional input from the Payment Models Work Group was also considered by the HSCRC staff.

This Report summarizes the recommendations that arose from the review of the TPR and GBR templates. These recommendations will require both short-term and long-term consideration by the staff and the Commissioners before any changes are implemented.

A. Overview of Global Budgets

The TPR and GBR agreements provide for the operation of global revenue budgets within the following framework:

- Total annual revenue is determined from a historical base period that is adjusted to account for several factors.
- A fixed revenue base is set for a 12 month period with annual adjustments.
- Hospitals retain revenue related to reductions in potentially avoidable utilization (PAU)
- Hospitals can invest savings in care improvement, use the revenue capacity to provide enhanced services, or make other use of the savings.
- Annual updates are provided for inflation, based on Commission approved levels.
- Annual quality adjustments are provided based on Commission approved policies.
- An allowance is provided for demographic changes based on the agreements.
- The revenues are subject to adjustment for efficiency and other adjustments determined by HSCRC policy. Revenues are subject to adjustments to maintain compliance with the All-Payer Model.
- The agreements provide for potential adjustments for shifts in service loads between regulated hospitals (referred to as market share adjustments) or to unregulated settings.
- Other annual adjustments include those for payer mix differential, changes in assessments, price variances, overages and underages from the approved global budget, and uncompensated care.

Once the overall revenues are approved, unit rates are calculated for each hospital by HSCRC staff based on historical volumes and existing rate setting principles. The Commission issues hospital-specific rate orders that contain unit rates and overall allowed revenues.

Hospitals are permitted to increase or decrease their approved unit rates in order to generate their overall approved revenue. If volumes decrease, the hospitals are permitted to raise their unit rates to generate the approved level of revenue. Conversely, if volumes increase, the hospitals are expected to decrease their unit rates so that they will remain in compliance with their overall approved revenue budgets.

B. Review of Global Agreements and Recommendations

1. *Updates*

Many of the specific provisions in the GBR and TPR agreements are identical or similar to each other. This similarity is not surprising because the GBR agreement was modeled on the pre-existing TPR agreement. The most significant differences between the GBR agreements and the previous TPR agreements consist of modifications that were needed to conform the new TPR and GBR agreements to the new All-Payer Model and to add some consumer protections (e.g., assurances that needed services will be provided in a high quality manner, etc.). The TPR agreements do not include some of the specific clauses that have been included in the GBR

agreements to address these issues, but they do include general clauses that the HSCRC staff believes are sufficiently encompassing.

The review group ("Commenters") agreed that it would be appropriate to move to a single agreement, which would cover both TPR and GBR arrangements, when the current GBR agreement template is redrafted. The reviewers acknowledged that some differences in the terms of the agreements will be appropriate on a hospital-specific basis due to the location of the hospitals, the varying lengths of time that the hospitals have operated under the models, and other factors. The reviewers recommended that the HSCRC staff should develop a new standard template agreement for FY 2016 and address any immediate changes that are needed before FY 2016 through addenda to existing agreements. This schedule would give the HSCRC staff adequate time to update the existing TPR and GBR agreements into a new model template and would allow the staff to address any immediate concerns through adjustments to particular existing agreements.

2. Reporting Templates

The GBR agreement requires the hospitals to submit monthly reports on compliance and other aspects of the operations and impact of the GBR model. The GBR agreement also requires the hospitals to report on their investments in infrastructure support (e.g., case managers, care coordinators, etc.) that are designed to promote achievement of the various goals of the All Payer Model. The HSCRC staff will convene subgroups of the Payment Models Work Group with a goal of providing reporting templates by early fall.

3. Underage and Overages

As described above, each of the GBR and TPR hospitals is provided with an aggregate revenue budget for the upcoming rate year. A hospital is permitted to adjust its unit rates, within defined maximum corridors, to generate the approved aggregate revenue. If a hospital charges less than the aggregate approved revenue, this difference is referred to as an underage. Conversely, charges above the approved aggregate revenue are referred to as an overage. The GBR and TPR agreements address underages and overages, relative to the global budgets, by providing that underages (or overages) will be added to (or subtracted) from the total approved budget for the succeeding rate year as one-time adjustments.

The GBR agreement provides for a penalty of 40% when underages or overages exceed 0.5%. The HSCRC staff established this strict compliance policy because of the pressing need for enhanced compliance under the new All-Payer Model. Additionally, the HSCRC staff does not want to carry forward underages beyond a reasonable level to the budget of the following year, because that practice could yield unexpected and detrimental fluctuations in revenue budgets. It might also result in overall revenue budgets and unit charges that are unreasonable, if the underages resulted from the inability of particular hospitals to charge up to the level of their revenue budget because of large overall volume reductions. Nevertheless, some reviewers felt that a corridor of 0.5% may be too tight.

The TPR agreement, which was crafted before the new All Payer Model was conceptualized or implemented, does not include penalties for overages or limits on the carryover of underages.

The HSCRC staff is planning to change the corridors for GBR hospitals and to introduce the same corridors for TPR hospitals, as shown in Table 1. These corridors would be implemented through addenda to the existing TPR and GBR agreements during the rate update process for FY 2015.

Table 1

Corridors for Overages	
Overages 0 to .5% above total approved revenue budget .5% to 1% above total approved revenue budget 1% and more above total approved revenue budget	 No penalty 20% penalty 50% penalty
Corridors for Underages	
Underages 0 to .5% below total approved revenue budget .5% to 1% below total approved revenue budget 1% to 2% below total approved revenue budget Above 2%	 No penalty 20% penalty applied to reduce carryover 50% penalty applied to reduce carryover No carryover

Intentional overcharges are not permitted under the TPR/GBR agreements. If HSCRC staff observes a pattern of overcharges by some hospitals, it will reduce the overcharge corridor and increase the penalties on a hospital-specific basis.

4. Unit Rate Charge Corridors

As discussed above, both the TPR and GBR agreements allow hospitals to increase or decrease their approved unit rates to generate the overall approved global revenue for the hospital. However, the HSCRC's rate system includes a corridor that limits increases or decreases. If rate changes exceed or are lower than 5% of approved unit rates, then the hospital must seek permission to expand the charge corridor to 10%. Neither the TPR nor the GBR agreements specify a process whereby the corridors might be expanded beyond 10%. In particular, underages below 10% are not added back to hospitals' approved revenues. The HSCRC staff intends to address several issues of concern that have been raised concerning this policy based on initial input from the Work Group. A subgroup of the Payment Models Workgroup is being formed with the intent to address these issues by early fall.

Table 2

Policy Intent of Corridors	Commentary
HSCRC staff does not want to allow cross subsidization or shifting through undercharging in one center that is made up by overcharging in another center.	The limits provide assurance that this will not occur beyond the corridors.
If volume decreases would require rate increases beyond 10% to reach the approved revenue budget, the HSCRC staff wants to review the volume reductions to ensure that they are not the result of a shift of services to another regulated hospital, a shift to a non-regulated setting, or a failure to provide needed services.	There is a concern that the agreement does not specify how the intended policy will be addressed in evaluating requests for corridor relief. There is also a concern that there should be corridor relief beyond 10% to allow hospitals to continue to reduce avoidable utilization. Recommendation: HSCRC staff should form a subgroup to develop clear approaches to management of the agreement that will promote achievement of the goals of the global budget (e.g., promoting clinical improvement and reducing potentially avoidable utilization), while also addressing concerns relative to shifts or failure to provide services. This review should be done promptly in order to reduce uncertainty about the operation of global budgets and the investments that hospitals will need to make to reduce avoidable utilization and improve care and clinical management.
In order for the corridors to function, HSCRC staff indicated that the base period volumes would be maintained in place unless the revenue was rebased. This maintains consistency between the revenue budget and the initial volumes that established the budget.	There was a concern raised that rate realignment cannot occur effectively if volumes are not updated. HSCRC staff agrees with the importance of rate realignment. HSCRC staff will work with the subgroup referred to above to address this issue and make recommendations for consideration by the Payment Models Work Group.

5. December 31 Revenue Targets

While the TPR and GBR agreements are for fiscal years, the hospitals need to maintain compliance with calendar year targets, since both the All-Payer Model revenue limits and Medicare savings requirements are measured on a calendar year basis. The HSCRC Staff will provide a contract addendum for FY 2015 and beyond that will specify December 31 revenue targets that should not be exceeded on a hospital-specific basis.

C. Demographic Adjustment

As indicated above, the TPR and GBR agreements adjust approved hospital revenue levels to reflect demographic changes (i.e., increases/decreases in population and changes in the age/sex mix). In the past, the HSCRC staff developed a revenue adjustment based on county level

population estimates, which was used for the TPR hospitals. For GBR hospitals, most of which are located in urban or suburban areas, the HSCRC staff developed a newer, more precise demographic adjustment using a "virtual patient service area" (VPSA) for each hospital. This VPSA-based method adjusts the revenue budgets to reflect hospital service volume changes that are expected due to changes in the demographics of each hospital's VPSA. The adjustments do not permit increases in hospital service volumes that are due to potentially avoidable utilization (PAU).

The new, VPSA-based volume adjustment approach also includes a per capita efficiency factor that is designed to bring the overall demographic adjustment under the GBR models within the level of volume growth that is permitted under the new All-Payer Model (which is based solely on population growth).

The reviewers recommended that the HSCRC should use an expanded number of age cohorts in the volume adjustment. The HSCRC staff has accepted this recommendation and applied it in the updated calculations. The reviewers were also concerned about the initial (i.e., FY 2014) demographic calculation because it used statewide PAU percentages in reducing the age-adjusted weights, whereas the levels of PAU vary across the State. The staff has responded by removing the PAU percentages from the weights and applying the overall PAU adjustment on a hospital-specific basis. A more detailed description of the updated demographic adjustment can be found at: http://www.hscrc.state.md.us/pdr_clarifications.cfm .

D. Summary

The TPR and GBR global budget agreements are already similar to each other and should be consolidated when new templates are developed. Appropriate differences associated with individual hospitals should be retained. The target date for completion of a new template covering both TPR and GBR hospitals is FY 2016.

The demographic adjustment used for the GBR agreement for FY 2014 has been updated for FY 2015.

The HSCRC staff needs to develop several TPR/GBR reporting templates and will proceed to do so with input from the work group.

The following TPR/GBR contract provisions require immediate action as described:

- Corridors: The HSCRC staff has developed a new provision regarding overall corridors for the agreements and intends to implement this provision through an addendum to the existing agreements.
- December Revenue Targets: The HSCRC staff will provide each hospital with a December 31 revenue target. These targets will be implemented through an agreement addendum.

- Implementation of Corridor Limits: The HSCRC staff needs to remove uncertainty regarding the way in which the corridors will be implemented. This activity should be undertaken and completed by the fall. The staff intends to work with a subgroup of the Payment Models Work Group to review the operation of corridors. Staff will provide the Commission with an update on this activity in the fall.

Maryland Health Services Cost Review Commission

Progress Report--Update on Global Budget

July 9, 2014

Overview of Global Budget Implementation

- Under the new All-Payer Model with the Center for Medicare & Medicaid Innovation (CMMI), the Commission approved policies to allow hospitals not already covered by the Total Patient Revenue (TPR) budget model to:
  - Move to global budgets,--i.e., "Global Budget Revenue" (GBR) models, or
  - To remain on the CPC/CPV model with a new volume governor constraint.
- The GBR arrangements generally use the framework developed for the TPR arrangements.

GBR Approved Revenue Framework

- Constructed for each hospital/system using common approach and FY13 revenue base
- Developed in accordance with Commission approved policies
- Approved revenue established for FY14
- Updates and adjustments due on July 2014 and thereafter based on HSCRC policies and All Payer Model requirements

Initial Global Budget Development

- Global budget starts with FY13 (July-June) “permanent” revenue
  - Calculated by adjusting FY13 actual revenue to remove Previous Retroactive Adjustments and to adjust for Price Variances through FY13 year end
- Adjustments
  - Demographic adjustment for FY14 (see following slide)
  - Update factor applied of 1.65%
  - Quality adjustments applied
    - Shared savings reduction of 0.2%
    - Revenue neutral scaling for MHAC & QBR
  - Population health infrastructure adjustment of 0.65%,
    - generally ½ in FY14, ½ FY15
- CY13 projected/actual used to calibrate and ensure Model targets met for each hospital/system

Demographic Adjustment for FY14

- Hospitals with reducing volumes and a trend of decline
  - No population adjustment, no allowance
  - Some reductions and future deferment of demographic adjustments when required to balance the model
- Hospitals with stable volumes (including modest decreases or increases)
  - Demographic/population adjustment
- Hospitals with volume increases
  - Volumes recognized through CY 2013
  - Demographic/population adjustment from January 1 forward

Hospital's Base Revenue & Total Approved Regulated Revenue for RY 2014

	Grand Totals	% Total
A. Base Period Gross Revenue		
Actual Base Period Gross Revenue	**$13,778,464,643**	
FY13 Compliance Settlements, Quality and Other Adjustments	**($57,291,007)**	**-0.42%**
Remove Non-GBR Revenue in Base Year	**($677,204,915)**	**-4.91%**
Approved Base Period FY13 Gross GBR Revenue	**$13,043,968,720**	
B. FY 2014 Adjustments		
Increment for GBR Investments	**$37,490,224**	**0.29%**
FY 14 Inflation Annual Allowance	**$190,629,139**	**1.46%**
Vol./Pop Adj. through Dec + Population Adjustment through June	**$139,618,295**	**1.07%**
Net Amount of All Other Adjustments	**($4,042,721)**	**-0.03%**
C. Approved Regulated Revenue for the Rate Year FY 2014	**$13,407,663,657**	
% Change in Approved RY14/RY13 Gross GBR Revenue	**2.65%**	
% Change in RY 14/FY 13 Actual Revenue:	**2.31%**	
D. Approved Regulated Non-GBR Revenue	**$688,507,921**	
E. Total Approved Regulated Revenue For Rate Year 2014 per Order Nisi	**$14,096,171,578**	

Note: Non-GBR revenues consist of revenues (i.e., out-of-state revenues) not covered by the GBR. Only Johns Hopkins Health System and University of Maryland Medical Center excluded out-of-state revenues from GBR, due to the referral nature of the revenue..

Global Budgets Review

- All general acute hospitals expected to adopt global budgets.
  - Montgomery General Hospital and St. Mary's not yet complete (estimated figures included in totals)

Estimated GBR Approved Revenue for FY 2014	$13,407,663,657	86%
Estimated TPR Approved Revenue for FY 2014	$1,543,256,531	10%
Revenue Excluded from GBR for out-of-state FY 2014	$688,507,921	4%
	$15,639,428,109	100%

Note:

Psych hospitals and Mt. Washington Pediatric Hospital not included in above figures

Hospitals/Systems with Completed Budgets

Montgomery and St. Mary's not yet complete (estimated amounts included in total)

Hospital	Affiliation	FY 14 Approved
Shady Grove	Adventist	376,588,970
WAH	Adventist	254,864,218
Germantown ER	Adventist	13,839,618
	Adventist Total	**645,292,806**
Laurel Regional	Dimensions	122,799,111
Prince George's	Dimensions	261,425,365
Bowie EMG	Dimensions	15,617,219
	Dimensions Total	**399,841,695**
Hopkins Bayview	Hopkins	554,499,811
Howard County	Hopkins	281,634,848
Johns Hopkins	Hopkins	1,636,470,794
Suburban	Hopkins	257,152,521
	Hopkins Total	**2,729,757,974**
Levindale	LifeBridge	54,535,652
Northwest	LifeBridge	250,019,982
Sinai	LifeBridge	702,036,456
	LifeBridge Total	**1,006,592,090**
Franklin Square	MedStar	485,365,423
Good Samaritan	MedStar	299,617,955
Harbor	MedStar	204,950,822
Southern Maryland	MedStar	260,984,437
Union Memorial	MedStar	415,215,132
	MedStar Total	**1,995,192,100**

Hospital	Affiliation	FY 14 Approved
BWMC	University	393,555,941
Civista	University	144,514,525
Harford	University	103,938,098
Kernan	University	118,349,210
Maryland General	University	221,712,410
University of MD	University	1,192,843,953
University Shock Trauma	University	177,458,623
Upper Chesapeake	University	305,743,020
Queen Anne EMG	University	4,912,838
	University Total	**2,663,028,618**
St. Joseph's	University	362,064,197
Atlantic General		101,751,882
Anne Arundel		553,115,271
Bon Secours		129,643,967
Doctors Community		221,771,821
Fort Washington		46,796,285
Frederick Memorial		338,085,814
GBMC		427,071,053
Holy Cross		472,185,907
New Germantown Hospital		-
Mercy		487,981,390
Peninsula General		416,052,547
St. Agnes		411,438,239
	Grand Total	**13,407,663,657**

Hospitals with budgets that Staff has completed for FY 2014 in accordance with Commission approved polices.

Budgets will be updated annually consistent with Commission approved policy beginning July 1, 2014.

TPR Hospitals

Hospital	FY 14 Approved
Calvert Memorial Hospital	142,402,619
Chester River Hospital Center	61,106,999
Dorchester General Hospital	59,041,890
Memorial Hospital at Easton	187,789,175
Carroll Hospital Center	252,621,323
Garrett County	45,163,111
McCready Memorial	14,122,299
Meritus Hospital	304,582,766
Union of Cecil	157,033,246
Western MD Regional	319,393,103
	1,543,256,531

Renewals of 3 year agreements for second term implemented July 2013.

Report on Existing Global Budget Contracts and Changes for Rate Year 2015 and Beyond

Overview

- Two global budget templates in use
  - TPR
  - GBR
- The GBR arrangements generally use the framework developed for the TPR arrangements.
  - Updates to tie to the new All-Payer Model
  - Consumer friendly additions
  - Some reorganization
- Review conducted of both agreements with Payment Models Work Group and contract subgroup to identify desired changes to the template and to identify any immediate areas that need to be addressed

Recommendations

1. When updating the template, most of the TPR and GBR provisions should be standardized
   - This general process can take place with development of a new template for 2016
2. Agreement calls for monthly reporting of progress and annual reporting on infrastructure investments and results
   - Form subgroups to develop templates by the fall
3. Adjust corridors for variances from global budgets for FY 2015
   - Ease overall corridors for penalties
   - Limit carryforward of undercharges

Staff Recommendation

July 9, 2014

The Commission staff recommends for final adoption revisions to the Relative Value Unit (RVU) Scale for Laboratory services. The revisions are specific to Appendix D of the Accounting and Budget Manual. A workgroup comprised of experienced hospital and clinical personnel was formed to address concerns regarding EKG. The RVU scale was updated to reflect the addition of new codes added to the Current Procedural Terminology (CPT) codes in 2013 to reflect new technology and to reflect the move of Apheresis and the costs of Bone, Organ and Tissue to the Clinic and Medical Surgical Supplies cost centers respectively for a more appropriate classification of these services. The proposed changes were sent to all hospitals for comment. Comments were received; and all participants are in agreement with the proposed changes. Hospitals will be required to shift costs related to Apheresis and Bone/Tissue Organ to assure no change in hospital revenue as a result of this revision. Hospitals will begin using these revised RVUs effective July 1, 2014.

Title 10 DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Subtitle 37 HEALTH SERVICES COST REVIEW COMMISSION

10.37.01 Uniform Accounting and Reporting System for Hospitals and Related Institutions

Authority: Health-General Article, §§19-207, and 19-212, Annotated Code of Maryland

On July 9, 2014, the Health Services Cost Review Commission adopted amendments to Regulations .03 under COMAR 10.37.01 Uniform Accounting and Reporting System for Hospitals and Related Institutions. This action, which was proposed for adoption in 41:9 Md. R. 530 (May 2, 2014), has been adopted as proposed.

Effective Date: August 4, 2014

JOHN M. COLMERS
Chairman
Health Services Cost Review Commission

Title 10 DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Subtitle 37 HEALTH SERVICES COST REVIEW COMMISSION

10.37.10 Rate Application and Approval Procedures

Authority: Health-General Article, §§19-207, 19-212, and 19-219, Annotated Code of Maryland

On July 9, 2014, the Health Services Cost Review Commission adopted amendments to Regulations .26 under COMAR 10.37.10 Rate Application and Approval Procedures. This action, which was proposed for adoption in 41:9 Md. R. 530-531 (May 2, 2014), has been adopted as proposed.

Effective Date: August 4, 2014

JOHN M. COLMERS
Chairman
Health Services Cost Review Commission

[D.] *F.* — [R.] *T.* (text unchanged)

J. MICHAEL HOPKINS
Executive Director

Title 10
DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Subtitle 37 HEALTH SERVICES COST REVIEW COMMISSION

10.37.01 Uniform Accounting and Reporting System for Hospitals and Related Institutions

Authority: Health-General Article, §§19-207 and 19-212, Annotated Code of Maryland

Notice of Proposed Action
[14-120-P]

The Health Services Cost Review Commission proposes to amend Regulation **.03** under **COMAR 10.37.01 Uniform Accounting and Reporting Systems for Hospitals and Related Institutions**. This action was considered for promulgation by the Commission at a previously announced open meeting held on March 12, 2014, notice of which was given pursuant to State Government Article, §10-506(c), Annotated Code of Maryland. If adopted, the proposed amendments will become effective on or about July 7, 2014.

Statement of Purpose

The purpose of this action is to require hospitals to submit to the Commission all data required for evaluation purposes in compliance with the January 1, 2014, All-Payer Model Agreement executed between the State of Maryland and the Center for Medicare and Medicaid Innovation.

Comparison to Federal Standards

There is no corresponding federal standard to this proposed action.

Estimate of Economic Impact

The proposed action has no economic impact.

Economic Impact on Small Businesses

The proposed action has minimal or no economic impact on small businesses.

Impact on Individuals with Disabilities

The proposed action has no impact on individuals with disabilities.

Opportunity for Public Comment

Comments may be sent to Diana Kemp, Regulations Coordinator, Health Services Cost Review Commission, 4160 Patterson Avenue, Baltimore, MD 21215, or call 410-764-2576, or email to diana.kemp@maryland.gov, or fax to 410-358-6217. Comments will be accepted through June 2, 2014. A public hearing has not been scheduled.

.03 Reporting Requirements; Hospitals.

A.—O. (text unchanged)

P. All-Payer Model Agreement Data Requirements. Hospitals shall submit data in accordance with the requirements of the January 1, 2014 All-Payer Model Agreement executed between the State of Maryland and the Center for Medicare and Medicaid Innovation for evaluation purposes.

[P.] *Q.*—[T.] *U.* (text unchanged)

JOHN M. COLMERS
Chairman
Health Services Cost Review Commission

Subtitle 37 HEALTH SERVICES COST REVIEW COMMISSION

10.37.10 Rate Application and Approval Procedures

Authority: Health-General, §§19-207, 19-212, and 19-219, Annotated Code of Maryland

Notice of Proposed Action
[14-119-P]

The Health Services Cost Review Commission proposes to amend Regulation **.26** under **COMAR 10.37.10 Rate Application and Approval Procedures**. This action was considered and approved for promulgation by the Commission at a previously announced open meeting held on March 12, 2014, notice of which was given pursuant to State Government Article, §10-506(c), Annotated Code of Maryland. If adopted, the proposed amendments will become effective on or about July 7, 2014.

Statement of Purpose

The purpose of this action is to bring about greater uniformity in the calculation of current financing.

Comparison to Federal Standards

There is no corresponding federal standard to this proposed action.

Estimate of Economic Impact

The proposed action has no economic impact.

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The proposed action has minimal or no economic impact on small businesses.

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.26 Patient Rights and Obligations: Hospital Credit and Collection and Financial Assistance Policies.

A.—.A-2 (text unchanged)

B. Working Capital Differentials—Payment of Charges.

(1) A third-party payer may obtain a discount in rates established by the Commission if it provides current financing monies in accordance with the following terms.

(a)—(b) (text unchanged)

(c) Outstanding charges shall be calculated by an amount equal to the hospital's current average daily payment by the payer, multiplied by the hospital's and third party payer's processing and payment time. *The precise calculation shall be made in accordance with the guidelines specified by Commission staff.*

(d)—(e) (text unchanged)

(2)—(5) (text unchanged)

C. (text unchanged)

JOHN M. COLMERS
Chairman
Health Services Cost Review Commission

Subtitle 44 BOARD OF DENTAL EXAMINERS

10.44.34 Ownership and Management of a Dental Practice

Authority: Health Occupations Article, §4-101(l), Annotated Code of Maryland

Notice of Proposed Action

[14-115-P]

The Secretary of Health and Mental Hygiene proposes to adopt new Regulations **.01—.05** under a new chapter, **COMAR 10.44.34 Ownership and Management of a Dental Practice**. This action was considered by the Board of Dental Examiners at a public meeting held on February 19, 2014, notice of which was given under the Notice of Public Meetings link on the Board's website pursuant to State Government Article, §10-506(c), Annotated Code of Maryland.

Statement of Purpose

The purpose of this action is to delineate what constitutes lawful and unlawful ownership and management of a dental practice.

Comparison to Federal Standards

There is no corresponding federal standard to this proposed action.

Estimate of Economic Impact

The proposed action has no economic impact.

Economic Impact on Small Businesses

The proposed action has minimal or no economic impact on small businesses.

Impact on Individuals with Disabilities

The proposed action has no impact on individuals with disabilities.

Opportunity for Public Comment

Comments may be sent to Michele Phinney, Director, Office of Regulation and Policy Coordination, Department of Health and Mental Hygiene, 201 West Preston Street, Room 512, Baltimore, MD 21201, or call 410-767-6499 (TTY 800-735-2258), or email to dhmh.regs@maryland.gov, or fax to 410-767-6483. Comments will be accepted through June 2, 2014. A public hearing has not been scheduled.

.01 Scope.

In Maryland only licensed dentists may own, manage, conduct, operate, or be the proprietor of a dental practice, regardless of how small the ownership interest. However there are an increasing number of nondentists who have become owners of dental practices or who are exercising unlawful authority or control over the clinical practice of dentistry in dental offices through the guise of "management". This chapter is intended to:

A. Preserve a dentist's professional independence; and

B. Address the concern that licensed dentists may be misrepresenting their alleged ownership in a dental practice.

.02 Definitions.

A. In this chapter, the following terms have the meaning indicated.

B. Terms Defined.

(1) "Ancillary personnel" means a dental hygienist, dental radiation technologist, dental assistant, or any other individual who provides clinical services in a dental office.

(2) Dentist.

(a) "Dentist" means an individual who holds an active general license to practice dentistry in Maryland.

(b) "Dentist" does not include an individual who in this State holds:

(i) An inactive status registration certificate;

(ii) A limited license;

(iii) A teacher's license;

(iv) A retired volunteer license;

(v) A volunteer license; or

(vi) A temporary volunteer license.

(3) "Person" means a natural person, partnership, professional association, professional corporation, limited partnership, limited liability company, trust, estate, corporation, association, unincorporated association, custodian, two or more persons having a joint or common interest, nominee, or any other individual, legal or commercial entity in its own or any representative capacity.

(4) "Practice dentistry" means to:

(a) Be a manager, a proprietor, or a conductor of or an operator in any place in which a dental service or dental operation is performed intraorally;

(b) Perform or attempt to perform any intraoral dental service or intraoral dental operation;

(c) Diagnose, treat, or attempt to diagnose or treat any disease, injury, malocclusion, or malposition of a tooth, gum, or jaw, or structures associated with a tooth, gum, or jaw if the service, operation, or procedure is included in the curricula of an accredited dental school or in an approved dental residency program of an accredited hospital or teaching institution;

(d) Perform or offer to perform dental laboratory work;

(e) Place or adjust a dental appliance in a human mouth; or

(f) Administer anesthesia for the purposes of dentistry and not as a medical specialty.

.03 Prohibitions.

A. Only a dentist shall own, manage, conduct, operate, or be the proprietor of a dental practice.

B. A dentist may not falsely represent to the Board that the dentist is an owner or has an ownership interest in a dental practice.

C. A dentist shall be solely responsible for patient management.

D. Only a dentist shall exercise authority or control over the clinical practice of dentistry.

E. The Board shall deem that a person is exercising authority or control over the clinical practice of dentistry if the person, by agreement, lease, policy, understanding, or other arrangement, exercises authority or control over:

(1) A finding, decision, or recommendation of a dentist regarding a course or alternative course of treatment for a patient;

(2) The procedures or materials to be used as all or a part of a course of treatment, or the manner in which a course of treatment is to be implemented by a dentist, or other ancillary personnel;

(3) The length of time a dentist or a dental hygienist spends treating or consulting with a patient;

(4) Conditions on the number of patients a dentist or a dental hygienist may treat in a certain period of time;

(5) Communications that the dentist has with patients that are clinical in nature;

(6) The clinical practice of a dental hygienist regarding appropriate dental hygiene treatment;

[D.] *F.* — [R.] *T.* (text unchanged)

J. MICHAEL HOPKINS
Executive Director

[P.] *Q.*—[T.] *U.* (text unchanged)

JOHN M. COLMERS
Chairman
Health Services Cost Review Commission

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(2)—(5) (text unchanged)

Health Services Cost Review Commission
4160 Patterson Avenue, Baltimore, Maryland 21215
Phone: 410-764-2605 · Fax: 410-358-6217
Toll Free: 1-888-287-3229
hscrc.maryland.gov

TO: Commissioners

FROM: Legal Department

DATE: July 9, 2014

RE: Hearing and Meeting Schedule

Public Session:

***NOTE:** The next public meeting is currently scheduled for August 13, 2014 at 1:00 p.m. at 4160 Patterson Avenue, HSCRC Conference Room. It is possible that this meeting could be cancelled so please monitor the HSCRC website for more information.

September 10, 2014 at 1:00 p.m., 4160 Patterson Avenue, HSCRC Conference Room

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

The Agenda for the Executive and Public Sessions will be available for your review on the Thursday before the Commission meeting on the Commission's website.
http://hscrc.maryland.gov/commissionMeetingSchedule2014.cfm

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