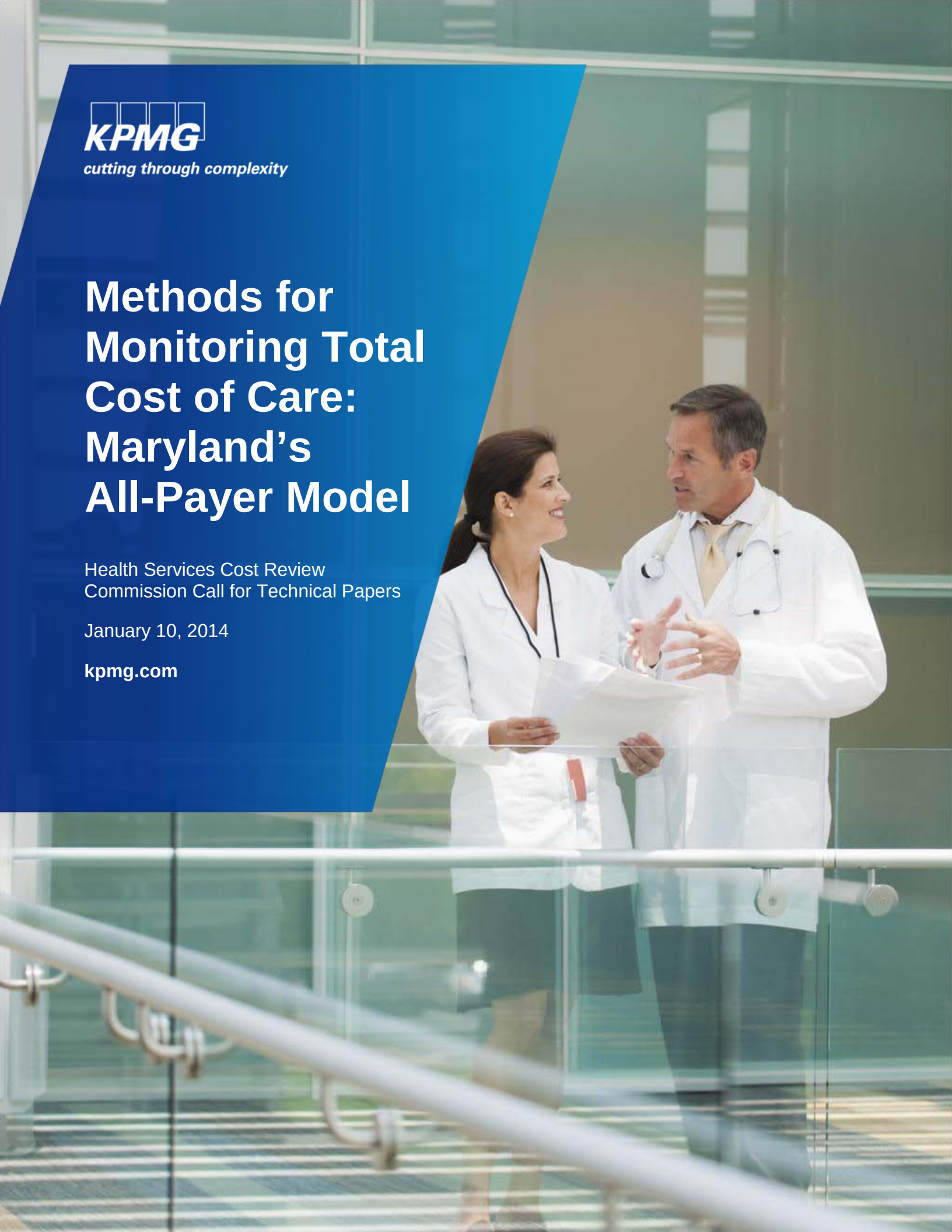

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cutting through complexity

Methods for Monitoring Total Cost of Care: Maryland's All-Payer Model

Health Services Cost Review
Commission Call for Technical Papers

January 10, 2014

kpmg.com

Content

Monitoring total cost of care

For success under the new Medicare Waiver test, the Health Services Cost Review Commission (HSCRC) and hospital industry must be able to measure, monitor, and react to Maryland's cost of healthcare. It is the intention that this paper highlights and covers a discussion surrounding cost accumulation and monitoring.

CMMI demonstration requirements

Specifically outlined in the October 11, 2013 proposal to the Center for Medicare and Medicaid Innovation (CMMI), the following three (3) "tests/measures" all involve various accumulations of Maryland healthcare costs:

Test 1. Annual all-payer cost per capita growth limit of ***3.58%*** for hospital inpatient and outpatient services to Maryland residents (cost defined as billed charges)

Test 2. Accumulated hospital cost savings of $**330 million** over five years to the Medicare program (cost defined as Medicare program payments)

Test 3. Maryland Medicare per beneficiary total cost growth cannot exceed the National Medicare per beneficiary total cost growth by more than ***1%***, measured annually. (cost defined as Medicare program payments)

In order to comply with the CMMI measures, a robust data analysis approach must be present, consistent, and timely. The following table displays various attributes of the three (3) CMMI tests:

Table A

Data element	Test 1: 3.58%	Test 2: $330 million	Test 3: 1%
Possible Data Source(s)	Maryland hospitals' abstract data submissions & MD Dept. of Planning	Primarily Centers for Medicare & Medicaid Services (CMS) due to specificity in claim types	CMS and a fully implemented Maryland All-Payer Claims Database
Data Measured	Total inpatient & outpatient hospital charges; Maryland resident population	Total hospital cost growth (payments) per Medicare beneficiary, MD residents vs. nation	Growth rate of Medicare total cost (payments) per beneficiary, MD residents vs. nation
Payer(s)	All-payers	Medicare Fee For Service (FFS) only	All Medicare Payments
Proposed Calculation Timing	Quarterly: 30 days post data period closing	Semiannually	Semiannually
Difficulty to obtain/measure (1 to 5, with 1 = low)	1	3	5

Cost accumulation and reporting

The complexity in monitoring and measuring healthcare costs in Maryland can be attributed to the fragmented data sources that accumulate patient's clinical, financial and demographic information. The discussion below will highlight and propose the appropriate repositories to be utilized in understanding and measuring total cost.

Discharge abstract data

Under the HSCRC's jurisdiction, regulated healthcare facilities are required to submit patient level charge and demographic data (abstract data) on a quarterly basis. Such data includes, but is not limited to: inpatient vs. outpatient designation, residency zip code, principal diagnosis, total charges, age, source of admission, and discharge disposition. The hospital abstract data submission requirement has created a comprehensive data warehouse, but does not represent the full cost of healthcare in Maryland as nonregulated entities, i.e. physician, home health, skilled nursing facilities, etc., are not included.

The discharge abstract data submitted to the HSCRC is sufficient to accommodate the routine measuring of Test 1 referenced above. In addition to using the hospital abstract data files, population projections will be utilized from the Maryland Department of Planning to complete the per-capita calculation. For validation purposes, population growth rates from the Department of Planning should be corroborated by examining other external data sources such as Claritas. The appropriate prorated population annual growth rate, based on the MD Dept. of Planning projections, should be applied to the quarterly calculations. As inpatient and outpatient data submitted by facilities is closed 60 days after any given quarter-end, it is feasible that Test 1 can and should be assessed on a quarterly basis. See Table B below for a proposed calculation timing related to the 4th fiscal quarter of 2014:

Table B – Test 1: 3.58%		
Discharge period	**Preliminary close**	**Final close**
April 2014	5/15/2014	8/29/2014
May 2014	6/16/2014	8/29/2014
June 2014	7/15/2014	8/29/2014
Proposed "Test 1" Calculation Due	**9/30/2014**	

In the example above, the calculation would be due approximately 30 days after the abstract data closes, or 90 days after the quarter-end.

Special Considerations: It should be noted that retroactive rate setting adjustments, along with over/undercharging rate orders can skew interim calculations and projections. Furthermore, as the per-capita test only relates to Maryland residents and charges, the HSCRC should review and trend county, state, and zip code data reported on the discharge abstract files for accuracy/anomalies.

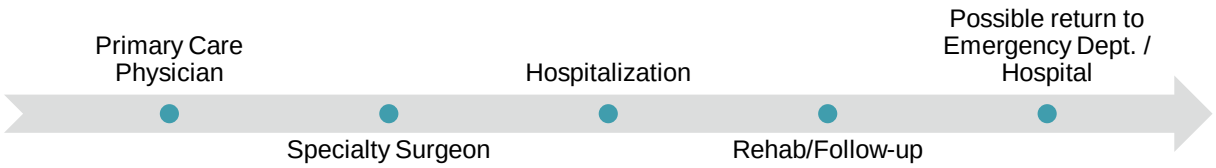
Maryland's Medical Care Data Base (MCDB)

In 1993, the Maryland General Assembly enacted legislation that called for the development of an all-payer claims database, administered by the Maryland Health Care Commission (MHCC). Payers with covered lives greater than 1,000 are required to comply with the MCDB data submission process. Other

states, such as Colorado and Massachusetts, have also developed robust all-payer claims databases and are members of the All Payer Claims Database Council (APCD), for which Maryland too is a member.

Although the HSCRC will have dependence upon CMS claims data to fully understand and calculate Tests 2 and 3, it is imperative that the MCDB be utilized and enhanced to monitor shifts in services. Specifically related to Test 3, the HSCRC does not have rate-setting authority over nonhospital-based services and therefore needs to understand and monitor those nonhospital services to Medicare beneficiaries that could adversely affect the 1% cost growth test. With the appropriate data included in the MCDB and data use agreements in place, the HSCRC would be able to monitor the relationship of regulated/nonregulated services in Table C below.

Additionally, a fully robust all-payer claims database would enhance the efforts to monitor and track a full episode of care/utilization to better understand potentially avoidable volumes and where patients receive their care along the care continuum:



The care continuum above, for any de-identified patient, could be tracked for quality outcomes, along with monitoring cost at each provider setting/intervention. Review of patient level detail would identify Prevention Quality Indicators (PQIs) and the point at which an intervention (physician care management, home health services, etc…) may have been successful in preventing an unnecessary hospitalization.

Chesapeake Regional Information System for our Patients (CRISP)

In addition to the MCDB, the Chesapeake Regional Information System for our Patients (CRISP) is Maryland's state-designated Health Information Exchange (HIE), where a subset of Maryland hospital and physician practices submit their patients' medical encounter data. A strong, reliable, and accessible integration between CRISP and MCDB would further the HSCRC's and industry stakeholders' ability to monitor clinical utilization, location of care rendered, and cost of care.

MCDB & CRISP Action Items

The following actions would assist the HSCRC and industry in ensuring compliance with the 1% cost growth test:

1. Establish an industry work group to perform a gap assessment of the MCDB and develop best practice analytics and reporting. The work group would also assess and recommend the future state of the CRISP-MCDB relationship.

2. As illustrated in Table C, develop baseline total payment/cost reporting from CY 2012 forward for: 1. State of Maryland in its entirety, 2. Each Maryland County, and 3. Each Maryland zip code. Data should be trended and reviewed for anomalies.

3. Identify and trend the 20% principal diagnoses/disease categories that accumulate 80% of total Medicare payments; data can then be stratified by county, zip code, institution/provider, etc.

4. Collaboration with CRISP/HIE and relationship of a master patient index in the MCDB. The place of service for any given beneficiary or group of patients could be monitored for appropriate/inappropriate shifts in services.

5. Review existing MCDB data to understand how payments by Tax ID could explain service shifts.

Table C – Test 3: Total Maryland Medicare beneficiary payments			
Healthcare service		**Total**	**% to Total**
Hospital – Inpatient	$450		
Hospital – Outpatient	$300		
Subtotal		$750	82%
Physician		$50	5%
Skilled Nursing		$70	8%
Home Health		$25	3%
All Other		$20	2%
Total		$915	100%

** Numbers are for demonstration purposes only **

Conclusion

As the hospital abstract data is timely and contains the necessary data elements, it should be the sole cost data source for monitoring and measuring Test 1 described above, 3.58% cost per capita annual growth. Although Test 1 is an annual test with CMMI, the HSCRC has the ability to perform interim calculations on a quarterly basis, and if indicated by the calculation, would allow the HSCRC to take timely corrective action.

Monitoring and measuring “Total Cost of Care” is more complicated as it encompasses costs/charges for services outside the HSCRC’s regulatory authority. As described above, the industry will have to be dedicated in the continuous validation, refinement and analytical review of the MCDB and CRISP repositories. Maryland’s success under the new Medicare Waiver is hinged upon collaboration, transformation, and refinement, for which all requires timely and reliable data.

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