The Maryland All Payer Hospital Rate Setting System Experience

“Looking Beyond DRGs”

Provider Payment Reform in the Philippines – Toward Universal Health Coverage (Technical Forum)

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Introduction and Overview

- Overview: Maryland All-Payer Hospital Rate Setting System
- Characteristics of the State of Maryland, USA
- Payment System Evolution and Structures of Payment
- The Maryland DRG System 1977 - 2009
- Factors Motivating the Move to Global Budgets 2010
- Characteristics and Features of Hospital Global Budgets
- Implementation of Global Budgets for 10 Pilot Hospitals 2010
- Global Budget Example
- Quality of Care Initiatives
- Transition of all Maryland Hospitals to Global Budgets 2014
- Performance Results and Key Challenges
- Implications for Other Jurisdictions
Maryland Characteristics

• Maryland State population 6 million people
• High per capita income vs. U.S.
• Suburban, Rural and Urban areas (two large cities Baltimore and borders Washington DC)
• Large poor populations in Baltimore City and around Washington DC
• 50 Acute Care hospitals ranging from 15 – 700 beds
• 17 rural; 18 suburban and 15 urban hospitals
• These include Two large Academic Teaching Hospitals (Johns Hopkins and University of Maryland)
• $16 billion of inpatient and outpatient revenues accounts for 36% of health expenditures
• Inpatient/Outpatient split is approximately 60% IP and 40% OP
US and Maryland Health Care Landscape

• U.S. characterized by high cost growth, inequitable payment, an emphasis of volume over value, poor access for uninsured:
  • Elderly (over age 64) insured by Federal Medicare Program which pays hospitals set rates that are below their cost levels
  • Poorer patients insured by Medicaid (funded by state and federal governments) and pays hospitals below cost
  • Commercial Insurers cover employed population
  • Obama Care insurance subsidies for Individuals and is administered by Commercial Insurers (US still has a high proportion of uninsured)

• U.S. has a fragmented payer sector and a consolidated provider sector – characterized by high costs (with incentives for volume growth over improved “value” of care) and deteriorating access

• Maryland created its unique Hospital Regulatory Structure in an attempt to address the issues of Cost Growth, Inequities in Payment, Access to Care, Solvency and Accountability of Hospitals – on its own
Maryland All Payer Hospital Rate Setting

- Maryland is the last of 5 states to have State-based Hospital Rate Setting Systems – applied to All Payers including Medicare
- Requires a “Waiver” from the Federal Medicare rules
- Maryland keeps this Waiver from Medicare as long as it pass a financial “Waiver Test”
- State law mandates Commercial Insurers to pay HSCRC rates
- System applies to Hospital Facility charges and not to Physicians
- Goals: Control Cost Growth; Improve Payment Equity across payers; Improve Access to Care; Improve Quality; Improve Accountability/Transparency and provide for Hospital Solvency
- Initial System a per case DRG system (first in the world in 1977) applied to Medicare, Medicaid and Commercial patients
- Outpatient services paid at unit rates but later used more bundled Per Visit payment structure starting in 2008
Health Services Cost Review Commission

- HSCRC is a small regulatory agency that administers the All Payer Rate setting system
- Budget was $7 million per year (old model) now more than $15 million per year under new model (Global Budgets)
- 30 FTEs (old model) now 50 FTEs
- Executive staff, Economists, Accountants, Researchers and Legal
- Broad legal authority to set rates/experiment with payment models
- Extensive data collection (case mix data, financial data and now unique patient data across all providers)
- Use of DRGs applied to all payers (All Payer Refined DRGs)
- Outpatient paid on a unit rate basis (on a bundled per visit basis)
- Inpatient/outpatient rates adjusted by a “Volume Adjustment”
- Benefit: local control as long as the State passes the Waiver Test
DRG System Performance

• Per Case Cost growth – lowest in the nation 1977 – 2006

• **Volume Adjustment System** designed to eliminate any incentive to do additional inpatient or outpatient volumes
  
  • Hospital have high fixed costs ~ 50%+ and thus Variable costs for incremental volume are about 50%
  
  • Incremental payment in absence of a Volume Adjustment System = 100% for each new case or new outpatient procedure/test
  
  • This Economic Equation creates large incentives for hospitals to purchase physicians, build new buildings and technology to increase volumes of care
  
  • HSCRC’s Volume Adjustment System reduced inpatient and outpatient payments by this Variable Cost factor (50%) if volumes increased
  
  • Hospitals received their fixed cost component (50%) if volumes decreased

• 1977-1990 Maryland experience little volume growth and also controlled the growth in hospital cost per case

• In 1992 HSCRC reduced the “break” on volume growth – diluted the Volume Adjustment System and eliminated it in 2001

• As a result, inpatient and outpatient volumes exploded 2001-2009
Inpatient and Outpatient Volumes Exploded after Elimination of the Volume Adjustment System

Inpatient Admissions

Large Jump in Equivalent Admissions

Volume trend before Elimination of the Volume Adjustment System

0.8% volume growth close to population growth

2.4% per year

VAS removed

Yearly Equivalent Admissions

HSCRC - Implication of and Responses to Provider Volume Growth

• Maryland continued to do well in control of cost per case

• But increased number of cases and outpatient volume meant per capita hospital costs increased rapidly

• Starting in 2009-10 HSCRC changed the structure of payment – to adopt broader payment bundles
  • HSCRC adopted Global Budgets for 10 isolated Rural hospitals
  • Adopted combined admission/readmission payment for 31 hospitals
  • The HSCRC reinstituted the Volume Adjustment System for others

• Broader Payment Structures such as Global Budgets – transfer more Financial Risk from the Payer to the Provider

• Create stronger overall Incentives for Cost Control

• HSCRC also implemented Quality Pay-for-Performance Initiatives to counter incentives to “stint on care” under new payment structures
The Structure of Payment (degree of bundling) Impacts the Incentives for Cost Control

- The Structure of hospital payment (degree of bundling of services) will have an impact on the incentives for cost control
- In general, broader payment structures – transfer more financial risk to hospitals and provide stronger incentives for cost control
- The table below shows how cost control incentives change with different payment structures

<table>
<thead>
<tr>
<th>Basis of Payment</th>
<th>Unit Costs</th>
<th>Ancillaries/day</th>
<th>Length of Stay</th>
<th>Admission/Readmissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Rates (line item charges)</td>
<td>★</td>
<td>★</td>
<td></td>
<td></td>
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<tr>
<td>Per Diems</td>
<td>★</td>
<td>★</td>
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<tr>
<td>Per Case (DRGs)</td>
<td>★</td>
<td>★</td>
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<td>★</td>
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<td>Hospital Global Budget</td>
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</table>
10 Pilot Global Budgets for Isolated Rural Hospitals
With a Clear “Reference Population”

- Garret Co. $42m
- W. Maryland HS $291m
- Wash. Co. $248m
- Carroll Co. $202m
- Union of Cecil $128m
- Chester River $56m
- Mem. Easton $160m
- Dochester $52m
- Atlantic Gen. $85m
- St. Mary’s $126m
- McCready $19m

Rural Areas of the State
Washington DC
Baltimore City
Policy Responses 2008-2011: Quality of Care Initiatives

- These Quality programs provided incremental incentives (both penalties or rewards) for hospitals to maintain or improve quality.

- Programs implemented in part due to concerns that hospitals might “stint” on quality of care under the incentives of more fixed payment mechanisms.

- Quality-Based Reimbursement (QBR)
  - Implemented an incremental P4P incentive program for various process/quality metrics.
  - Measured performance on use of Process Measures correlated with higher quality.
  - Later incorporated clinical care, patient safety, mortality and ED wait times and patient satisfaction measures.

- Maryland Hospital Acquired Conditions (HAC)s
  - Implemented an incremental P4P incentive program for hospitals to reduce HACs.
  - Much broader than the Medicare HAC program (incentivized performance on 64 different “Potentially Preventable Conditions”) e.g., infection rates, falls, never events.

- Readmission Programs
  - Implemented an incremental incentive program for hospitals to reduce Readmission rates.
Selected HACs (35 of the Most Significant HACs)

**Extreme Complications**
- Extreme CNS Complications
- Acute Pulmonary Edema & Respiratory Failure w Ventilation
- Shock
- Ventricular Fibrillation, Cardiac Arrest
- Renal Failure with Dialysis
- Post-Operative Respiratory Failure w Tracheostomy

**Cardiovascular-Respiratory Complications**
- Stroke & Intracranial Hemorrhage
- Pneumonia, Lung Infection
- Aspiration Pneumonia
- Pulmonary Embolism
- Congestive Heart Failure
- Acute Myocardial Infarct
- Peripheral Vascular Complications Except VT
- Venous Thrombosis

**Gastrointestinal Complications**
- Major GI Complications w Transfusion or Signif Bleeding
- Major Liver Complications

**Infectious Complications**
- Clostridium Difficile Colitis
- Urinary Track Infection
- Septicemia & Severe Infection

**Perioperative Complications**
- Post-Op Wound Infection & Deep Wound Disruption w Procedure
- Reopening of Surgical Site
- Post-Op Hemorrhage & Hematoma w Hemorrhage Control Proc or I&D Proc
- Accidental Puncture/Laceration During Invasive Procedure
- Post-Op Foreign Body

**Malfunctions, Reactions Etc.**
- Iatrogenic Pneumothrax
- Mechanical Complication of Device, Implant & Graft
- Inflammation, & Other Complications of Devices, Implants or Grafts Except Vascular Infection
- Infections due to Central Venous Catheters

**Obstetrical Complications**
- Obstetrical Hemorrhage w Transfusion
- Obstetrical Laceration & Other Trauma w/o Instrumentation
- Obstetrical Laceration & Other Trauma w Instrumentation
- Major Puerperal Infection and Other Major Obstetrical Complications

**Other Medical and Surgical Complications**
- Post-Hemorrhagic & Other Acute Anemia w Transfusion
- Decubitus Ulcer
- Encephalopathy
Maryland New Model Demonstration 2014

• Medicare Waiver test Performance – which was an average payment per case growth test – started to erode
  – As hospitals reduced numbers of admissions under New Model caused average cost per case to increase

• Maryland wanted to change its waiver test from a per case growth test to a per capita growth test, to parallel the new payment structure

• With National Health Reform 2010 – the federal government wanted States to experiment with payment that moved away from incentivizing volumes to payment emphasizing better “value”

• Emphasis was also on Population Based Payment initiatives

• Hospital Global Budget payment arrangements are compatible with these goals

• Maryland negotiated a New Medicare Waiver with the federal government in 2014 which put all hospitals under Global Budgets
Hospital Global Budgets - Characteristics

- Establishes a **fixed budget** for a hospital regardless of the number of patients seen.

- The Fixed Budget is meant to cover a “**Reference Population**”
  - Reference Population easy to identify for isolated rural hospitals – where 50-75% of population uses the local hospital.

- Budget are usually based on a hospital’s **Historical Costs** in some “**Base Year**”

- Budget is Trended to the first Performance Year by a “**Trend Factor**” that takes into account input inflation and demographic changes.

- There may be **Adjustments** to the Budget (Maryland added extra funding to the trend to assist with investment in population health).

- HSCRC could enforce **Compliance** with the Budget – i.e., a “Hard” Cap (if over, next year’s budget reduced and penalties applied).

- **Reinsurance** may apply (certain types of services or high cost cases excluded and/or Aggregate Stop Loss applied to reduce risk).
Hospital Global Budgets (continued)

- Hospital was Guaranteed to receive its Budgeted Revenue:
  1. Hospitals either paid every two weeks a fixed amount from each payer, or
  2. In Maryland hospitals still charged DRG and Outpatient rates and had to monitor volume over time
- If volumes increased over historical levels, hospital had to reduce prices
- During the Year: Prices x Volumes = Global Budget
- Goals of a Global Budget System:
  - Strong control on volumes and total cost: Incentives to reduce all costs (ancillary costs, length of stay, per day costs, number of admissions and number of readmissions)
  - Provides for predictable revenue flow for hospital & improved financial stability
  - HSCRC could trend Global Budgets at desired rate to slow cost growth and improve over all system affordability
  - Hope that hospital would become more responsive to community health needs – focus more on preventive care and population health
Global Budget Mechanics

Washington Co. Hospital

- $250 million in Base Year Revenues
- Located in an isolated part of the State
- Serves 148,000 residents
- Limited in-migration from other areas

- Hospital costs increased by about 2.4% but hospital successfully eliminated unnecessary admissions, readmissions, imaging and other outpatient services

Global Budget Example

<table>
<thead>
<tr>
<th>Global Budget Example</th>
<th>Estimated Cost Inflation</th>
<th>Population Growth &amp; Aging in County</th>
<th>Performance Year</th>
<th>Change</th>
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<tbody>
<tr>
<td>Base Year Revenue</td>
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<tr>
<td>Base Year Expenses</td>
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<tr>
<td>Operating Margin</td>
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<tr>
<td>Operating Margin %</td>
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Historical Revenue = $250m

Enforced Cap = $259.2 m

Elimination of “waste” is now a source of financial sustainability for the hospital – and efforts to improve care and coordinate with care management initiatives are rewarded.

- CMS agreed to a New Demonstration Model/Waiver with Cost per Capita Growth Tests (replacing the cost per case growth test)
- Most of the Waiver tests required improvement vs. U.S. Performance

**Scale and Financial Requirements:**
- Convert all hospitals in the state to Global Budgets by 2017
- Limit all payer per resident hospital growth to no more than 3.58% per year
- Generate at least $330 million in Medicare per capita hospital savings vs. US average growth rates over 5 years (2014-2018)
- Limit Medicare Total Cost of Care growth (Total Cost of Care includes hospital and non hospital expenditures) to meet certain growth targets

**Quality of Care Requirements:**
- Reduce Medicare Readmission rate to U.S. average (Maryland had one of the highest Readmission rates in the US in 2013)
- Reduce frequency of Hospital Acquired Conditions by at least 30% over 5 years
- Realize improvements in other clinical, patient safety and patient satisfaction measures at least equal to improvements nationally for Medicare patients
Mixed Performance Results Thus Far 2014-2018

- HSCRC shifted all 50 Maryland hospitals to adopt Global Budgets (10 had adopted Global Budgets starting in 2010)
- Growth in total All Payer hospital expenditures per Maryland resident was below the 3.58% limit in 4 out of the 5 years
- Maryland saved a little more than the required $330 million for Medicare (vs. U.S. growth rates) over 5 years (only 1.7% over 5 years)
- Maryland’s Total Cost of Care (both hospital and non-hospital expenditures) was below the U.S. in CY 14 and CY16, but over the U.S. growth in CY 15, CY 17 and CY 18
  - Concern that care was shifting from hospital to non-hospital sector
- Maryland’s Readmission rate declined to just below the US average
- Maryland Hospital Acquired Conditions decline by over 50% 2014-18
  - Concerns that a portion of decline was due to changes in documentation/coding
- Clinical care/Patient Safety measure performance was mixed; ED wait times increased and Patient Satisfaction worsened
Key Challenges

• Despite the very strong financial incentives of Global Budgets to reduce unnecessary volume and cost – Maryland hospital volumes remained flat and did not decline overall

• Possible reasons why hospitals did not reduce utilization:
  • The HSCRC annual updates to hospital revenue were very generous 2014-2018 and hospitals greatly improved their profitability
  • Hospital managers had less incentive to reduce volume and cost under a fixed budget as long as profit margins were healthy (i.e., little need to cut costs further)
  • Hospital managers also did not want to antagonize physicians and specialists who did not face similar incentives (physicians were still paid on a FFS basis)

• Although Maryland met the key financial targets, savings produced was not very large ($500 million over 5 years = only about 1.7%)

• Evidence that care shifted from hospital to non-hospital sector

• Hospitals in urban and suburban areas found the system too rigid (i.e., it did not adjust budgets for shifts in volume across hospitals)

• Large teaching hospitals also found the fixed budgets too restrictive
Implications for Other Jurisdictions

- System is best administered by some regional or governmental entity with enforcement authority.

- Hospital Global Budgets do contain very strong incentives to reduce unnecessary volumes and eliminate waste.

- However, it is important to keep overall system revenue restricted to meet overall cost goals and provide strong incentives for hospitals to manage care.

- Most effective if apply to an identified “Reference Population” – i.e., works best in Isolated regions.

- Urban/Suburban hospitals with overlapping service areas (and reference populations) may experience problems when patients move across hospitals.

- However, a Global Budget was applied successfully Regionally in Rochester NY for a group of Urban/Suburban hospitals.

- Strong Quality-Based Incremental Incentive (P4P) Programs required to offset tendency to reduce quality or restrict care.

- One alternative approach is a Hybrid System of Global Budgets for rural hospitals and DRGs with a Volume Adjustment System for others.

- Challenges in extending Global Budgets to non-hospital services.