

# 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

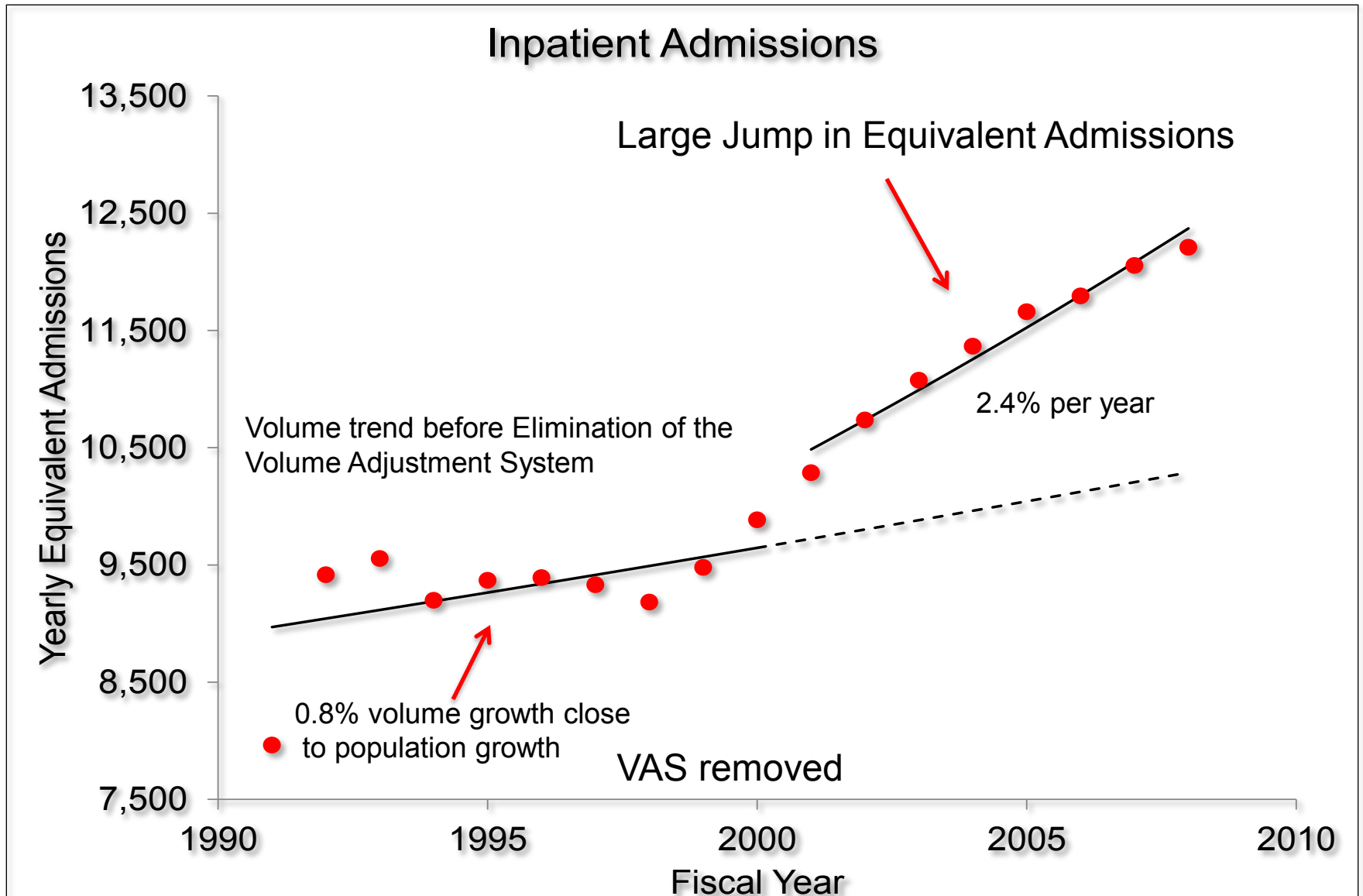
# Health Services Cost Review Commission

- 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<sup>7</sup>

# Inpatient and Outpatient Volumes Exploded after Elimination of the Volume Adjustment System





# 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 reinstated 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

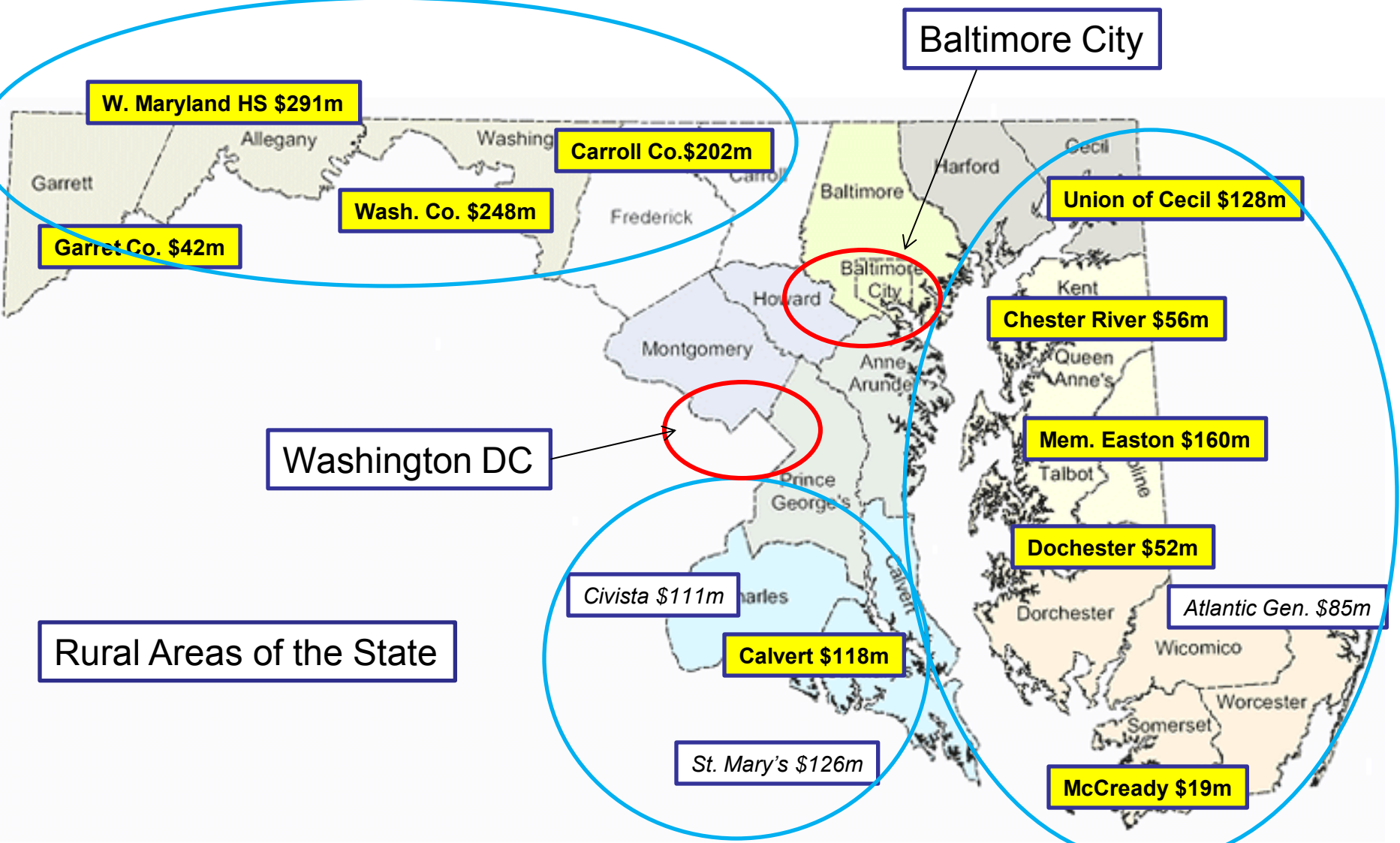
- The Structure of hospital payment (degree of bundling of services) will have an impact on the incentives for cost control
- In general, broader payment structures – transfer more financial risk to hospitals and provide stronger incentives for cost control
- The table below shows how cost control incentives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

More Risk



| Basis of Payment               | Unit Costs | Ancillaries/day | Length of Stay | Admission/Readmissions |
|--------------------------------|------------|-----------------|----------------|------------------------|
| Unit Rates (line item charges) | ★          |                 |                |                        |
| Per Diems                      | ★          | ★               |                |                        |
| Per Case (DRGs)                | ★          | ★               | ★              |                        |
| Hospital Global Budget         | ★          | ★               | ★              | ★                      |

# 10 Pilot Global Budgets for Isolated Rural Hospitals With a Clear “Reference Population”



# 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 a 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:  $\text{Prices} \times \text{Volumes} = \text{Global Budget}$
- 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

Global Budgets were easier to administer than DRG system

## 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              |           | Estimated Cost Inflation Trend | Population Growth & Aging in County | Performance Year Actual         | Change |  |
|------------------------------------|-----------|--------------------------------|-------------------------------------|---------------------------------|--------|--|
| Base Year                          |           | 2.50%                          | 1.15%                               |                                 |        |  |
| <b>Historical Revenue = \$250m</b> |           | Adjustments:                   |                                     | <b>Enforced Cap = \$259.2 m</b> |        |  |
| Base Year Revenue                  | \$250.0 m | 1.025                          | X 1.0115                            | \$259.2 m                       | 3.7%   |  |
| Base Year Expenses                 | \$245.0 m | Input Cost Index               | Area Demographics                   | \$251 m                         | 2.4%   |  |
| Operating Margin                   | \$5.0 m   |                                |                                     |                                 | \$8.2  |  |
| Operating Margin %                 | 2.00%     |                                |                                     |                                 | 3.16%  |  |

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

# Requirements of New Global Budget Demonstration (2014-2018)

- 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<sup>18</sup>

# 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<sup>20</sup>

# 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