## **ABSTRACT: 2017 ELAM Institutional Action Project Symposium**

Project Title: Measuring the ROI of a hospital merger: A tripartite mission framework

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Collaborators: Janice Clements, Robert Higgins, Ron Werthman, Nicole Welsh

**Background, Challenge or Opportunity:** Health care delivery is being consolidated across large health systems with mergers of traditional academic health centers (AHC) with community hospitals. However, majority of mergers fail to either deliver the anticipated savings or fail due to clash of organizational cultures. In particular, when AHC's merge with community hospitals, there is conflict of mission and scope resulting in failure of mergers. An understanding of the true investment and returns of health care mergers using a tripartite mission lens of clinical, education and research is needed for AHC's in assessing post-merger integration success.

**Purpose/Objectives**: Johns Hopkins Health System (JHHS) acquired 4 hospitals in the Washington DC Metropolitan area in recent years including Sibley Community Hospital (SCH) in 2010 in Washington DC. Post-merger plans for SCH were to develop this facility into a marque parallel cancer center. Substantial financial investment has been made into SCH since the acquisition with addition of a 200-bed tower in 2016 and plan to build a proton beam facility in 2019 (projected cost \$150-200million). The purpose of this project was to define the value proposition of a hospital merger from the perspective of both the AHC and the community hospital over a defined time period. This initial framework can then be used to assess health care mergers in other arenas such as other acquisitions or creation of service lines.

**Methods/Approach**: An academic framework was used focusing on measuring the Return on Investment (ROI) along the tripartite mission i) Clinical, ii) Educational and iii) Research metrics. A selected area of focus, Oncology, was selected for the project. Measures along each axis of the tripartite mission were identified pre-merger and post-merger - followed over a five year period. Given the complexity of the health system and the Maryland Cost Commission insurance structure, initial metrics were derived from the community hospital, SCH.

Outcomes and Evaluation Strategy: The project was initiated with engagement of all stakeholders from JHHS and SCH. Initial discussions held with senior leadership including the Dean and Vice President of Interdisciplinary Patient Care, CFO along with Chairs of all clinical Department. A coalition of supporters was built and a process of regular engagement was initiated. Key metrics from JHHS and SCH that would address the dimensions along the tripartite mission were identified and data gathered pre-merger. Clinical metrics included financial metrics as well as quality and safety metrics. Research metrics included number of clinical trials, grant funding/publications and Educational metrics included training for medical students and residents. Initial analysis reveals increase in clinical performance as well as quality and safety along with research activity. Education integration is still being planned. Future work will assess additional financial metrics. A similar framework will then be applied to the parent AHC and a prospective academic dashboard will be created. This framework will eventually allow assessment of post-merger success using an academic value unit framework.



# Measuring the ROI of a Hospital Merger: A Tripartite Mission Framework

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### **Background**

Health care delivery is being consolidated across large health systems with mergers of traditional academic health centers (AHC) with community hospitals. However, majority of mergers fail to either deliver the anticipated savings or fail due to clash of organizational cultures. An understanding of the true investment and returns of health care mergers using a tripartite mission lens of clinical, education and research is needed for AHC's in assessing post-merger integration success.

Johns Hopkins Health System (JHHS) acquired 4 hospitals in the Washington DC Metropolitan area in recent years including Sibley Community Hospital (SCH) in 2010 in Washington DC. Post-merger plans for SCH are to develop this facility into a marque parallel cancer center. Substantial financial investment has been made into SCH since the acquisition with addition of a 200-bed tower in 2016 and plan to build a proton beam facility in 2019 (projected cost \$150-200million). The purpose of this project was to define the value proposition of a hospital merger from the perspective of both the AHC and the community hospital over a defined time period. This initial framework can then be used to assess health care mergers in other arenas such as other acquisitions or creation of service lines.

### **Objectives**

We hypothesize that quantifying hospital merger ROI can be challenging leading to missed opportunities for growth. Our objective is to adopt a tripartite approach of analyzing post merger integration success (Clinical, Research, Education) and provide a stable framework to measure ROI

### **Methods**

An academic framework was used focusing on measuring the Return on Investment (ROI) along the tripartite mission: i) Clinical, ii) Educational iii) Research metrics, A specific area of focus, Oncology, was selected for the project. Measures along each axis of the tripartite mission were identified premerger and post-merger - followed over a four year period. Given the complexity of the health system and the Maryland Cost Commission insurance structure, initial metrics were only derived from the community hospital, SCH.



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### **Outcomes**

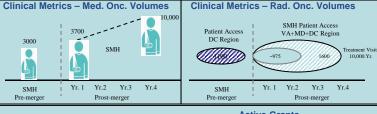
### **Johns Hopkins Hospital System**

Total Assets \$3,948M Net Oper. Rev. \$3,787M Total Expenses \$3.648M Oper. Income \$ 139M Oper Margin

3.7% Ratings: Moody Aa3; S&P AA

Total Assets \$ 808M Net Oper. Rev. \$ 245M Total Expenses \$ 239M Oper. Income \$ 6M Oper, Margin 2.6% Ratings: Moody A2; S&P A

**Sibley Memorial Hospital** 





Trainees: Residents. Fellows Trainees : Students Education Metrics Pre-merger: None Pre-merger: None Post-merger: FY'18 (Surg., Ob-Gyn, Med./ Rad. Onc) Post-merger: FY'19 (Surg, Ob-Gyn, Med.)



### **Merger Goals - ROI Metrics**

#### **Merger-Integration Strategic Goals**

- SMH + JHH System Brand to strengthen presence in NCR (DC-VA)
- Patient & Program growth to infuse high revenue and margin services

#### □ CLINICAL METRICS

: Patient Volumes and Revenues - Medical Oncology; Rad Onc pre-merger vs. post-merger over 5 year period

#### ☐ RESEARCH & EDUCATION METRICS

- Clinical Trials: Pre-merger vs. post-Merger over 5 year period
- Grants: Applications, Approved pre-merger vs. post-merger
- : PUBS : Number of publications pre-merger vs. post-merger

#### □ PROGRAM METRICS

: Program Performance & Growth Metrics for each distinct 'Program'

### **Conclusions & Next Steps**

- ☐ Measuring Hospital Merger ROI requires unique set of metrics which are tailored around Hospital Services. Traditional revenue, expense metrics, while important, should be tempered with other
- ☐ Implementing a 'Tripartite Framework' to measure hospital merger ROI provides 'deep & focused' quantifiable metrics to help direct targeted revenue and market share growth actions.
- ☐ ."Focus on What Matters"... Setting a metrics framewrork during premerger stage helps marshal organizationl actions and focus.
- ☐ Next Steps: Refine with additional metrics (Quality) and test the framework at the other sites.

### Acknowledgments

- ☐ Mentors: Janice Clements, Robert Higgins and Paul Rothman
- ☐ Deidre Torto, Akila Visvanathan, Sheila Evans, Michael Cardamone

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