

## ABSTRACT: 2015 ELAM Institutional Action Project Poster Symposium

**Project Title:** *Take a Deep Breath: The Baylor College of Medicine Lung Institute: A New Paradigm of Care*

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**Collaborators:** David Sugarbaker, MD; Kalpalatha Guntupalli MD; Alicia Monroe, MD, Sarah Moser

**Background, Challenge or Opportunity:** Houston is the fourth largest city in the US; it is ranked No. 1 among the US manufacturing cities (Greater Houston Partnership Research, 2014) and is the center of the oil and gas industry. The lung disease prevalence, calculated by the American Lung Association for Metro Houston estimates over 326,800 cases of adult asthma, 230,000 instances of COPD and 3,680 cases of lung cancer. This accounts for 25% of all cases in the state of Texas. The city is the home of the **Texas Medical Center**, the largest medical complex in the world. *Despite this there is no defined lung center of excellence that incorporates multidisciplinary care, education and research existing in this great medical center today.*

**Purpose/Objectives:** To create a *Lung Center of Excellence* whose mission is to "heal lung disease through comprehensive patient centered care" and become the global destination of choice for advanced care, discovery and scientific knowledge in lung health. It defines a *Lung Institute* that is committed to excellence in collaboration, compassion, training and innovation. BCM and the departments of Pulmonary and Thoracic Surgery, will create this entity. *We will create a patient-centered environment that delivers state of the art respiratory care using all available technology, employ multidisciplinary teams, design and build physical space for the Center that will also engage in cutting edge research.*

**Methods/Approach** We estimated the lung disease prevalence in the Houston area. This included an evaluation of service growth trends using MS-DRG data for common diagnoses and calculating inpatient discharge volumes and estimated current procedure volumes for pulmonary services. A steering committee of stakeholders was established composed of clinical physician leaders of pulmonary and thoracic surgery, basic and translational researchers, administrators, and officials from the offices of BCM development and finance. This group drafted a document of governance structure and created an organization structure. A retreat with stakeholders was conducted and a hospital partner was identified: Baylor-St Luke's Medical Center (BSLMC), who is in a joint venture (JV) partnership with BCM. Potential space was located and meetings held with architects to design the *Institute* space. Final budget is under review by finance and meetings are being conducted with stakeholders/ grateful patients/donors/and community partners.

### **Outcomes and Evaluation Strategy:**

Activation teams were created to initiate central scheduling; branding; web page; patient navigators; algorithms of care, etc. Negotiations continue on space and overall strategy of hospital vs clinic based *BCM Lung Institute*. Metrics include patient volume, new visits, complexity of diagnosis, referrals and volume of diagnostic services and quality indicators. Long term strategy will include recognition of the Institute as the destination for lung care in the Southeast region of the United States.

Marcia F. Katz MD, David Sugarbaker, MD; Kalpalatha Guntupalli MD; Sarah Moser, Edith Hu; Alicia Monroe, MD

## Background/Challenge/Opportunity

- *Houston* is the fourth largest city in the US; it is ranked **No. 1** among the US manufacturing cities (Greater Houston Partnership Research, 2014).
- *Houston* is the center of the oil and gas industry.
- The lung disease prevalence, calculated by the American Lung Association for Metro *Houston* estimates over 326,800 cases of adult asthma, 230,000 instances of COPD and 3,680 cases of lung cancer. This accounts for 25% of all cases in the state of Texas.
- The city is the home of the **Texas Medical Center**, the largest medical complex in the world.
- Despite this there is no defined **lung center of excellence** that incorporates multidisciplinary care, education and research existing in this great medical center today.

## Purpose

To create a **Lung Center of Excellence** whose mission is to "heal lung disease through comprehensive patient centered care" and become the global destination of choice for advanced care, discovery and scientific knowledge in lung health.

## Methods

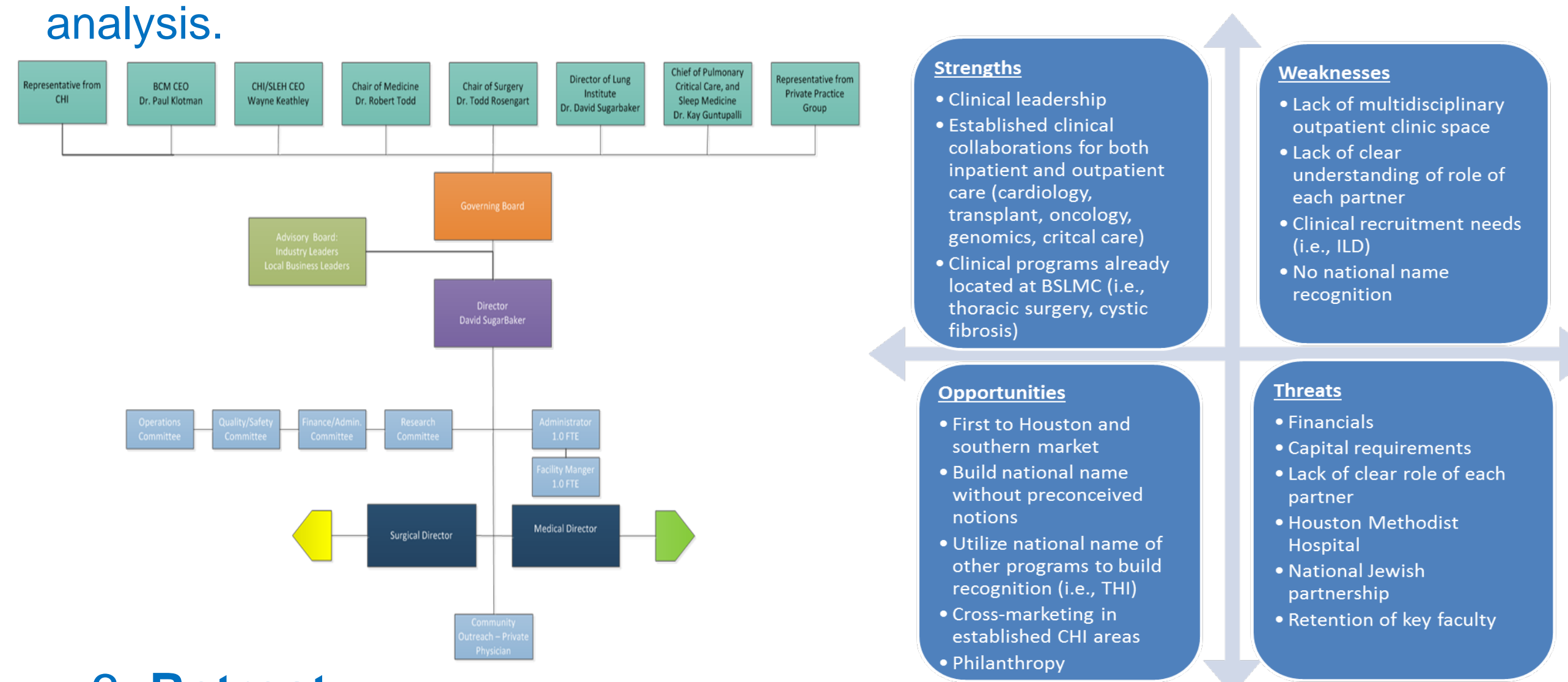
**1. Population/Payer Mix/DRG analysis:** Identify the lung disease prevalence in the Houston area. This included an evaluation of service growth trends using MS-DRG data for common diagnoses, e.g. COPD and calculating inpatient discharge volumes and estimated current procedure volumes and revenue for pulmonary services.

DRG Number and Name	Hospital Name	Discharges	% of Total	Charges
190 CHRONIC OBSTRUCTIVE PULMONARY DISEASE W MCC	KINGWOOD MEDICAL CENTER	227	5.7%	\$12,581,780
	CONROE REGIONAL MEDICAL CENTER	227	5.7%	\$13,515,258
	MEMORIAL HERMANN NORTHEAST HOSPITAL	179	4.5%	\$4,535,899
	MEMORIAL HERMANN SOUTHEAST HOSPITAL	162	4.1%	\$3,879,666
	TOMBALL REGIONAL HOSPITAL	148	3.7%	\$5,170,060
	MAINLAND MEDICAL CENTER	145	3.7%	\$8,293,340
	CLEAR LAKE REGIONAL MEDICAL CENTER	142	3.6%	\$10,465,897
	NORTH CYPRESS MEDICAL CENTER	134	3.4%	\$9,407,026
	SAINT LUKES EPISCOPAL HOSPITAL	130	3.3%	\$6,488,369
	THE METHODIST HOSPITAL	128	3.2%	\$6,728,107
	SAN JACINTO METHODIST HOSPITAL	122	3.1%	\$6,608,376
	METHODIST SUGAR LAND HOSPITAL	110	2.8%	\$4,973,944
	MEMORIAL HERMANN MEMORIAL CITY HOSPITAL	108	2.7%	\$2,625,677
	MEMORIAL HERMANN NORTHWEST HOSPITAL	105	2.6%	\$2,793,323
	HOUSTON NORTHWEST MEDICAL CENTER	99	2.5%	\$5,161,775
	MEMORIAL HERMANN SOUTHWEST HOSPITAL	95	2.4%	\$2,272,786
	MEMORIAL HERMANN - THE WOODLANDS HOSPITAL	87	2.2%	\$2,047,522
	MEMORIAL HERMANN KATY HOSPITAL	87	2.2%	\$1,900,971
	METHODIST WILLOWBROOK HOSPITAL	86	2.2%	\$3,716,522
	BAYSHORE MEDICAL CENTER	81	2.0%	\$4,794,936
	ST. LUKES COMMUNITY MEDICAL CENTER - THE WOODLANDS	75	1.9%	\$2,875,114
	TEXAS CHILDRENS HOSPITAL	48	1.2%	\$5,668,413
	MEMORIAL HERMANN - TEXAS MEDICAL CENTER	43	1.1%	\$1,625,477
	All others	1,199	30.2%	\$74,428,290
	Total	3,967	100.0%	\$202,559,628

Service Area Population Density

## Methods cont.

**2. Stakeholders:** A steering committee of stakeholders was established composed of clinical physician leaders of pulmonary and thoracic surgery, basic and translational researchers, administrators, and officials from the offices of BCM development and finance. This group drafted a document of governance structure, created an organization structure and did a **SWOT** analysis.



## 3. Retreat

A retreat with stakeholders was conducted in October 2014 and a hospital partner was identified: Baylor-St Luke's Medical Center (BSLMC), who is in a joint venture (JV) partnership with BCM.



Stakeholders

## 4. Creation of Mission Statement:

The BCM Lung Institute is Dedicated to Providing:

- Compassionate** care in a **Patient-Centric** environment utilizing **Cutting edge** translational, innovative, and effective therapies that provide **Continuity of care** for our patients and their families, fostering **Collaborations** and partnerships with community healthcare professionals and **Community Outreach**

## Outcomes:

### Baylor Lung Institute



- Potential space has been located and meetings held with architects to design the Institute space.
- Final budget is under review by BCM/BSLMC finance.
- Organizational implementation ongoing.
- Philanthropy: Meetings are being conducted with stakeholders/ grateful patients/donors/and community partners.
- Soft opening March 6, 2015
- Project with proforma/budget to be presented to JV Board for final approval June, 2016.
- Recognition of the Baylor Lung Institute as the destination for lung care in the Southeast US.

## Discussion:

- Creation of a multidisciplinary center of excellence can be accomplished with diverse stakeholders successfully.

## Next steps:

