

## ABSTRACT: 2017 ELAM Institutional Action Project Symposium

**Project Title:** Building an academic cancer center in a system network of hospitals

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**Collaborators and Mentors:** Barbara Bass (Chair, Surgery) and Brian Butler (Chair, Radiation Oncology)

### Background, Significance of project:

Houston Methodist Hospital (HMH) is a premier academic hospital, ranked first in the state of Texas by U.S. News and Report. The main campus serves as the central hub, overseeing the clinical cancer operations of all 7 hospitals of the HMH network system. The Houston Methodist Cancer Center (HMCC) is the collaborative engine driving research initiatives geared to enhance wellness and better predict, prevent, and treat disease. The HMCC is comprised of a 28,000-square-foot laboratory space and 40,000-square-foot Cancer Care Center dedicated to providing comprehensive multidisciplinary management for all cancer types. The HMCC also supports centralized tissue bank, genomics and bioinformatics, and pathology facilities. HMCC's research support, which includes 2 NIH center grants and an \$11 million DoD grant, exceeds \$13 million annually.

### Purpose/Objectives:

The primary focus of this Project is to establish a world-class academic oncology service line in the HMH network system that is patient centered and offers state-of-the-art clinical care and translational transformative research. Our mission is to advance our position as a nationally recognized leader in providing comprehensive integrated cancer services and clinical translational research that achieve superior outcomes through patient-centered value based care.

### Methods/Approach:

1) Patient-centered clinical care and excellence: *Excellence in patient care with annotated metrics and benchmarks and quality measures that exceed national parameters is one of my career goals.* Under my leadership, infusion centers have been established across the HMH network. Over the next 5 years, we will build upon this infrastructure to coordinate an interdisciplinary service line, under the leadership of the HMCC Executive Director and with overall governance from medical, surgical, and radiation oncology. Ancillary services (genetic counseling, nutritional and psychosocial support) and clinical trials in our network hospitals will be coordinated centrally at the main campus. Benchmarks for patient safety and outcomes require constant improvement and monitoring. Tools and skills acquired through the *ELAM* program will facilitate the implementation of improved quality measures across the HMH network.

2) Basic and translational research: *Transforming patient care through bench-to-bedside research is a 5-year goal.* The HMCC supports cancer immunobiology, epigenetics/inflammation, gene and cell therapy, nanotechnology, and stem cell biology research programs. These programs are uniquely resourced by the Cancer Prevention Research Institute of Texas, which has allocated over \$30 million to the HMCC since 2010. One of my major achievements as Director of the HMCC has been the establishment of a clinical research program. Initially, this program consisted solely of pharmaceutical-driven phase III studies but has grown and thrived to now encompass phase I and investigator-initiated studies. Over the next 5 years, we aim to expand the clinical trials conducted across the HMH network as well as clinical trial access to underserved patient populations.

### Outcomes and Evaluation Strategy:

- 1) Increased patient recruitment to investigator-initiated, cooperative, and pharmaceutical studies. All phases of clinical research from prevention to phase I/II/III studies will be implemented. *Metric:* 10% increase in patient recruitment per annum
- 2) Increased clinical volume. *Metric:* ~5% annual increase in the commercial insured population.
- 3) Quality measures. *Metric:* Decrease length of stay, mortality, and readmissions to best 90<sup>th</sup> percentile of national benchmarks.

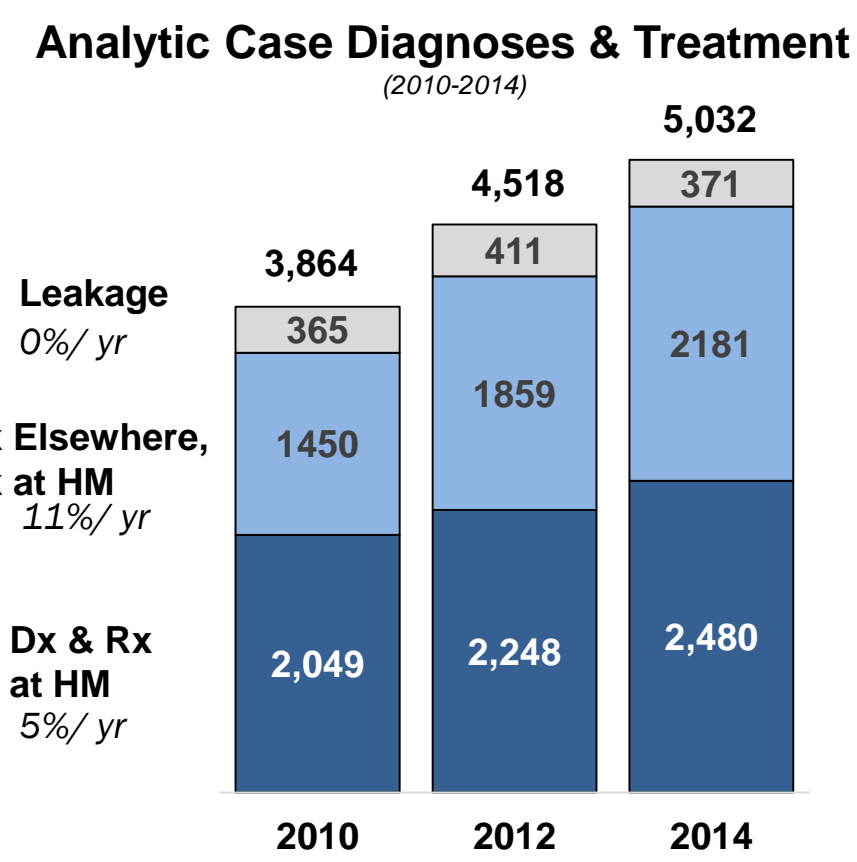
### Conclusion with Statement of impact/potential impact:

The ELAM program will equip me with the strategic skills necessary to establish a state-of-the-art academic oncology service line in the HMH network system that delivers high-quality patient-centered care and high-impact clinical research.



## Background

- Current Position:** Cancer is one of HM's strongest programs:
  - Inpatient commercial share 17.5% (#2)
  - 4th largest research dept. at HMRI, representing 12% of all extramural funds
  - 50% of all active research at HMRI is related to cancer.
- Recent Growth:**
  - Exceeded the 2012 growth goals established for infusion, radiation therapy, surgeries and clinical trial enrollment.
  - Analytic cases grew from 2010-2014:
    - Cases diagnosed elsewhere and treated at HM grew by 11% per year
    - Analytic cases that were diagnosed and treated at HM grew by 5% per year
  - International patients grew from 375 (2010) to 517 (2014)



## Purpose

- Clinical Research is essential in Cancer Care
- Increase value to local community
- Opportunities in Current Funding Environment
- Improving Cancer Care will Benefit Entire Hospital System

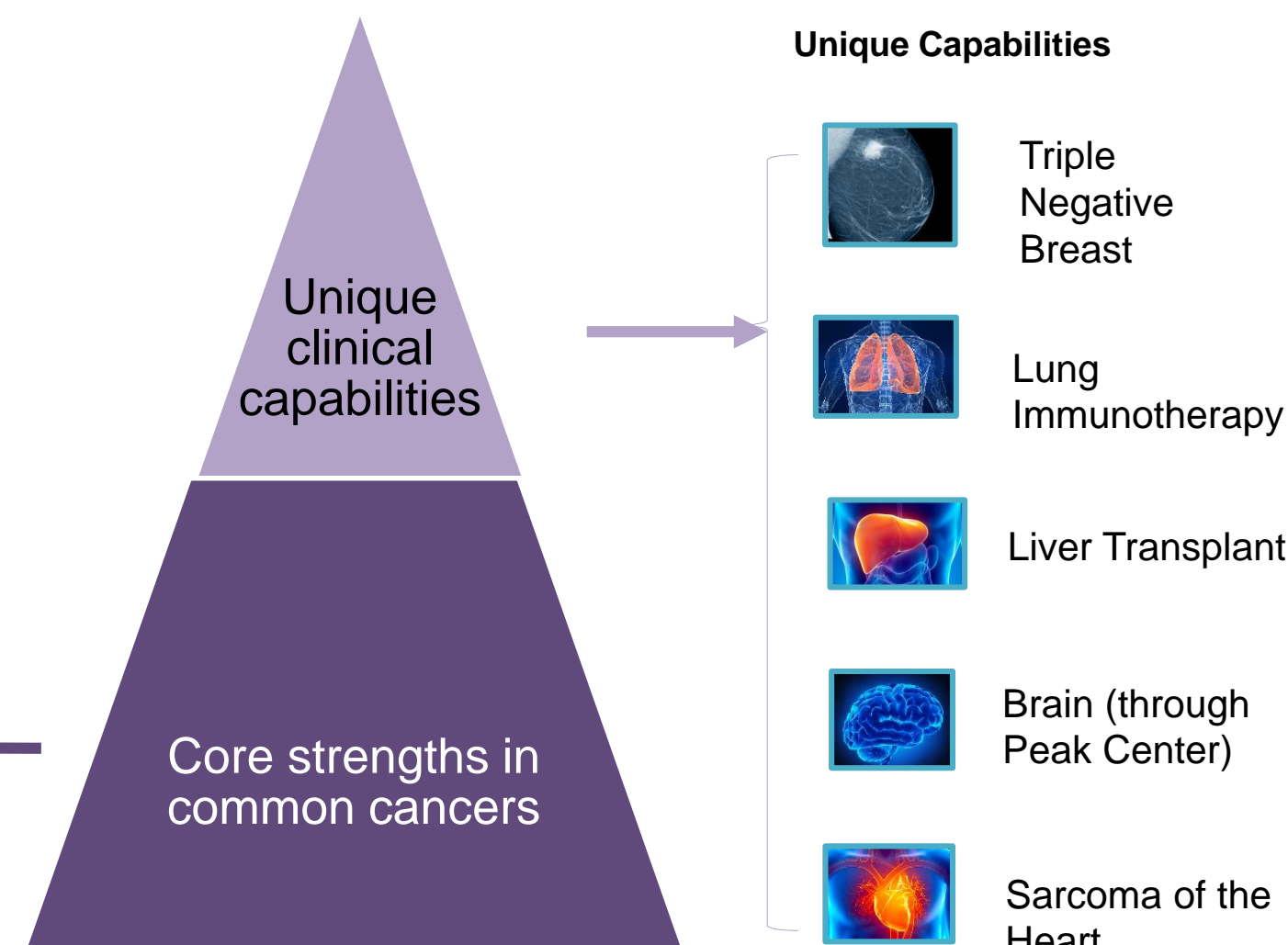
## Approaches

### 1. Build Clinical Programs

Houston Methodist has five nationally recognized flagship programs, with core strengths in four common cancers.

#### Core Strengths

- Breast (all other)
- Hematology
- GI (Colorectal & Pancreas)
- GU (Prostate, Kidney, Bladder)



## Approaches

### 2. Offer Original Clinical Trials

HM will work to increase the number of originated clinical trials and the percentage of patients enrolled, which will differentiate HM in the community.

#### Clinical Trial Resources and Plan (Medical Oncology)

- 14 staff in Clinical Trials office in RI today
- One community RN today
  - Adding one more (2016)
  - Will add additional clinical trial nurses as volume grows
- Data manager
- EPIC will have functionality for alerts to identify patients that might be considered for clinical trial

## Approaches

### 3. Research Strategies

The Houston Methodist Research Institute has deep expertise in cancer research across a broad set of platforms. Moving forward, the vision for cancer research at Houston Methodist is to build on existing platform strengths to create 4 programs that are transformational, translational, and interdisciplinary.

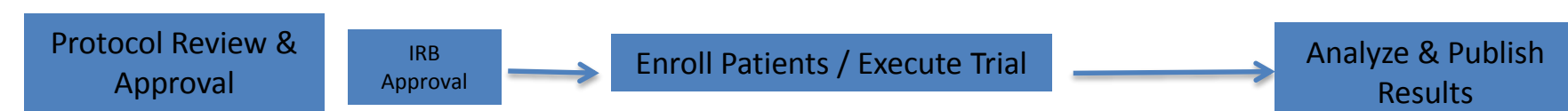
#### Cancer Strategy: Research

- I Interdisciplinary programs that are *nationally recognized* and relevant
  - Immunotherapy
- II Science that *pushes into translational research*
  - Innovative Therapy & Nano
- III Novel therapeutics and *clinical trials that draw patients* to Houston Methodist
  - Imaging & Theranostics & Biomarkers
  - Cancer Biology

## Discussion

**Build the clinical trial infrastructure:** Leverage HMM's unique research capabilities and assets, and develop plans to increase clinical trials and expand access to clinical trials in the community.

#### Cancer Strategy: Research

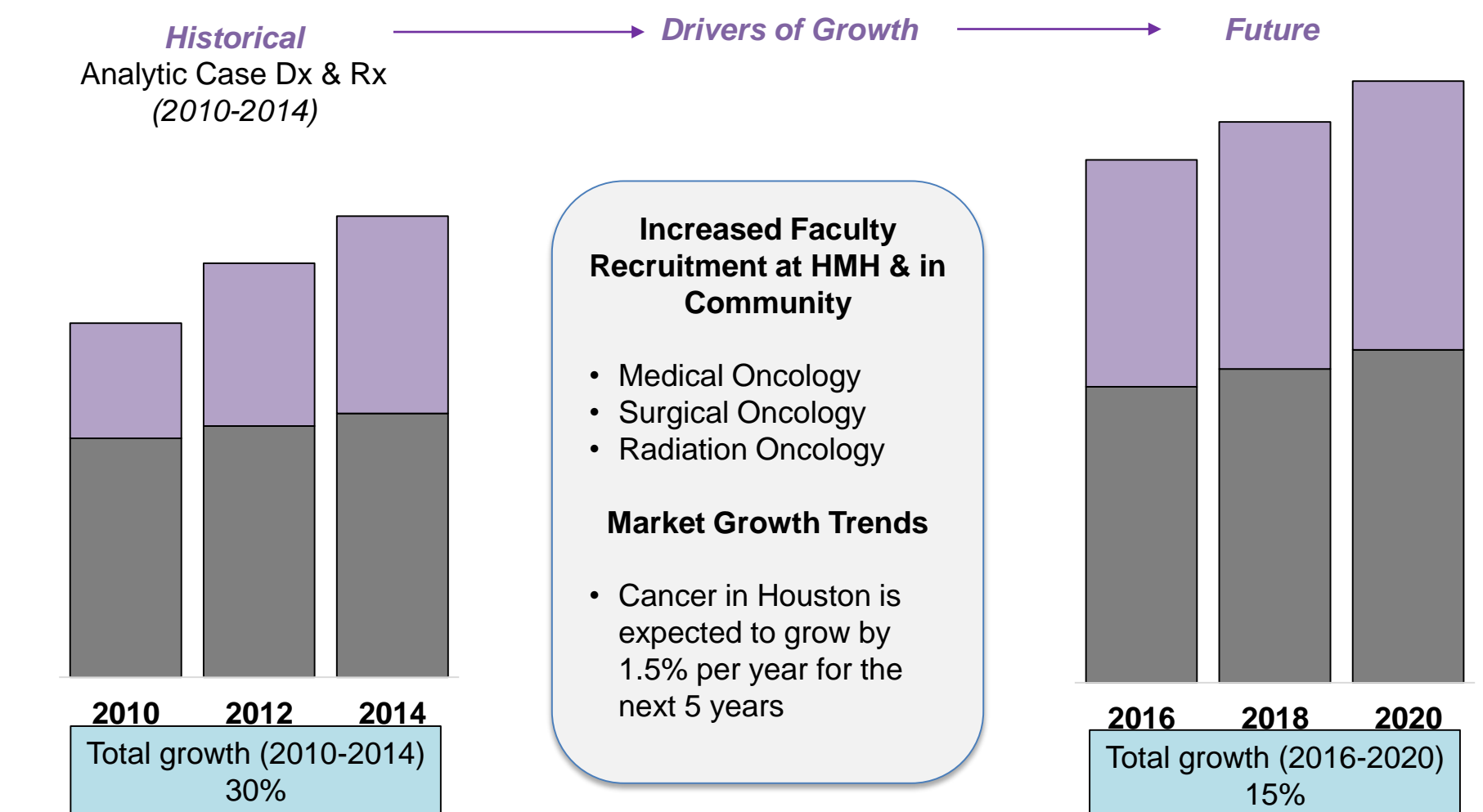


- Does the trial fit with our strategic objectives?
- Do we have the resources to execute the trial? If not, can we find them?
- Do we have the funding for the trial? Do we have the patient population?
- How do we educate/communicate our available trials to physicians and patients?
- How do we identify and enroll patients and what processes are needed to conduct, monitor and bill for the trial at HMM and in the community?
- Do we have the resources and expertise to conduct analysis and publish results?

## Outcomes

### Clinical Trial Growth Expectations

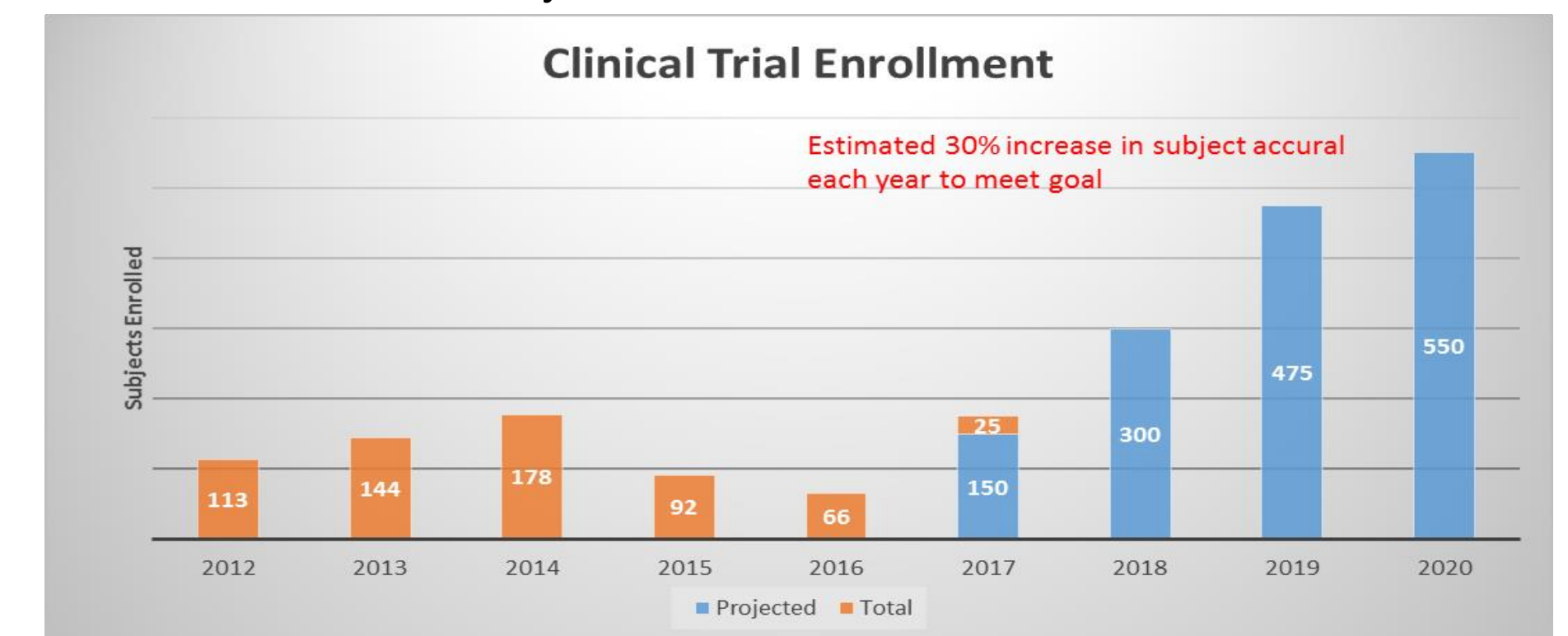
The above mentioned strategies will complement a five year recruitment plan that expects to achieve an additional 15% growth by 2020



## Outcomes

### Clinical Trial Growth Expectations

Focus on increasing enrollment for existing trials, and balance opening new trials with the growth of the cancer program  
Preliminary Clinical Research Performance Goals



## Summary

- 1) Increased patient recruitment to investigator-initiated, cooperative, and pharmaceutical studies. All phases of clinical research from prevention to phase I/II/III studies will be implemented.
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- 3) Quality measures.
  - Metric:* Decrease length of stay, mortality, and readmissions to best 90<sup>th</sup> percentile of national benchmarks