**Motivation / Problem**

US Healthcare Industry at a glance:
- In 2005 expenses were more than 16% of the GDP, and hospital care alone accounted for the largest portion of expenditure, 30.8%.
- In 2000 medical errors in hospitals are suggested as the 3rd leading cause of death in the nation (as many as 98,000 a year).

The Healthcare industry is a complex socio-technical system:
- Comprised of multiple stakeholders driven by incentives which often times are not aligned with one another.
- With compromised ability to deliver to the patient the appropriate care, at the appropriate time, at the appropriate location, and at an adequate cost.

Hospitals find themselves scrambling to cope with:
- A broken system that continuously issues new requirements and shortages available budgets while demanding the latest innovations.
- The absence of a systematic approach that encompasses the whole enterprise, both within and outside immediate boundaries of control.

**Key Questions**

**RQ1:** How is hospital enterprise performance currently measured?
**RQ2:** How could hospital enterprise performance measurement be improved using lean enterprise principles?
**RQ3:** How does hospital enterprise architecture relate to hospital enterprise performance?

**Research Roadmap**

- Exploratory Case 1
  - Boston Hospital
- Literature Review
- Exploratory Case 2
  - London Hospital
- RO1
  - 7 Massachusetts Hospitals
- RO2
  - 7 Massachusetts Hospitals
- RO3
  - In-depth Case Boston Hospital
- Conclusions

**The Research**

Early 2007, an integrated multi-specialty group practice and academic medical center, voiced concern about its Emergency Department (ED).

Study results yielded:
- Tactical mindset and change initiatives had led to local sub-optimization
- ED did not operate in a vacuum and competed for resources elsewhere in the hospital
- Disparate electronic medical records crippled the organization
- Significant problems were beyond immediate organizational control

**Hypothesis**

Multiple configurations of Enterprise Architecture exist within a single hospital yielding varying degrees of performance

**Preliminary Results**

Six months of exploratory research conducted at two leading hospitals, one in the UK and another in the US:
- Despite very different regulatory and payment environments both sites exhibit similar operational and strategic issues (i.e. overcrowding; clinical and management silo behavior across departments; weak informational flow beyond hospital boundaries; serving local community vs. national/international; etc)
- Different aspects of Enterprise Architecture prevalent at each site
- Multiple configurations of Enterprise Architecture were present within each single hospital and vary in performance

Hospital performance measurement literature compare and contrast with empirical data:
- Contrary to predominant literature, hospitals do adopt multidimensional performance measurement practices but these are mostly set from external entities and in silo fashion.
- Literature and empirical data agree in the top 3 and lower 3 preferred performance dimensions

**Publications**


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