



Clinical Safety & Effectiveness
Cohort 16 | Team 4

**DECREASE PATIENT LENGTH OF STAY (LOS)
THROUGH USE OF "ANTICIPATE DISCHARGE"
ORDERS ON 5ACU**



The Team

- **CS&E Participant**

- Kanapa Kornswad, MD Clinical Professor/Hospitalist, Medicine Service
- Ronald Estrella, RN Executive Director, Medicine Service Line
- Mario Legarde III, RN Clinical Nursing Director, Medicine Service Line
- John Rees, RN Patient Care Coordinator, 5ACU
- Sadaf Rafique, MS Manager, Health Analytics

- **Ad Hoc Team Members**

- Sebastian Padron Director, Ambulatory Care Coordination
- Dorothy Krumbholz Care Coordination Director, Inpatient
- Medical and Nursing team 5ACU

- **Sponsor**

- Luci Leykum, MD, MBA Division Chief, Hospital Medicine
- James Barker, MD , CPE VP/Medical Director, University Hospital

- **Facilitator**

- Edna Cruz, RN Improvement Consultant, Clinical Safety & Effectiveness

Aim Statement

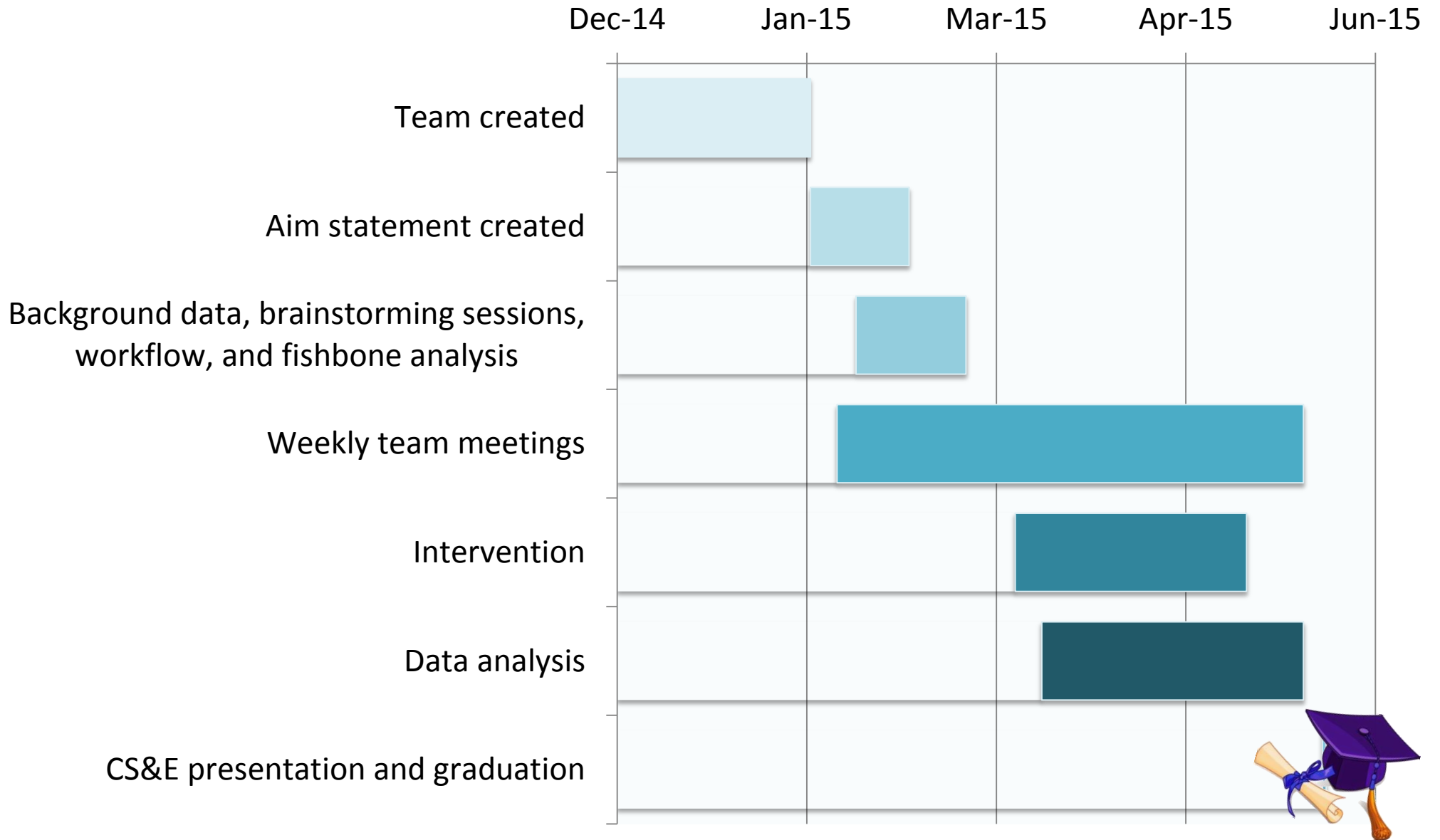
The aim of this project is to **decrease patient length of stay** (LOS) through use of “anticipate discharge” orders on **5ACU** from **6.9 days** to **6.4 days** by May 17th.

The process begins with admission to UH and ends when patient is discharge home or to a facility.



It is important to reduce patient length of stay to increase capacity for the Health System, resulting in bed availability, reduction in wait times, and improved patient experience.

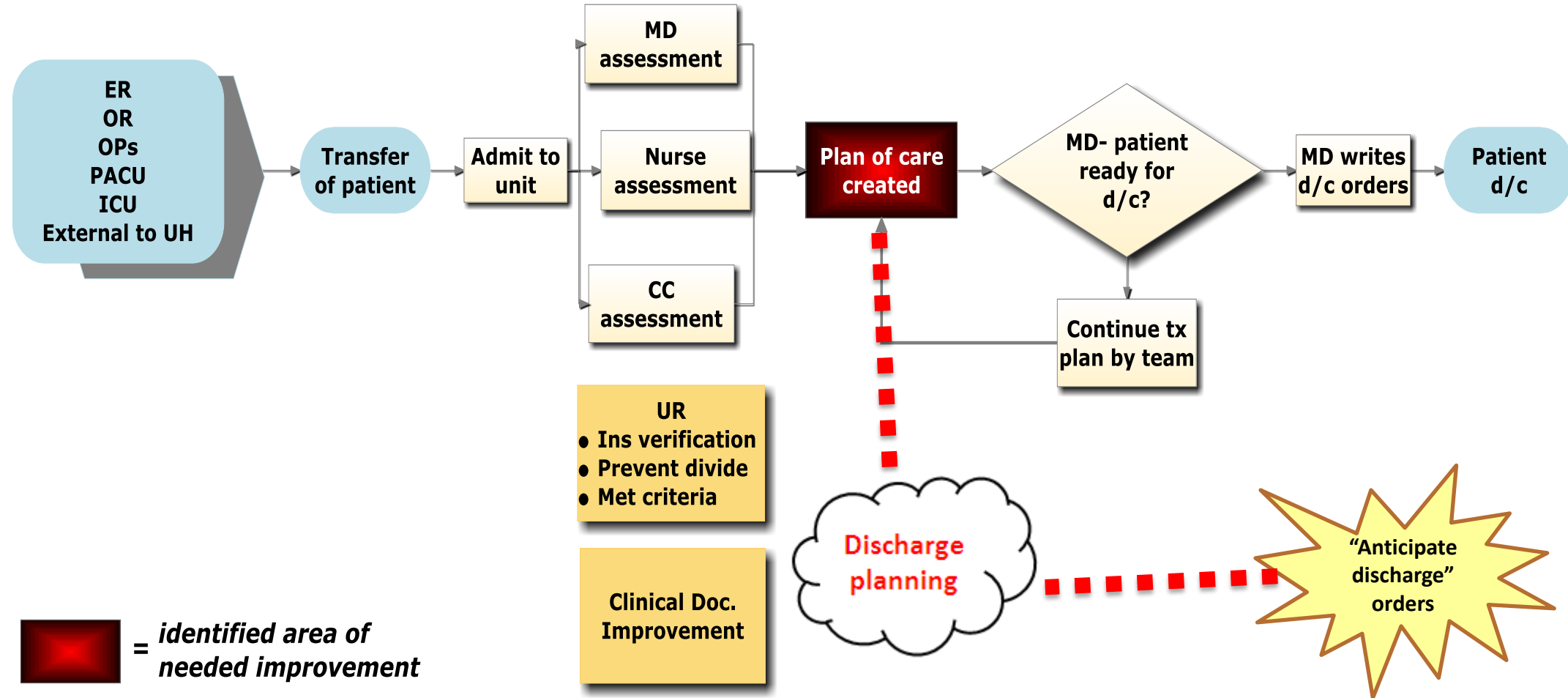
Project Milestones



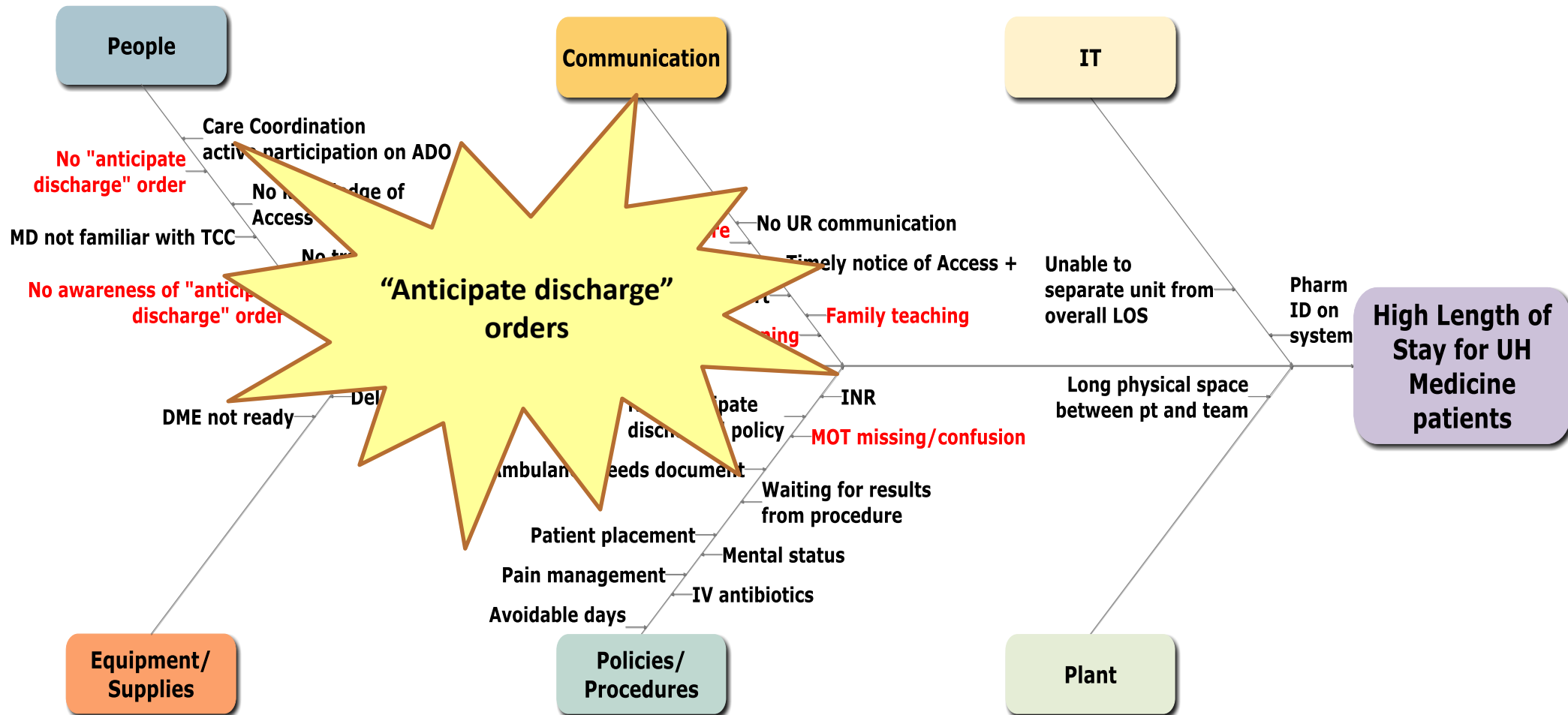
Background

- **Problem** – Patients, nurses, physicians and care coordinators do not communicate effectively about discharge dates, times, and needs resulting in delays in the discharge process
 - Issues with midday discharge bottleneck and geographic localization
 - Discharge planning begins upon admission; much of work waits until patient is nearly ready to leave. **National Benchmark for Medical Surgical Unit Length of Stay (LOS) is 5.2 days**
 - Recommendations: revisit morning rounds; use of anticipate discharge orders
- **Literature** – Anticipated discharge orders written 1 – 2 days prior to actual discharge date allow care teams to support scheduled times for discharges and reduce length of stay*
 - *Emergency Department LOS independently predicts excess inpatient LOS.*
 - **Payors** (e.g., CMS) look at LOS as a measure of cost control
 - **Hospital** standpoint is shorter LOS allows for greater capacity and more efficient use of resources
 - **Patient/provider** standpoint is short LOS demonstrates a streamline process
- **Rationale** – Use of anticipated discharge orders provide for effective communication among care givers. Patients and staff expectations for the time and date of the discharge are met. This allows for effective planning which promotes patient safety and improves the finances of the facility.

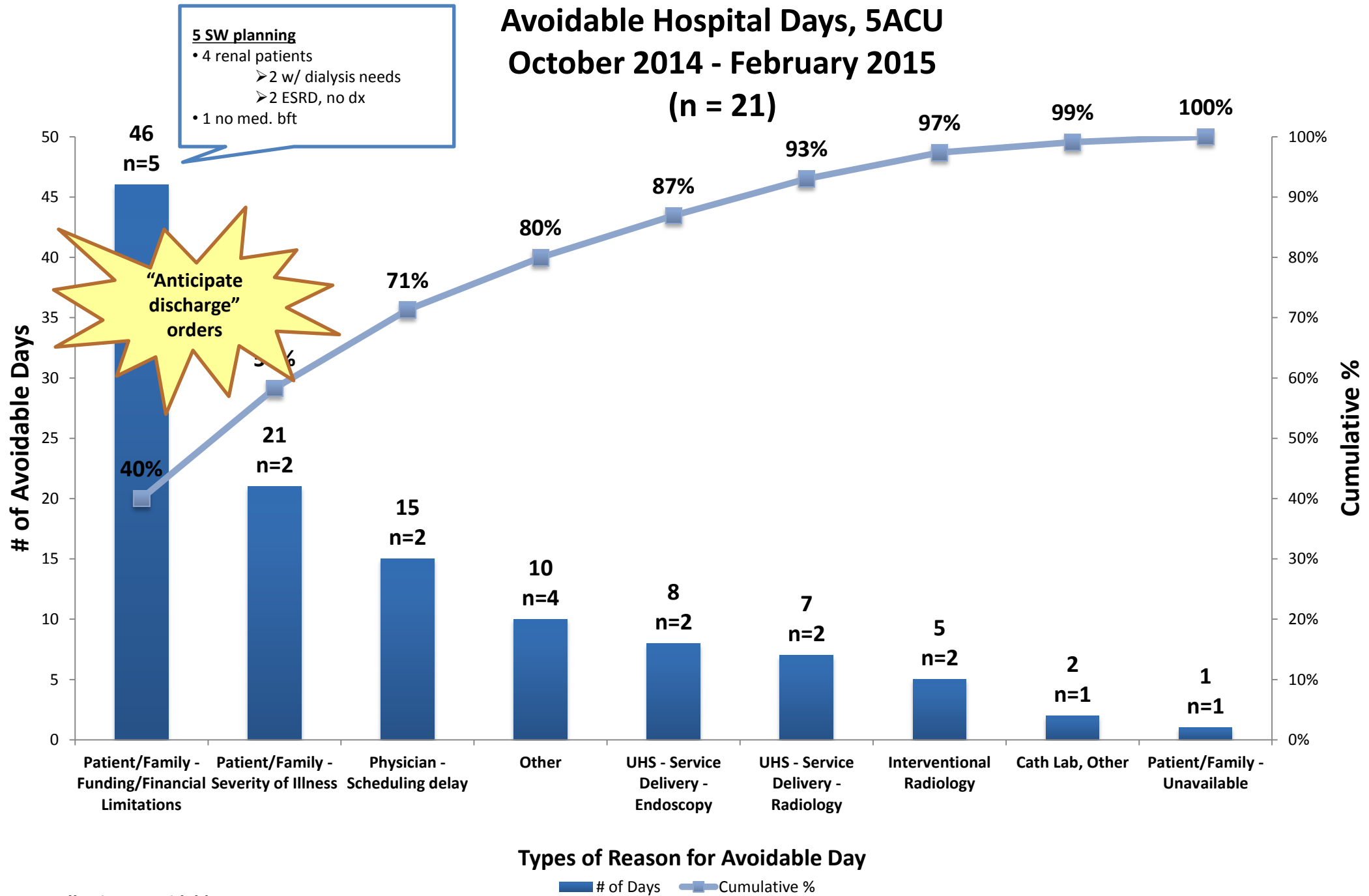
5ACU Patient Flow Process: Current State



5ACU Cause and Effect Analysis



Avoidable Hospital Days, 5ACU October 2014 - February 2015 (n = 21)



Action Plan

Action Strength	Action	Who	When	Status
Weak – additional study	Pre-survey	Kana/Mario	3/6	Complete
Weak → Strong – standardization of process through training	Education and Training House staff Nurses CC/SW	Kana Mario Jerry	3/2-3/15	Complete
Intermediate – software enhancement	Concurrent coding/UR	Mario	3/2-3/15	Complete
Strong – standardization	Anticipate Discharge orders-daily list	5ACU Charge Nurses	3/16	In progress
Strong – standardization	JBI MD RN CC/SW	Kana Mario Jerry	3/6-3/15	Complete
Strong – tangible involvement and actions	Discharge planning mtg- 2pm daily for pts for d/c in AM	5ACU Charge Nurses MD Team s CC/SW	3/16	In progress

CONTINUOUS QUALITY IMPROVEMENT

Advocate ADOs for all units

Track findings of QI efforts

Implement workplans to test quality improvement efforts

Staff in-services reflective of results (training/rotations)

Report findings to key stakeholders and project owners

Create and adjust workplans

Review results; consider areas of quality improvement

Create team and project aim

Develop timeline

Select target population and improvement targets

Review baseline data

Develop action plans

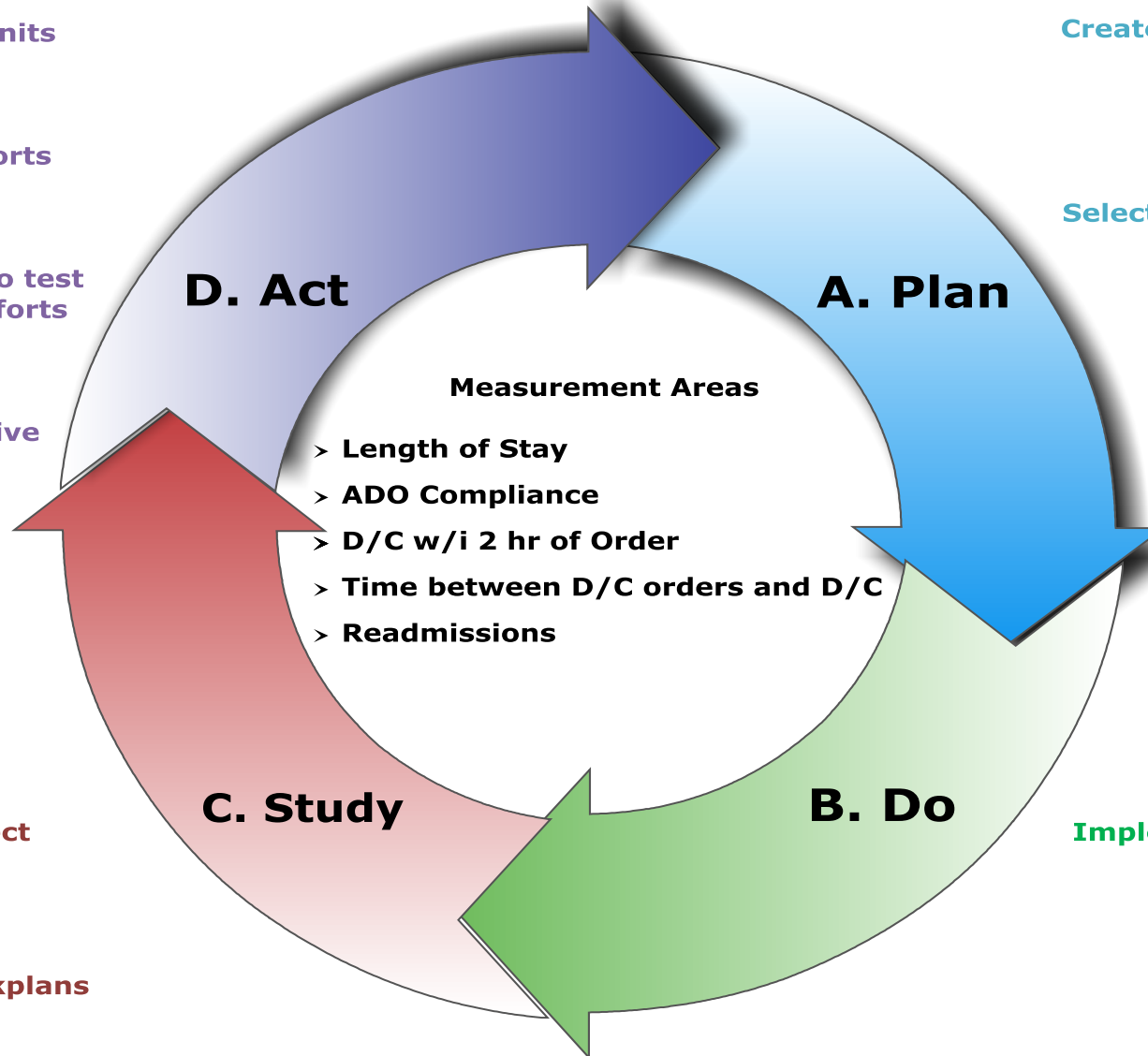
Provide education/training on ADOs

Define JBIs

Implement interdisciplinary d/c meetings

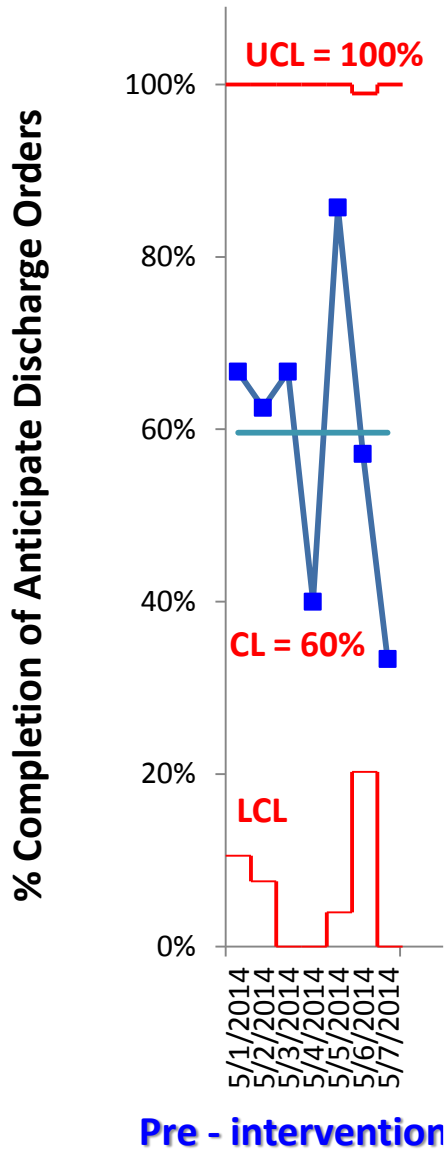
Collect data

Data review and analysis



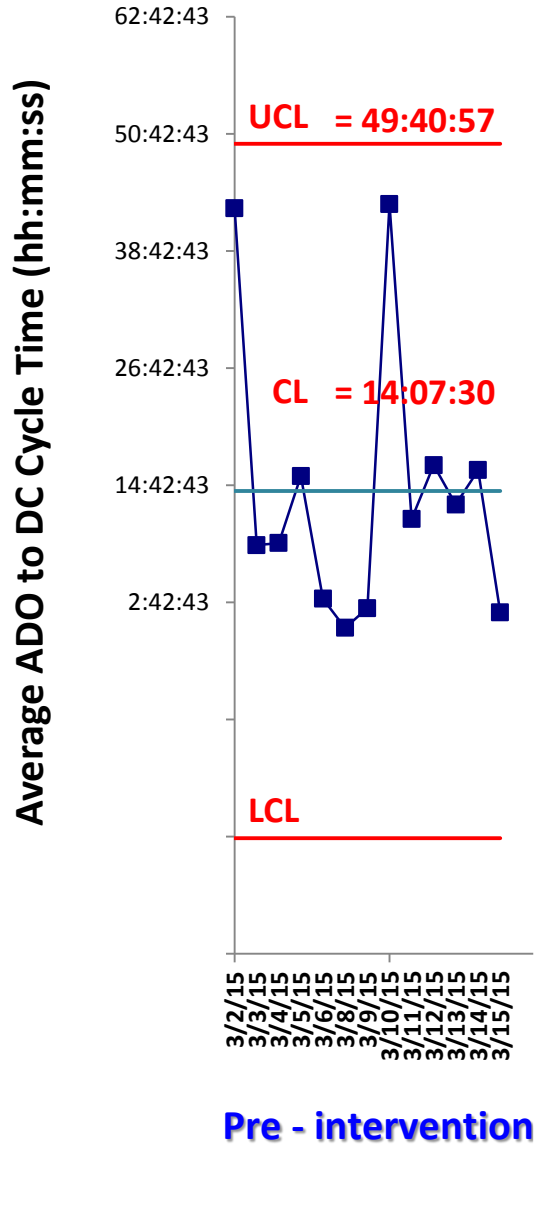
5ACU Anticipate Discharge Order Compliance

(Intervention: 3/16/15 - 5/17/15)



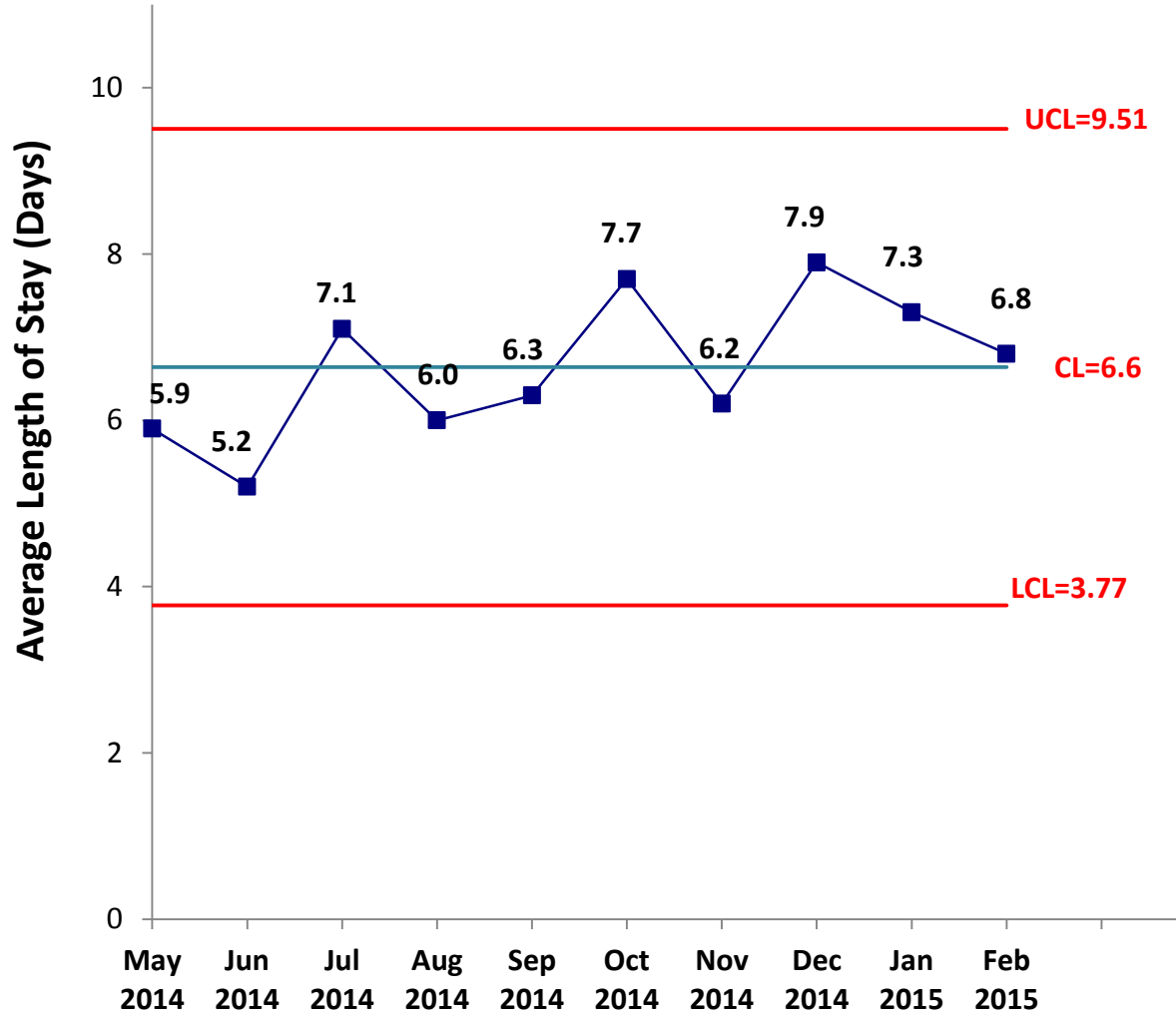
5ACU Anticipate Discharge Order to Discharge

(Intervention: 3/16/15 - 5/17/15)



5ACU Average Length of Stay:

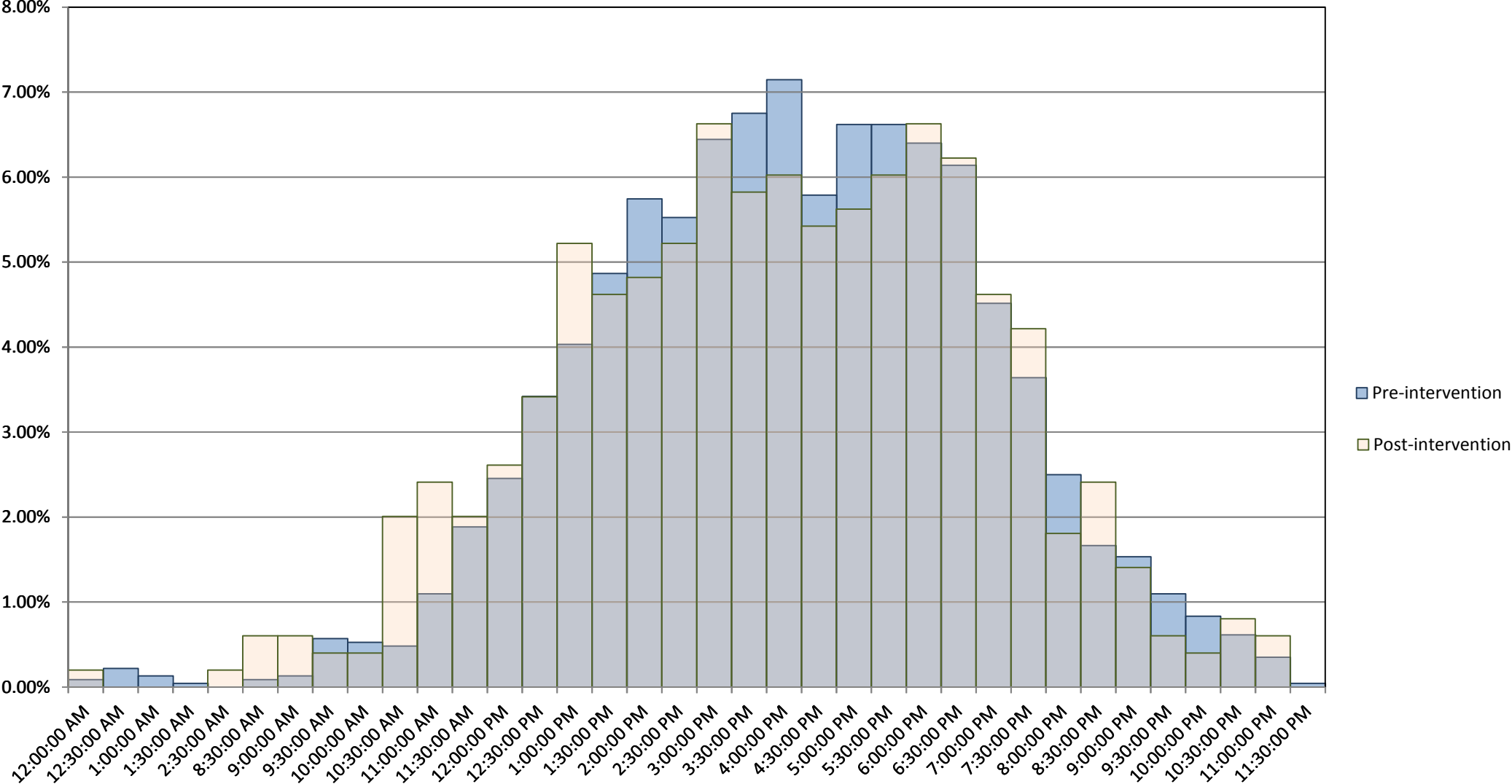
(Intervention: 3/16/15 - 5/17/15)



Pre - intervention

5ACU Total Discharges Histogram, 1/2 hr intervals

(Intervention: 3/16/15 - 5/17/15)



Sustaining the Results

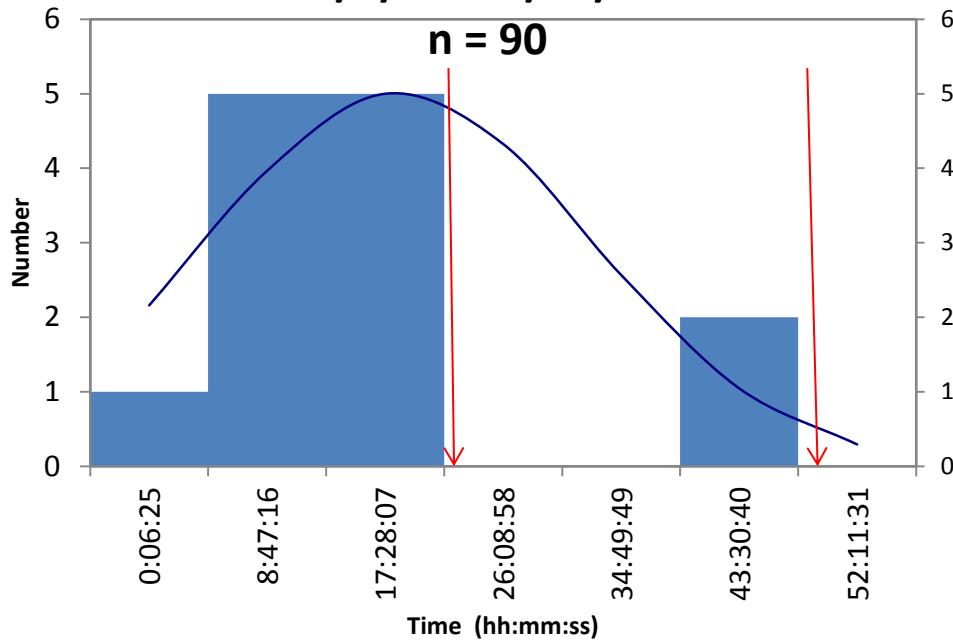
- Continued data analysis for periodic presentation to leadership and staff
- Staff training integrating results into continued rotations and training
- Advocate for all units to use ADOs



Soft Return on Investment

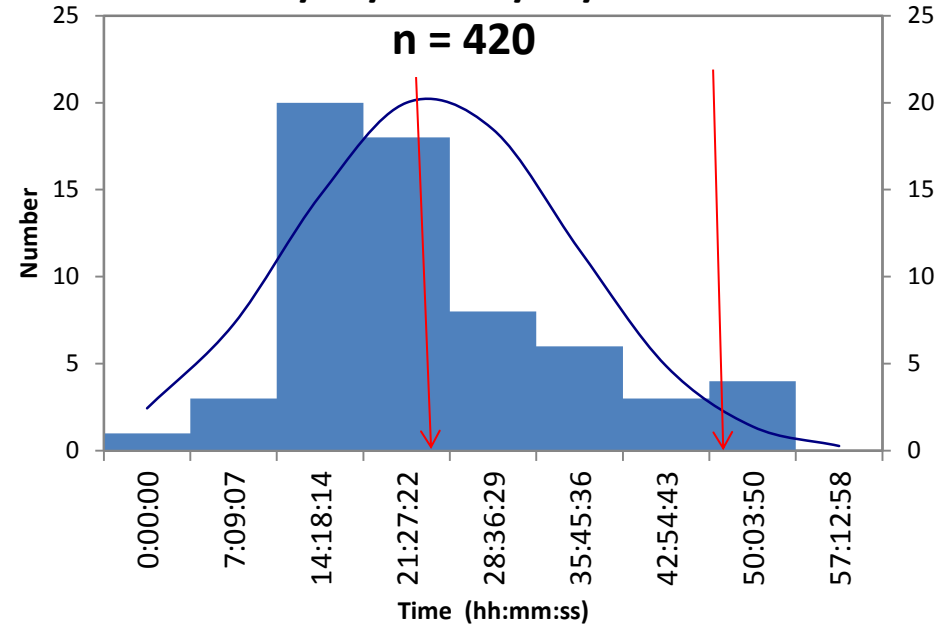
Pre-Capability Histogram ADO to DC

Order Cycle Time
3/2/15 -- 3/15/15



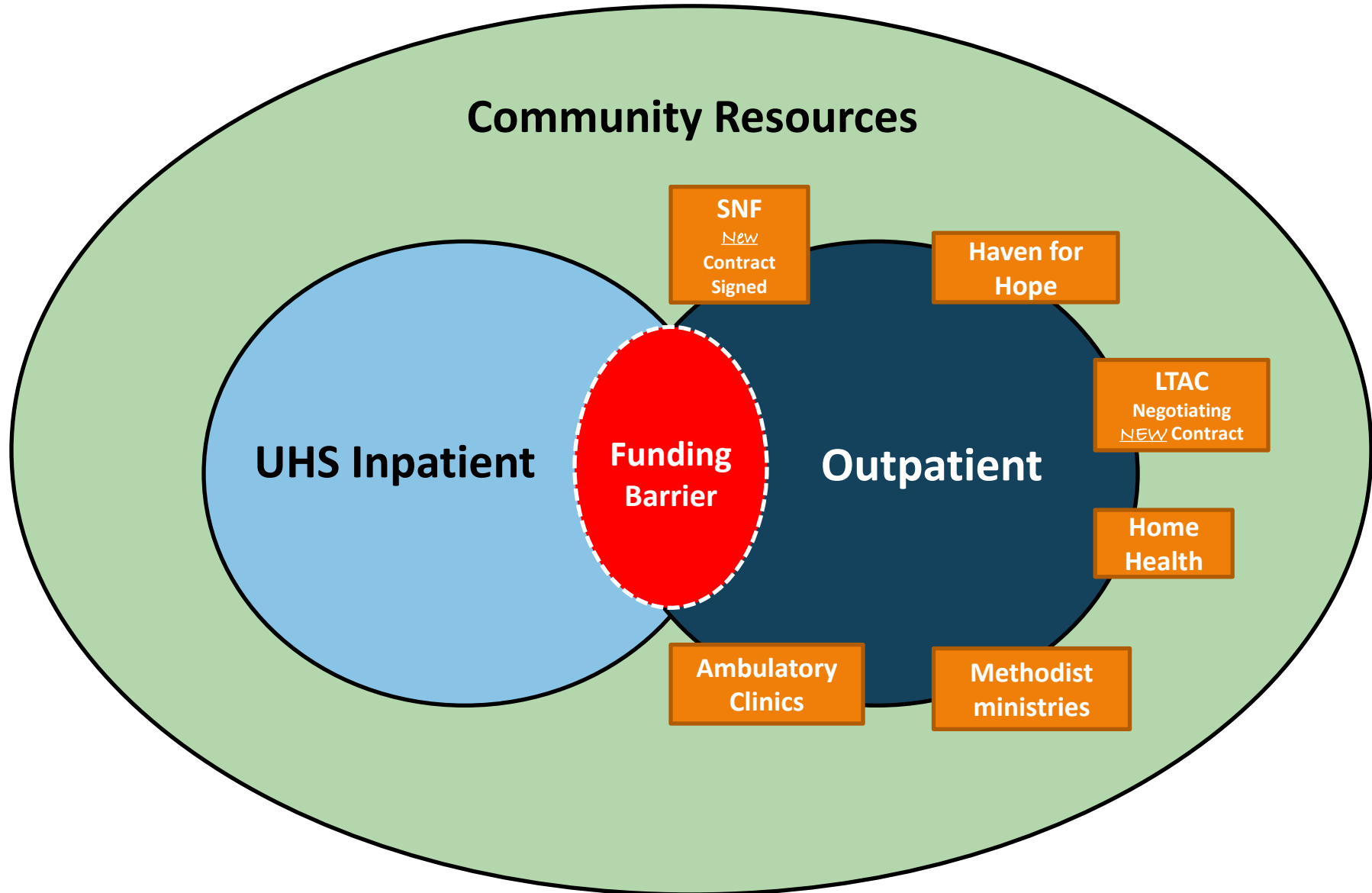
Post-Capability Histogram ADO to DC

Order Cycle Time
3/16/15 -- 5/17/15



Hard Return on Investment: net return through revenue enhancement via increased number of cases & payment per insurers and increased revenue from additional payer sources, & net return through cost savings via decrease LOS.

Conclusion: A Systems Approach to LOS





Team Pictures





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References

- <http://www.ncbi.nlm.nih.gov/pubmed/14609414>
- <http://ajcc.aacnjournals.org/content/15/5/502.short>
- <http://www.mc.vanderbilt.edu:8080/reporter/index.html?ID=3030>
- <http://dx.doi.org/10.7182/pit2013226>
- The effects of anticipatory discharge orders on length of hospital stay in staff pediatric patients Sumer T,Taylor DK,Mcdonald M;Mckinney V.,GillardM,.Grassel K.,KpalnW.,KherehllahN. *AJM QUAL* 1997 Spring:121 (1) 48-50
- 2015 Vanderbilt University Medical Center, VUH to Improve patient discharge; Paul McGovern 2015