Improving the Hospital Transition Process:

Optimizing Medication Reconciliation & Hospital Follow-Up

PDW / RPS March 28, 2017

John F. Kreckman MD CPE

Director SIUCFM-S Hospital / CMO SIUCFM-S

4FM Residency:

- Springfield
- Quincy
- Decatur
- Carbondale

FQHC:

•Lincoln

•Jacksonville

- **8 Hospitals:**
- Memorial Spfd
- St Johns Spfd
- Memorial T-ville
- Memorial Lincoln
- Blessing Quincy
- Passavant J-ville
- Memorial Dct

EHR Platforms:

Touchworks (4 platforms do not interface)

Epic (2 platforms do not interface)

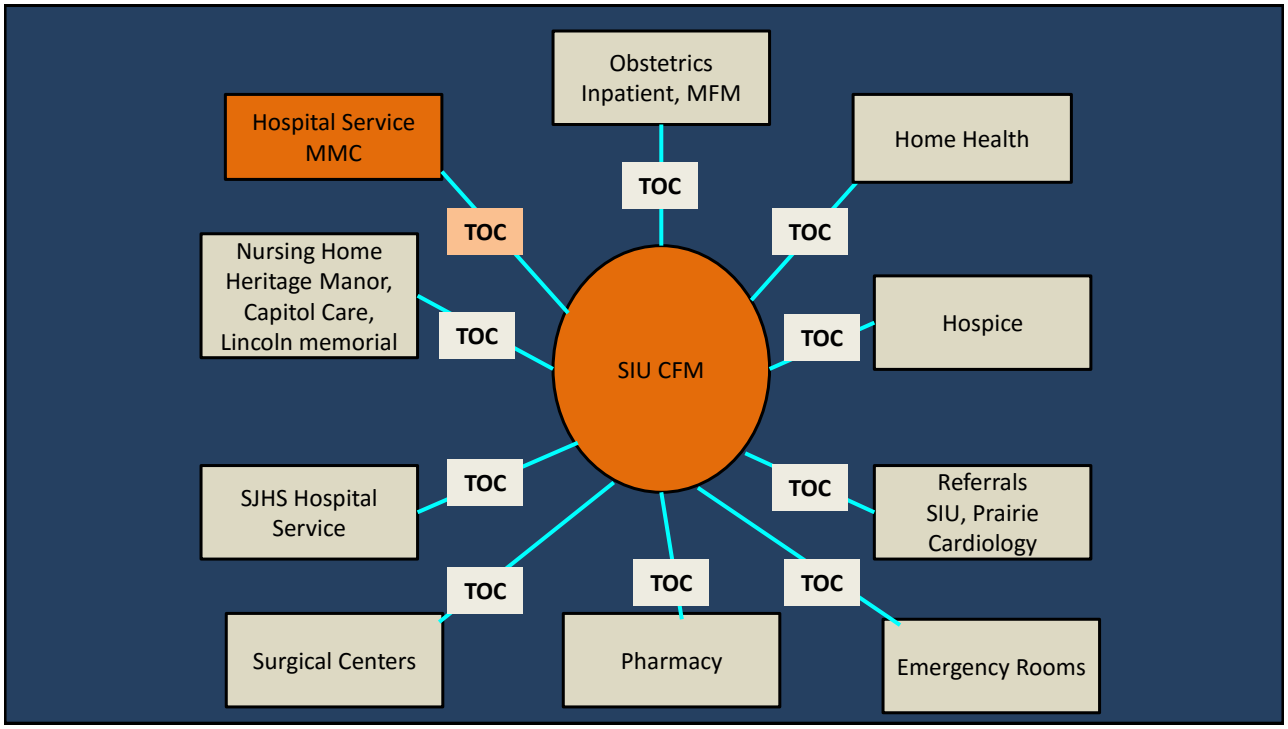
PowerChart

Meditech

NextGen

McKesson

Centricity



First Step when your System does not meet Process requirements ????

A Work Around

If it Continues to Fail ????

For Most of Us

Process Management Consists of:

- **Workarounds**
- **Finger Pointing**

Take Home #1:

Can't Fix it if you Don't Know about it.

"In God We Trust.

Everyone else bring your data"

David Nash MD TJU

Take Home #2:

"A Bad Process Will Defeat a Good Person Every Time"

W.E. Deming

Pareto Principle 80/20

80% of errors lie with the process

20% lie with the individual

Take Home #3:

The Importance of Process

In Order to be an Effective Process:

Defined

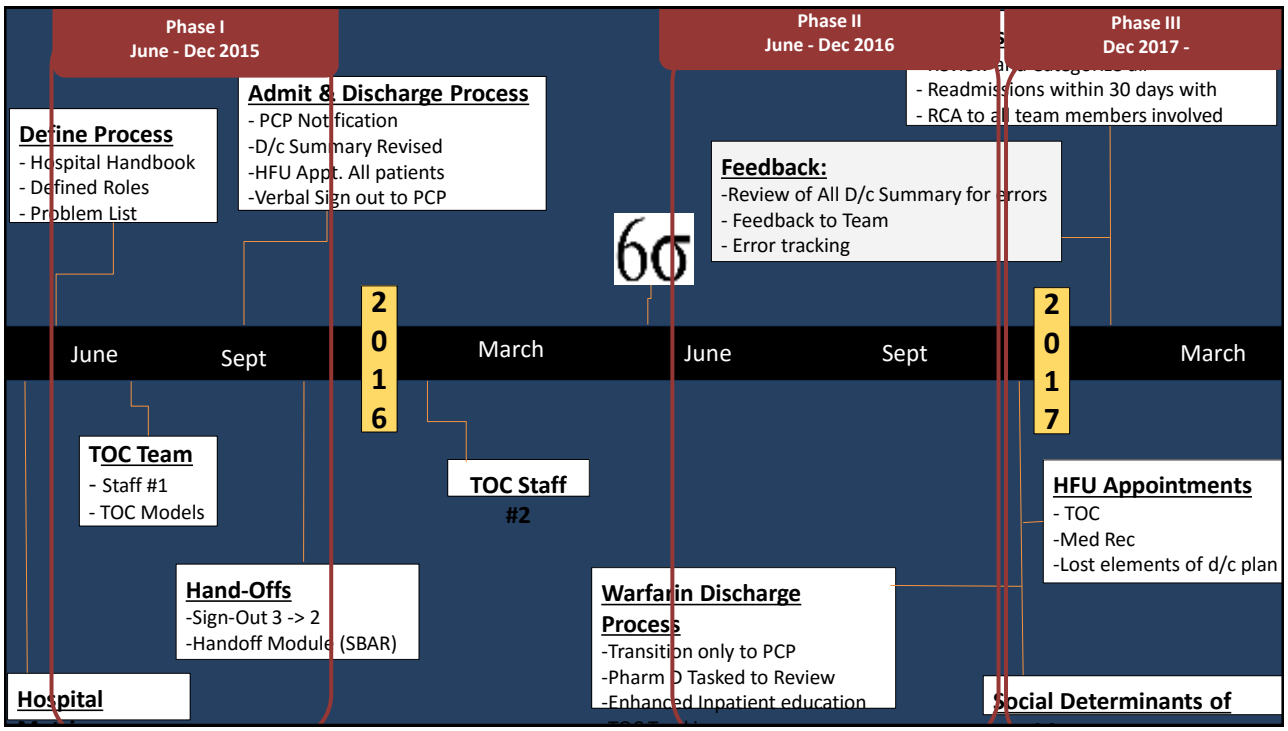
Ownership

Feedback

Controlled

- measure
- 80/20
-process

AMERICAN ACADEMY OF FAMILY PHYSICIANS



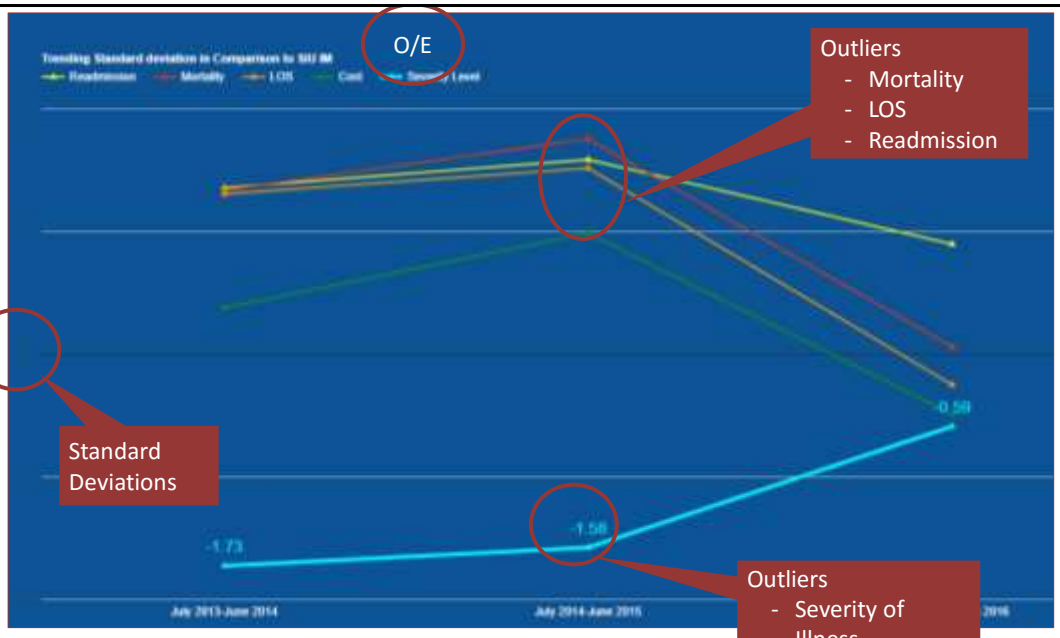
TOC Project
Where to Start?

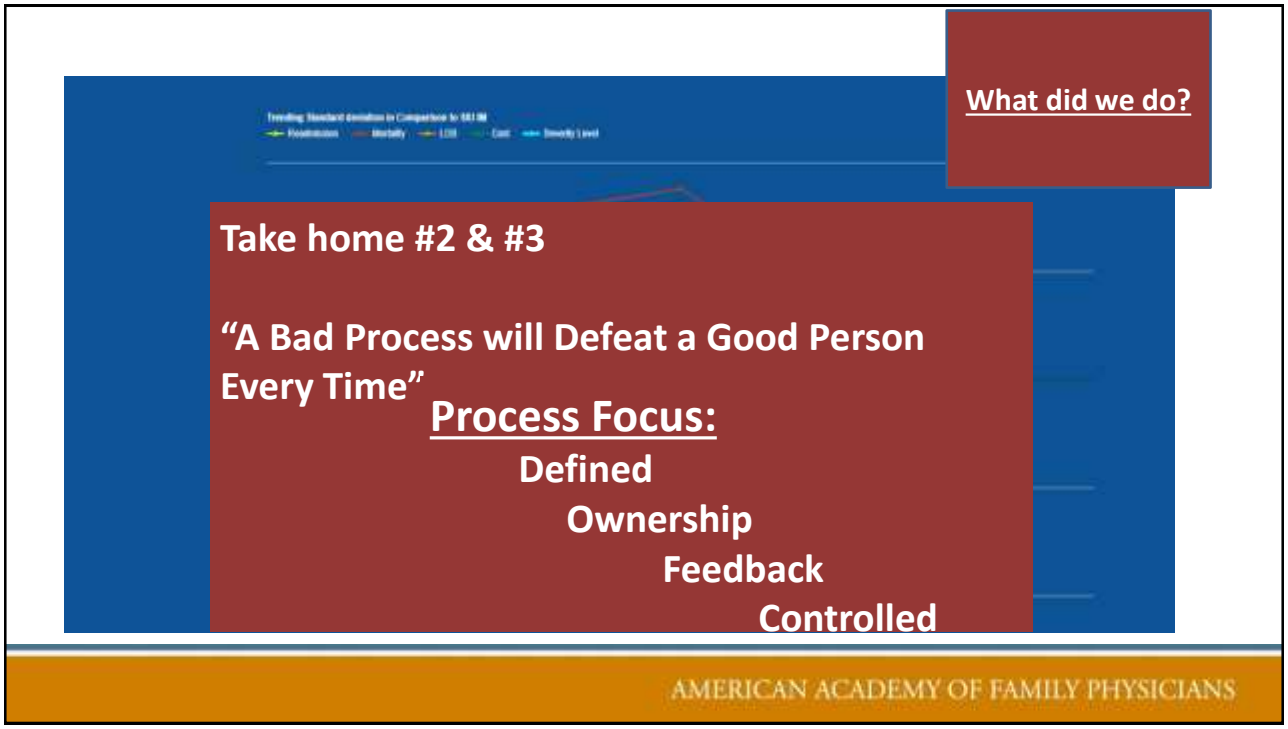
Take Home #1

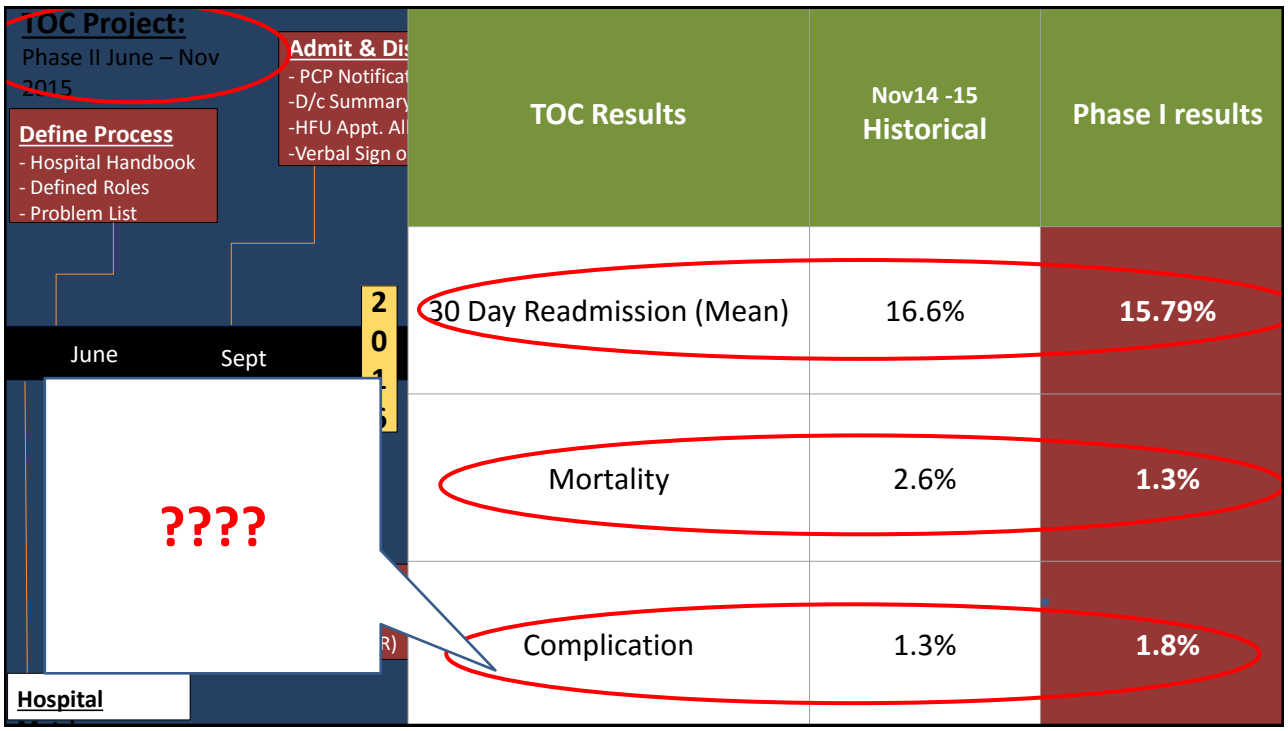
Can't Fix it if you Don't Know about it.

June | Sept | 2016 | March | June | Sept | 2017 | March

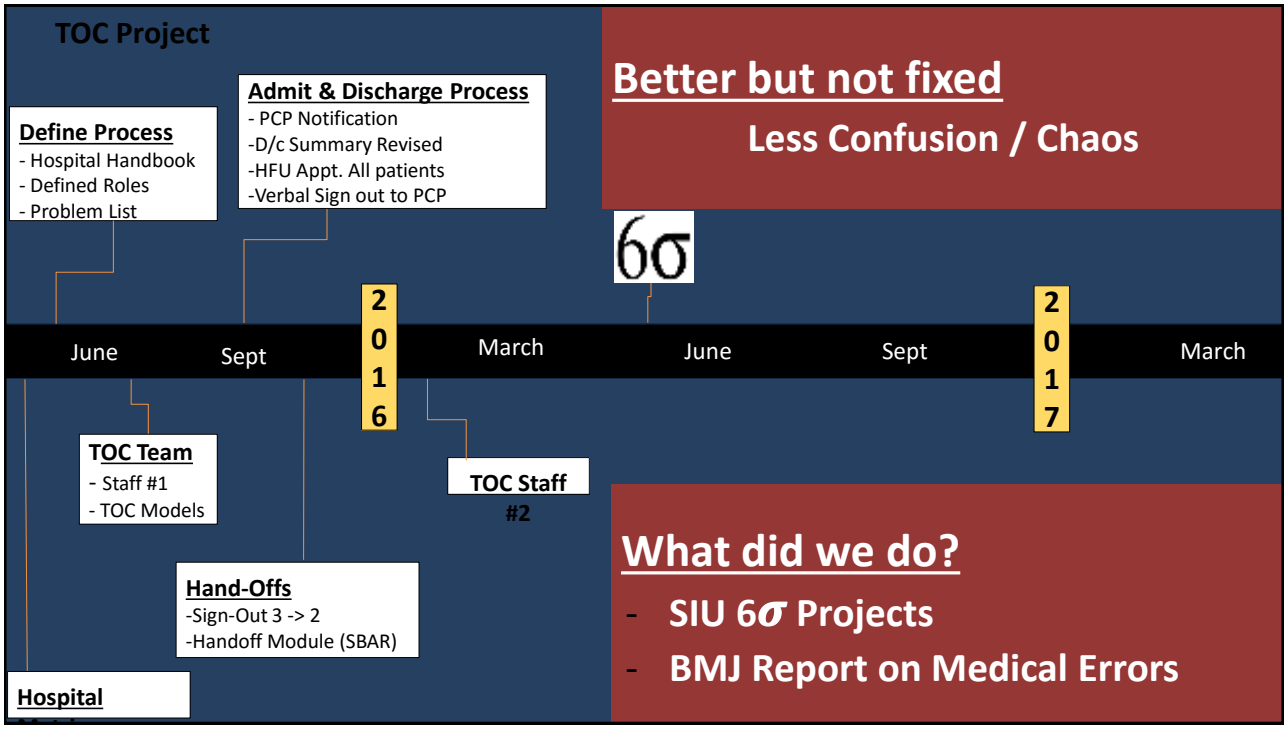
Hospital Metrics







TOC Results	Nov14 -15 Historical	Phase I results
30 Day Readmission (Mean)	16.6%	**15.79%**
Mortality	2.6%	**1.3%**
Complication	1.3%	**1.8%**



thebmj

BMJ 2016;353:i2139 doi: 10.1136/bmj.i2139 (Published 3 May 2016)

- **250,000** deaths per year
- **$1.2 Trillion** of QAYL

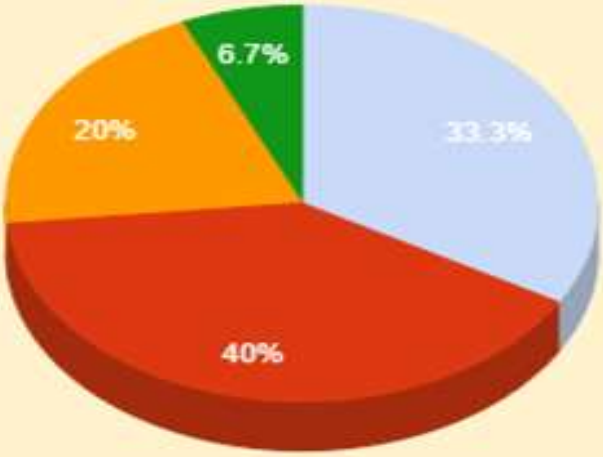
med rec --> Med error --> #1 Med injury --> #3 death

700 deaths a day — almost 10 % of all deaths in the US

"Medication Safety was the #1 Problem"

J Health Care Finance. 2012 Fall;39(1):39-50. *The economics of health care quality and medical errors*

66% of Medication Lists had at least 1 Error HFU
46% had Multiple Errors
--> 6σ



66% Error Rate

Baseline DPMO: 666,667

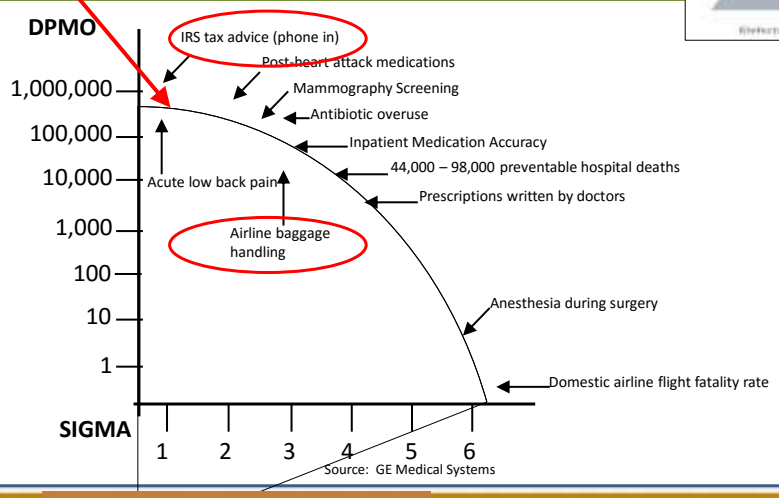
Z score of 1.1

What does that Mean?

66% Error Rate

Baseline DPMO: 666,667

Z score of 1.1



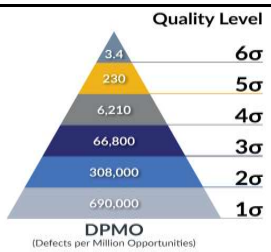
Cost of a medication error was $88.57

Pharmacotherapy. 2014;34(4):350-7. doi: 10.1002/phar.1370. Epub 2013 Nov 11

66% Error Rate

Baseline DPMO: 666,667

Z score of 1.1



Define → MEASURE → ANALYZE → IMPROVE → CONTROL

Admission

MMC 2 step Verification
- Entered into PC

Resident Verification
- Signs off
- Admit Med Rec Complete

77% at Least one Error
34% of Meds Wrong

Hospitalization & Discharge

Rx Added/Removed/Changed

Discharge Reconciliation in PC

Discharge Reconciliation to TW

PCP tasked to Review Reconciled TW Rx

Verbal sign out to follc

74% at Least c
22% of Meds

Hospital Follow up

Clinic Nurse
- Verifies Rx list with Patient

Clinic Nurse
- Reconciles TW with
  - D/c Summary
  - Patients Rx List

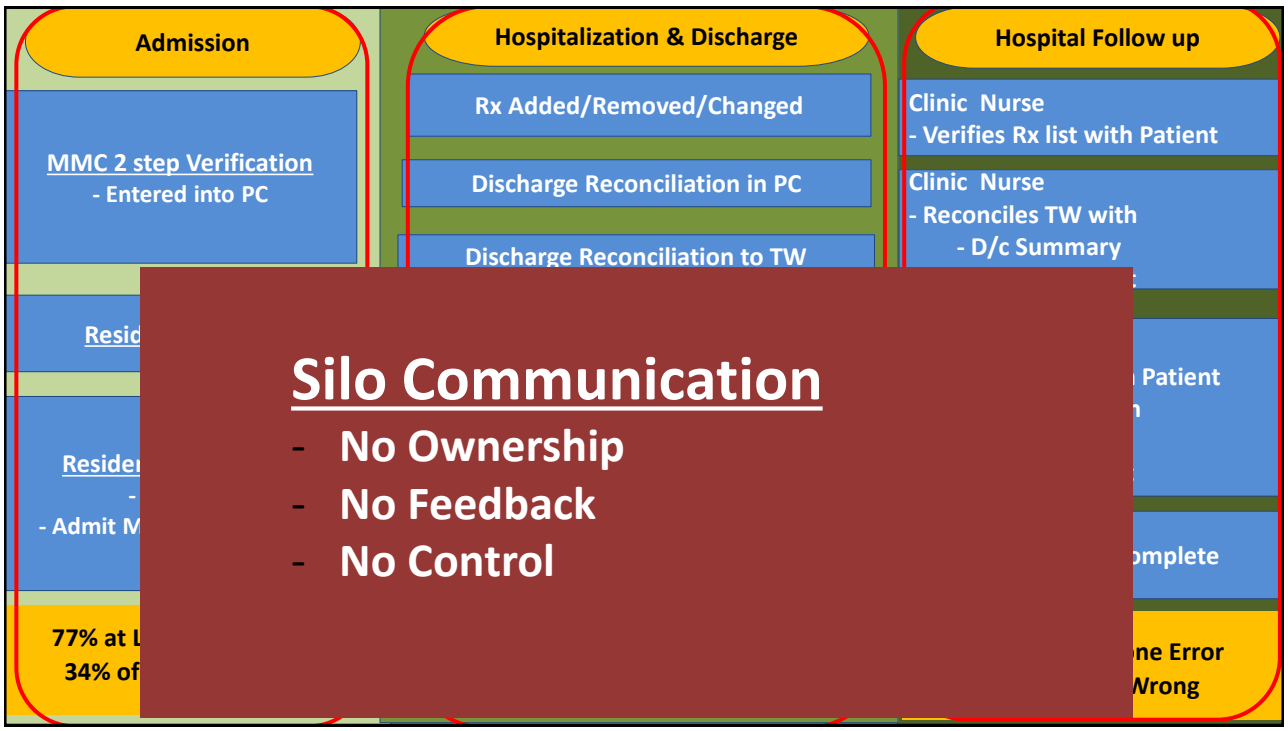
- D/c Summary
- Patients Rx List

Define & Measure

Most Common Steps Of Process Management?

80/20 rule:

"A Bad Process will Defeat a Good Person Every Time"



Hypothesis:

Improving the Admission Reconciliation will Improve:

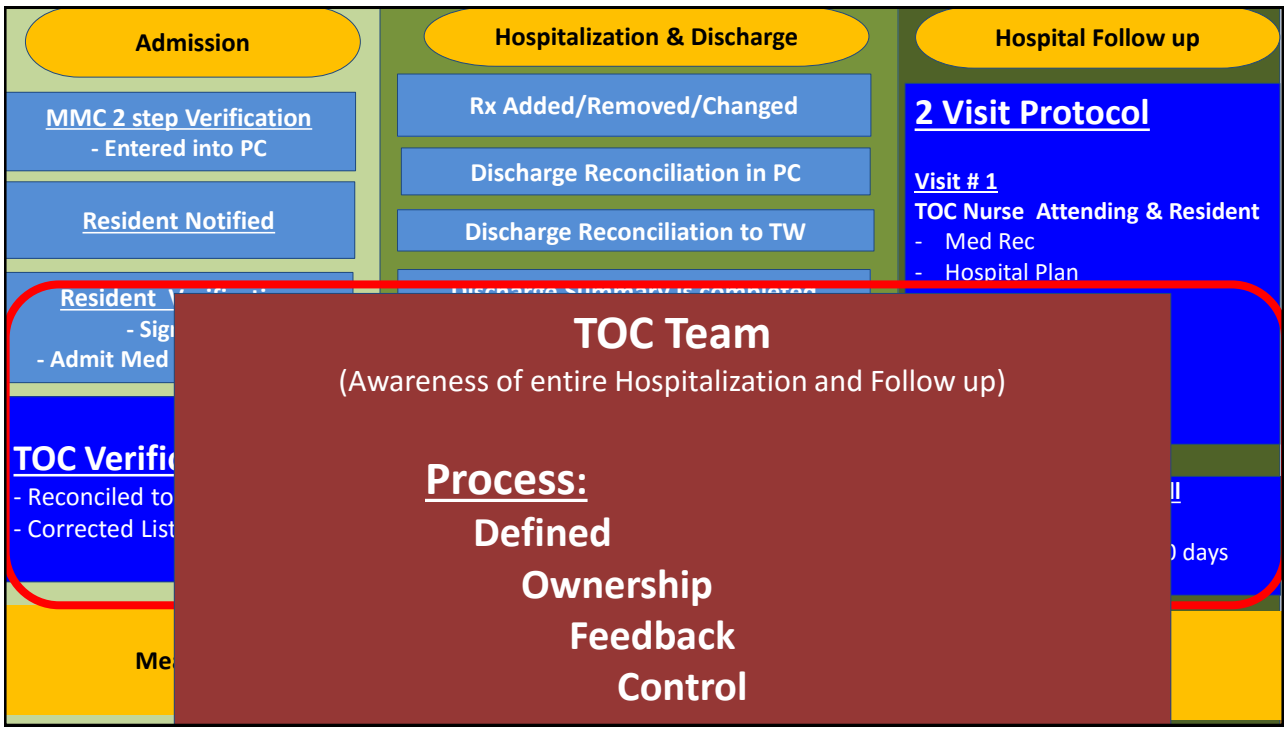
- The Discharge Reconciliation

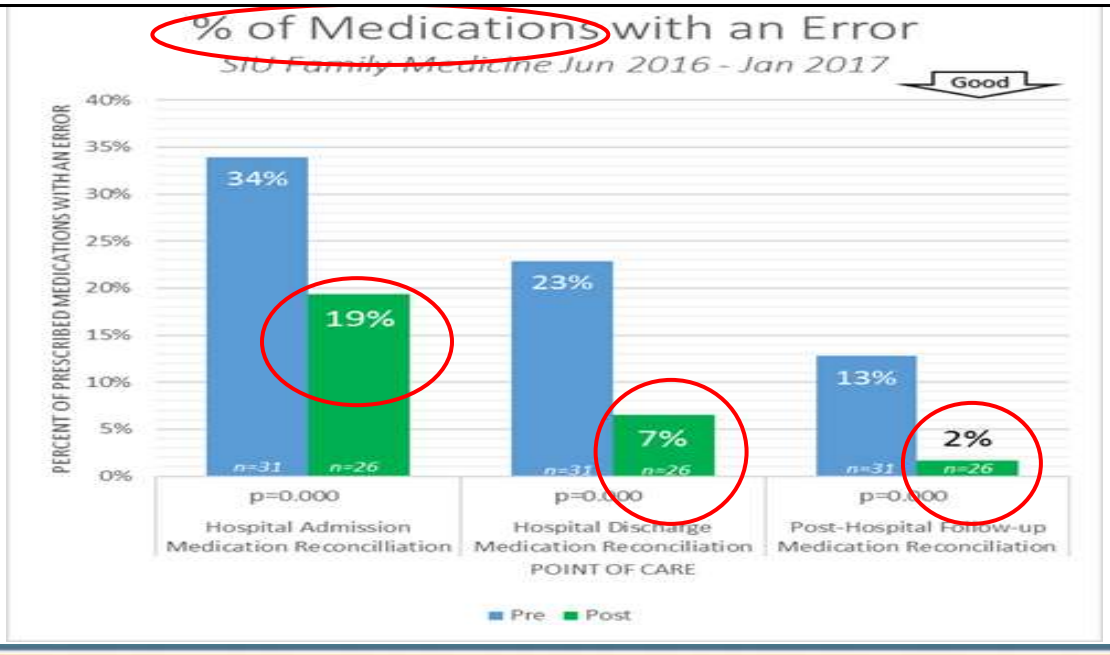
Improving the Discharge Reconciliation will Improve:

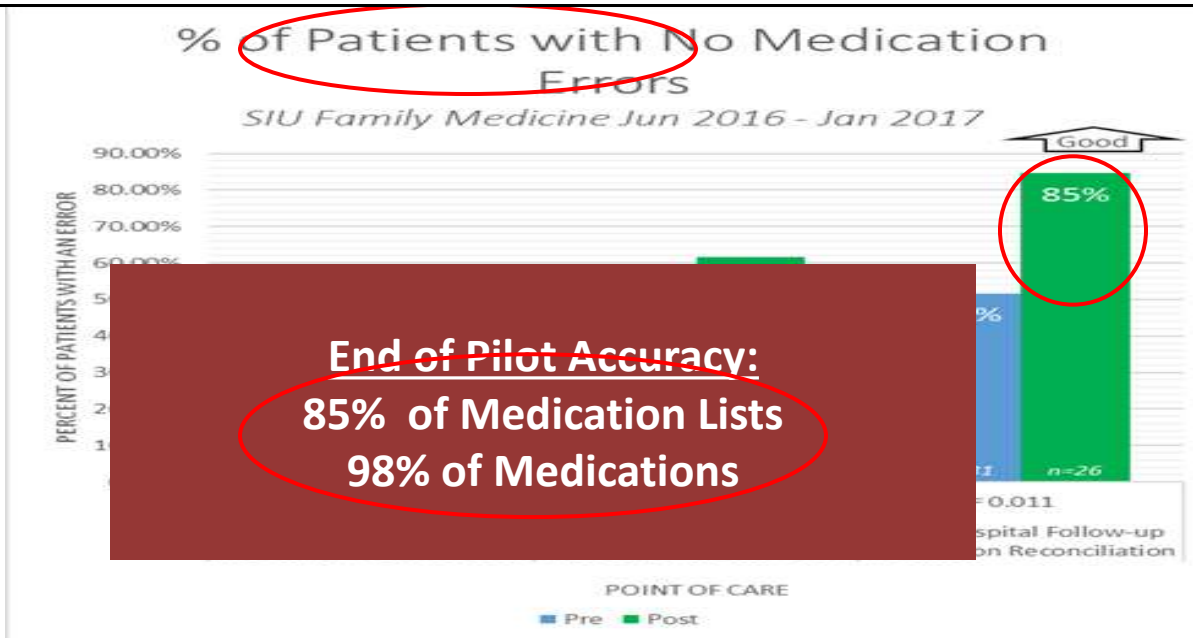
- The Hospital Follow Up Reconciliation

How Can We Redefine our Process?

- **Ownership**
  - **Feedback**
    - **Control**







End of Pilot Accuracy:

85% of Medication Lists

98% of Medications

66% Error Rate

Baseline DPMO: 666,667

Z score of 1.1

15% Error Rate

Baseline DPMO: 153,646

Z score of 2.5

TOC Project:
Phase II June – Nov 2016

Define Process
- Hospital Handbook
- Defined Roles
- Problem List

Admit & Discharge
- PCP Notification
-D/c Summary Revised
-HFU Appt. All patients
-Verbal Sign out to PCP

June Sept 2016

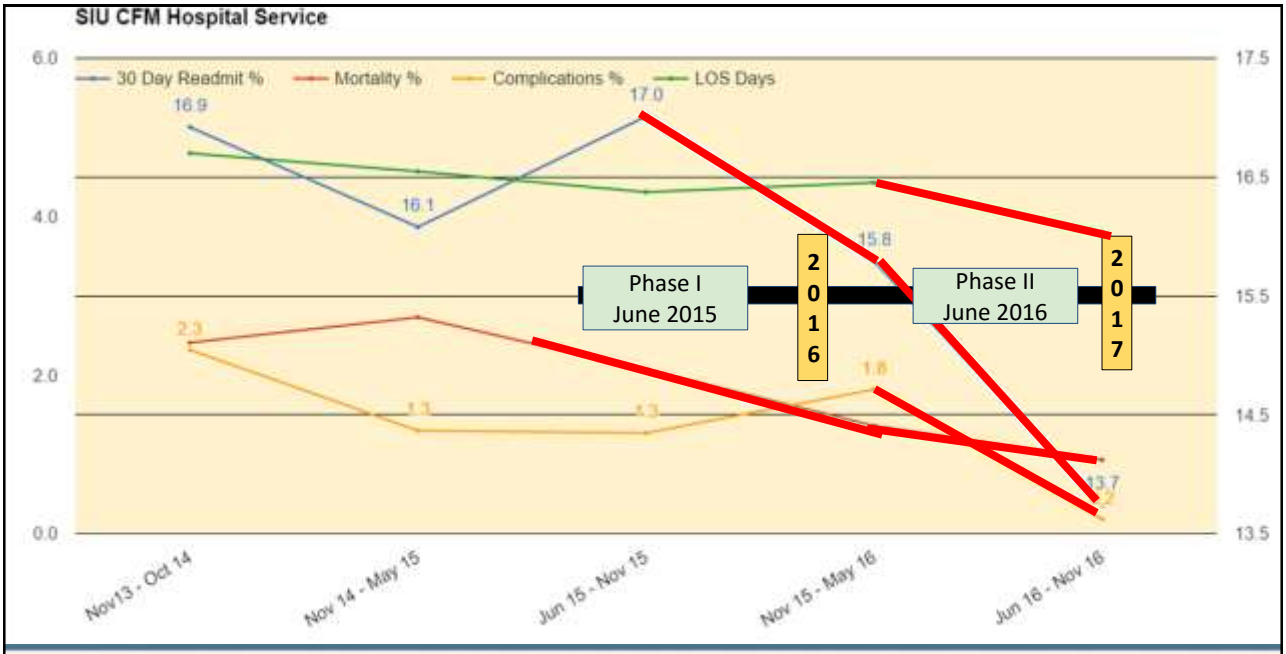
TOC Team
- Staff #1
- TOC Models

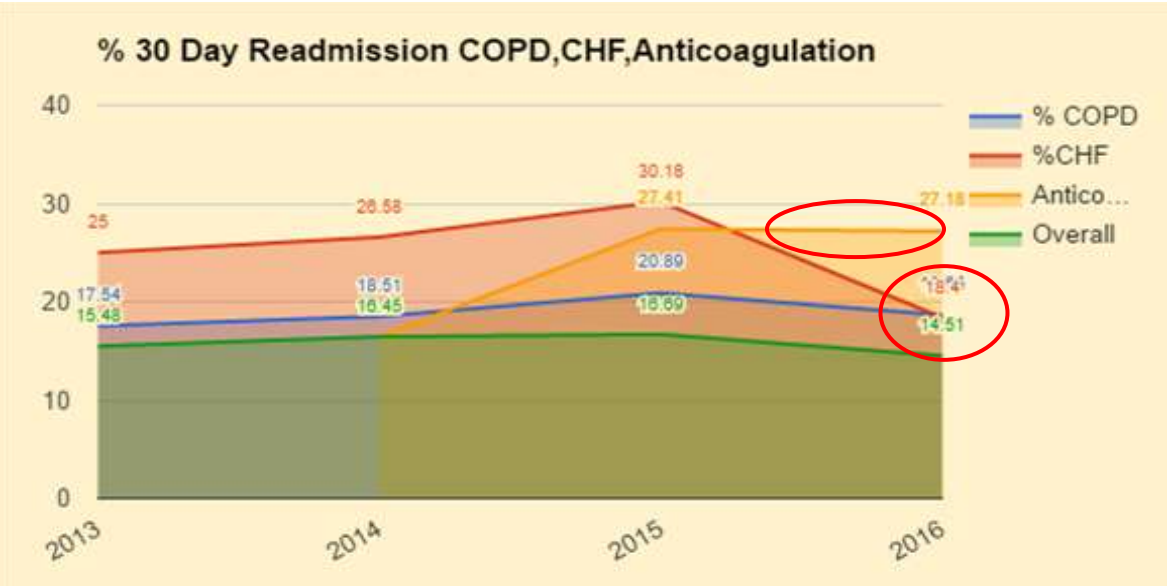
Hand-Offs
-Sign-Out 3 -> 2
-Handoff Module (SBAR)

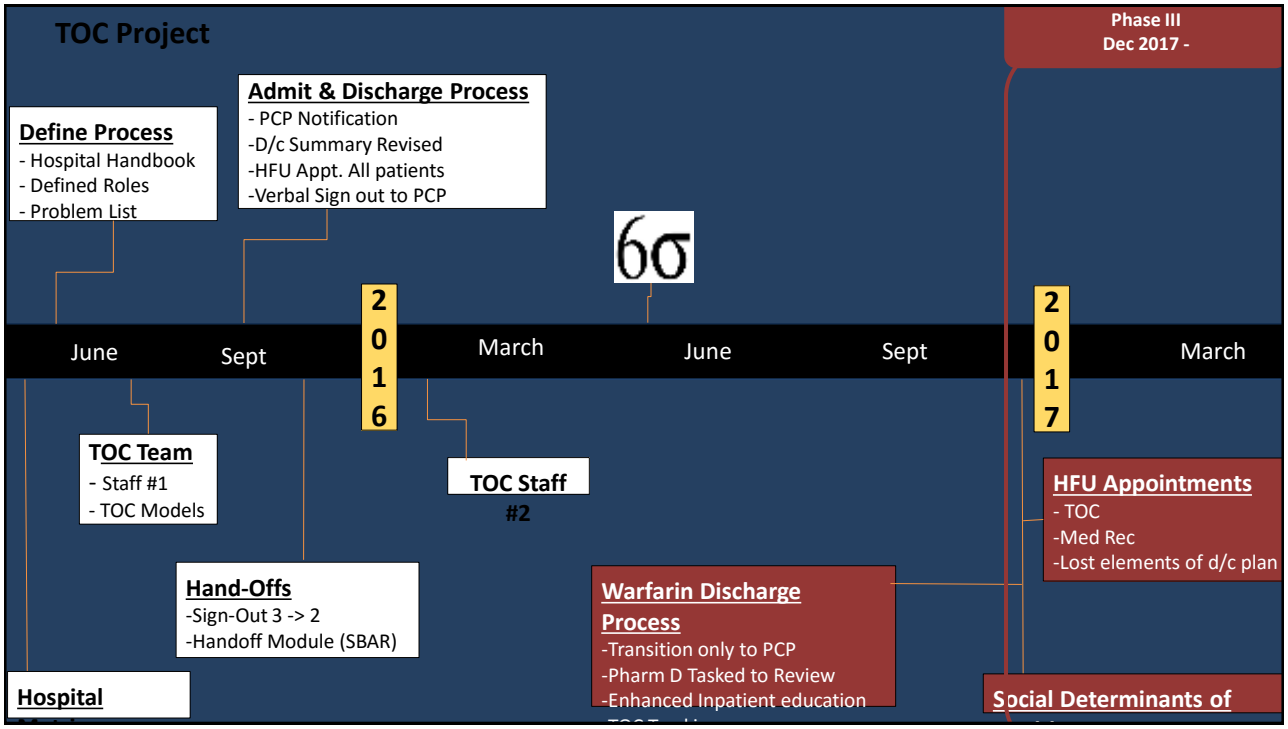
Hospital

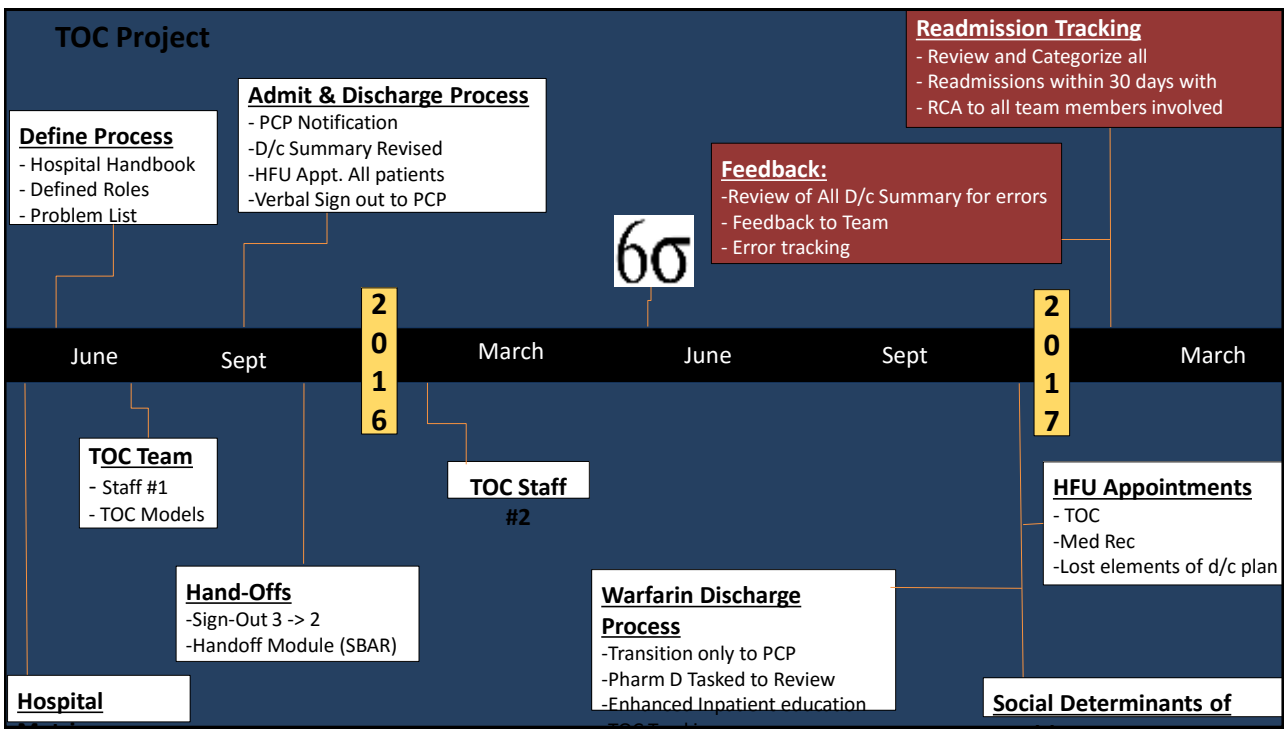
TOC Results	Nov14 -15 Historical	Nov15 - May 16 Phase I results	Phase II results
30 Day Readmission	16.6%	15.79%	**13.74%**
		.3%	**0.93%**
Complication	1.3%	1.8%	**0.18%**

1 complication 530 patients


SIU CFM Hospital Service
30 Day Readmit %
Mortality %
Complications %
LOS Days
6.0
4.0
2.0
0.0
17.5
16.5
15.5
14.5
13.5
16.9
16.1
17.0
15.8
2.3
1.3
1.3
1.8
13.7
Phase I
June 2015
2016
Phase II
June 2016
2017
Nov13 - Oct 14
Nov 14 - May 15
Jun 15 - Nov 15
Nov 15 - May 16
Jun 16 - Nov 16


% 30 Day Readmission COPD,CHF,Anticoagulation
40
30
20
10
0
% COPD
%CHF
Antico...
Overall
25
26.58
30.18
27.41
27.18
17.54
15.48
18.51
16.45
20.89
18.69
18.41
14.51
2013
2014
2015
2016


TOC Project
Phase III
Dec 2017 -
Define Process
- Hospital Handbook
- Defined Roles
- Problem List
Admit & Discharge Process
- PCP Notification
-D/c Summary Revised
-HFU Appt. All patients
-Verbal Sign out to PCP
6σ
June
Sept
2016
March
June
Sept
2017
March
TOC Team
- Staff #1
- TOC Models
TOC Staff #2
HFU Appointments
- TOC
-Med Rec
-Lost elements of d/c plan
Hand-Offs
-Sign-Out 3 -> 2
-Handoff Module (SBAR)
Warfarin Discharge Process
-Transition only to PCP
-Pharm D Tasked to Review
-Enhanced Inpatient education
Hospital
Social Determinants of


TOC Project
Readmission Tracking
- Review and Categorize all
- Readmissions within 30 days with
- RCA to all team members involved
Define Process
- Hospital Handbook
- Defined Roles
- Problem List
Admit & Discharge Process
- PCP Notification
-D/c Summary Revised
-HFU Appt. All patients
-Verbal Sign out to PCP
Feedback:
-Review of All D/c Summary for errors
- Feedback to Team
- Error tracking
6σ
June
Sept
2016
March
June
Sept
2017
March
TOC Team
- Staff #1
- TOC Models
TOC Staff #2
HFU Appointments
- TOC
-Med Rec
-Lost elements of d/c plan
Hand-Offs
-Sign-Out 3 -> 2
-Handoff Module (SBAR)
Warfarin Discharge Process
-Transition only to PCP
-Pharm D Tasked to Review
-Enhanced Inpatient education
Hospital
Social Determinants of

Focus on Process:

Defined

Ownership

Feedback

Controlled

80% Process 20% Individual

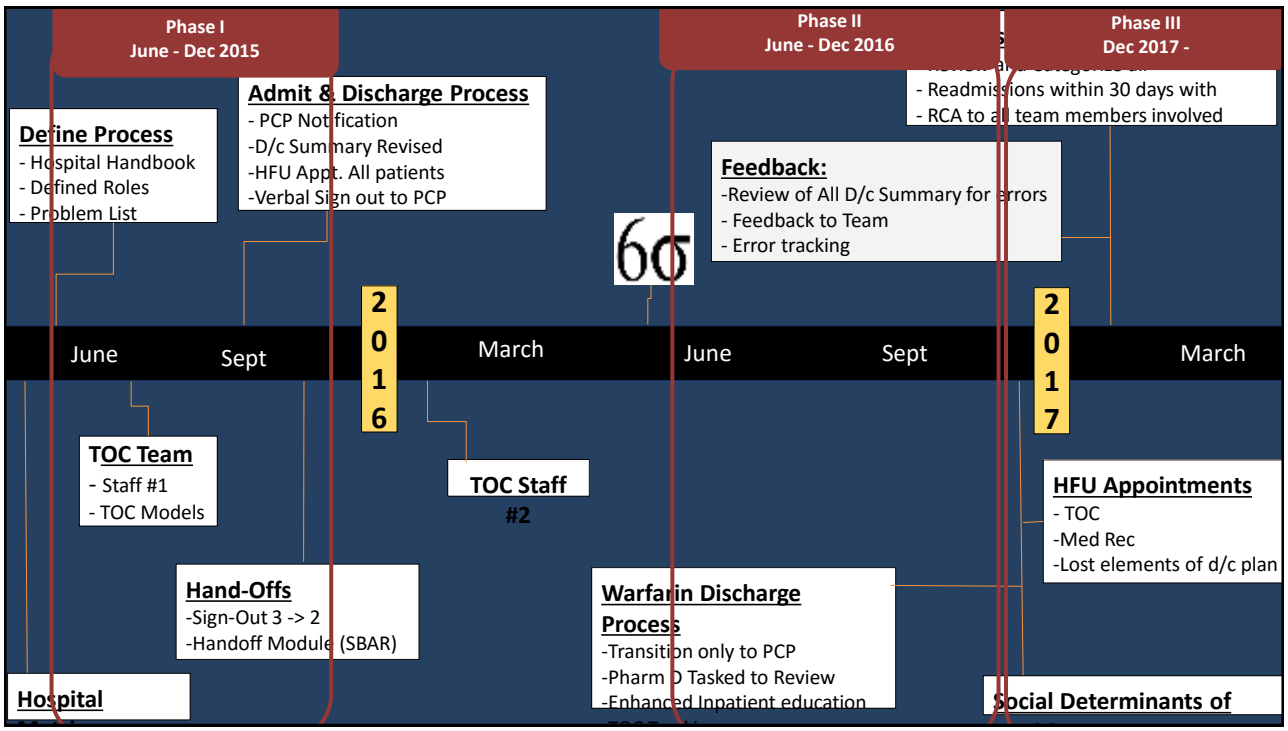
"A Bad Process will Defeat a Good Person Every Time"

You have to Measure it to Fix it.

'In God We Trust'

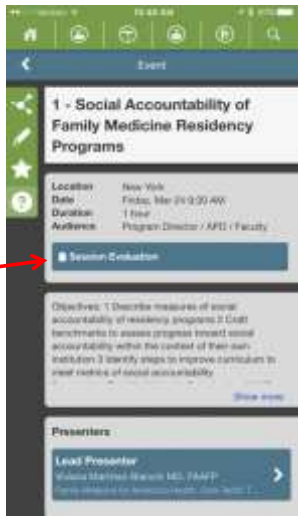
Everyone Else Bring Your Data

AMERICAN ACADEMY OF FAMILY PHYSICIANS



Please…

Complete the session evaluation.



Thank you.

AMERICAN ACADEMY OF FAMILY PHYSICIANS

STRONG MEDICINE FOR AMERICA