

INTRODUCTION TO QUALITY IMPROVEMENT

Kevin Smith, MD

Vice Chair for Quality and Safety, Department
of Medicine

Objectives

- Define the aspects of quality health care
- Describe different quality improvement tools
- Demonstrate the processes of a DMAIC cycle
- Identify the advantages of using a process map
- Define types of quality metrics

- *America's health care system is neither healthy, caring, nor a system*

- Walter Cronkite

- *One of three American healthcare dollars is wasted and for the past decade, all wage increases have been absorbed by healthcare costs.*

- Don Berwick

- *Seeing modern health care from the other side, I can say that it is clearly not set up for the patient. It is frequently a poor arrangement for doctors as well, but that does not mitigate how little the system accounts for the patient's best interest. Just when you are at your weakest and least able to make all the phone calls, traverse the maze of insurance, and plead for health-care referrals is the one time when you have to. Your life may depend on it.*

Ross I. Donaldson

The Lassa Ward: One Man's Fight Against One of the
World's Deadliest Diseases

Question #1

- How would you rate the quality of care at Loyola?
 - A. Superior
 - B. Very good
 - C. Average
 - D. Poor

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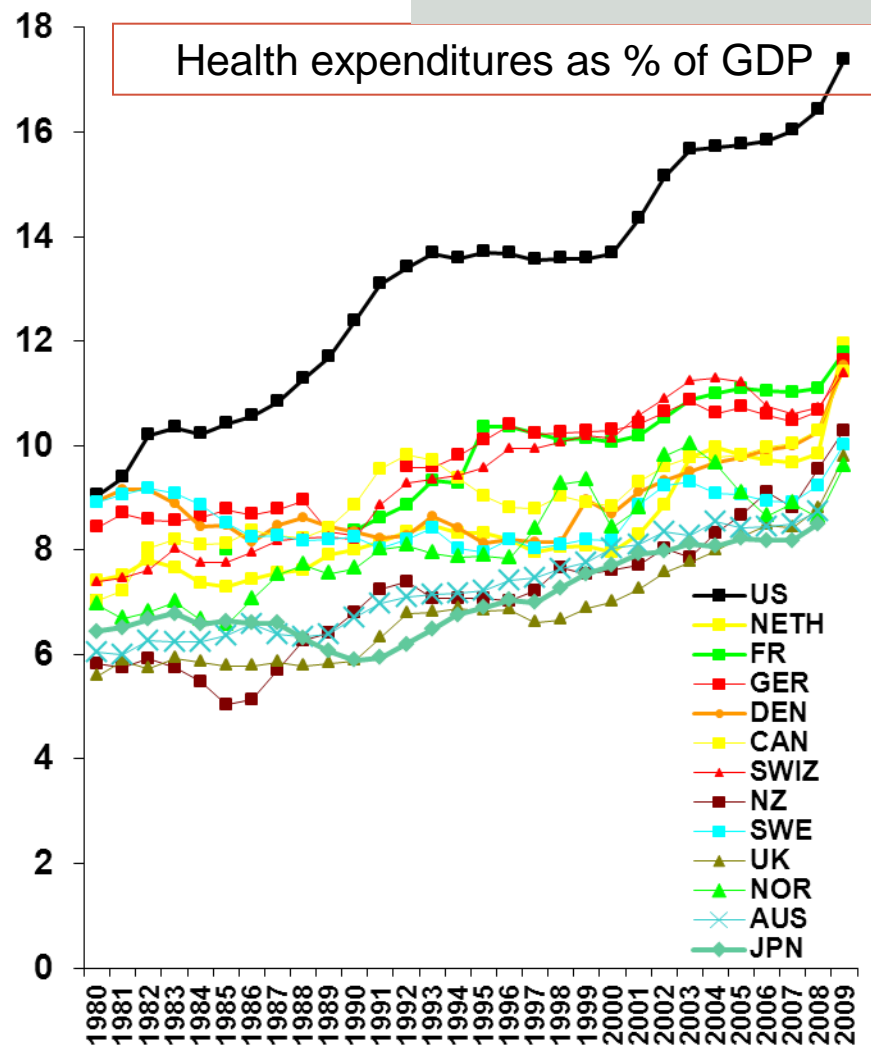
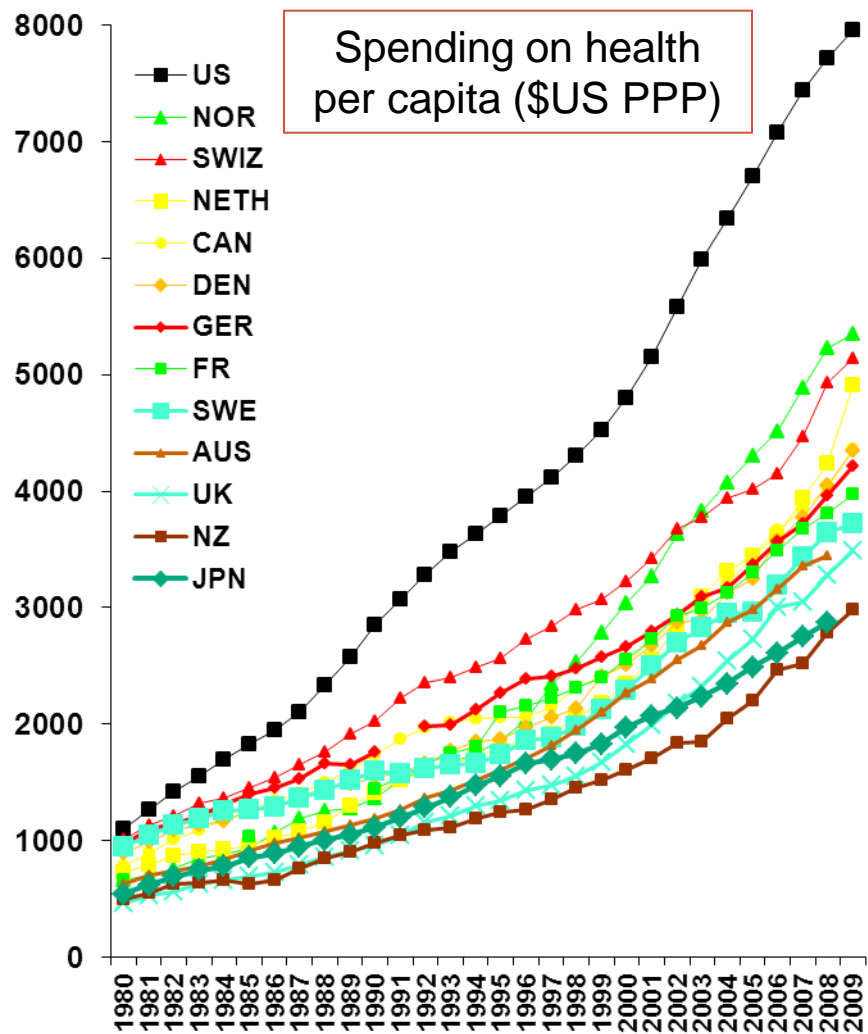
I'm not sure

How can we judge?

Numerous Studies Conclude that Health Care is Not Safe

- 1/3 of hospitalized patients experienced an adverse event
- 1,000,000 injuries
- 44,000- 98,000 deaths due to medical error
- 7th leading cause of death in the U.S.
- \$50 (or more) billion in costs

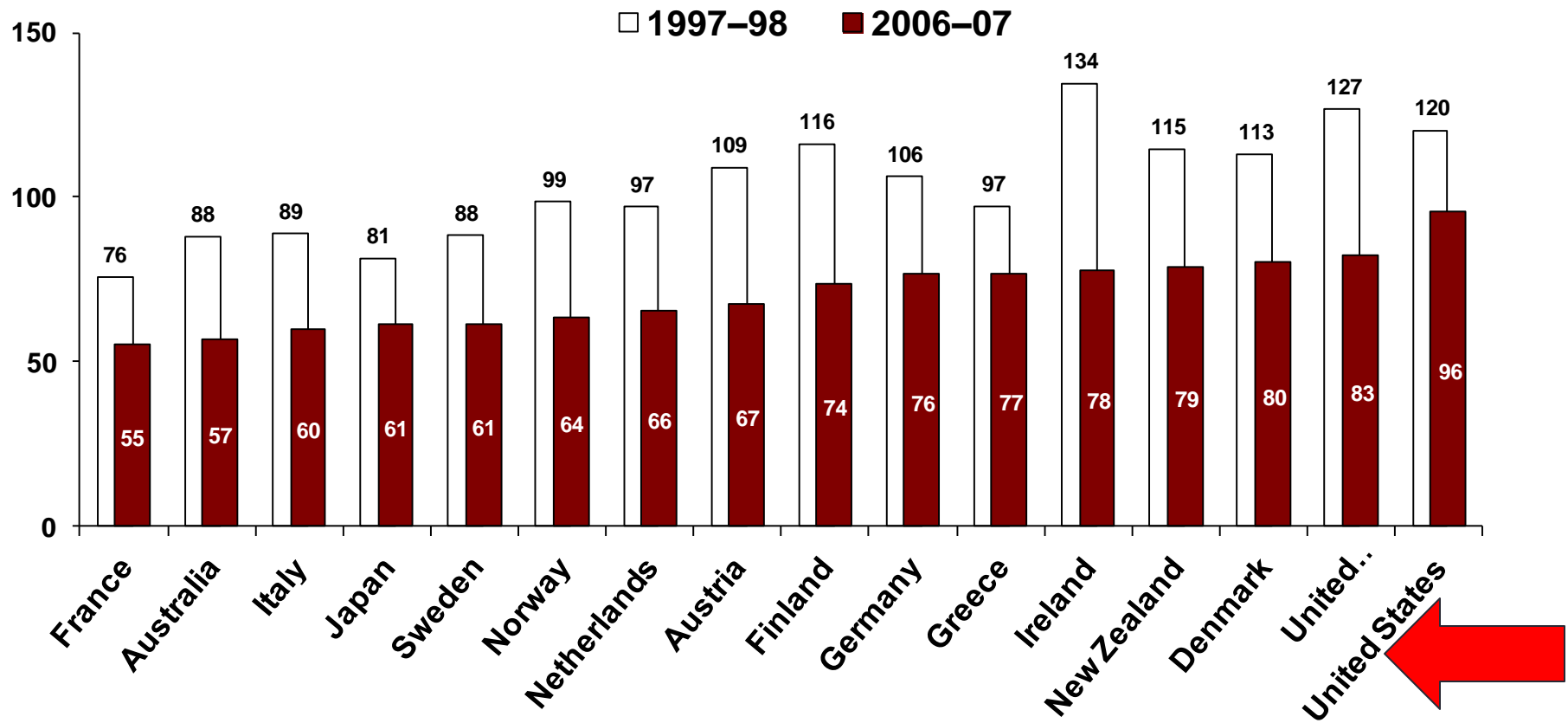
Sources: Institute of Medicine: To Err is Human, 2000
deVries et al Qual Safe Health Care 17:216-23, 2008
Classen et al Health Affairs 30: 581-589, 2011



Source: OECD Health Data 2011 (Nov. 2011).

Mortality Amenable to Health Care

Deaths per 100,000 population*



*Countries' age-standardized death rates before age 75; including ischemic heart disease, diabetes, stroke, and bacterial infections.

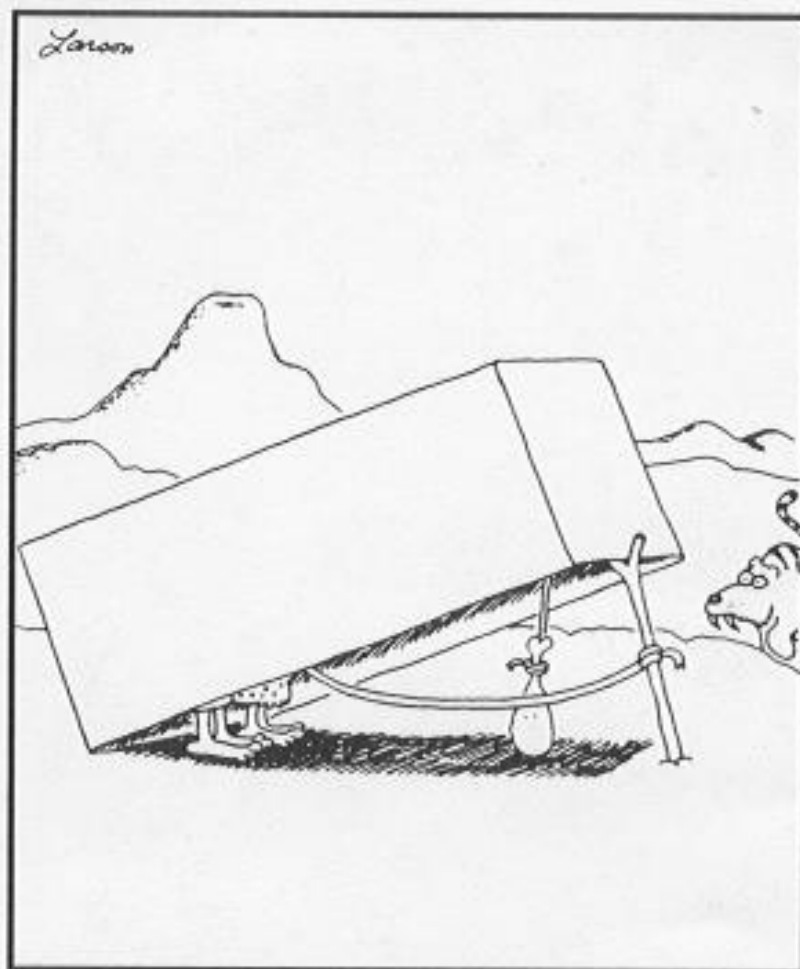
Table 3. Adherence to Quality Indicators, Overall and According to Type of Care and Function.

Variable	No. of Indicators	No. of Participants Eligible	Total No. of Times Indicator Eligibility Was Met	Percentage of Recommended Care Received (95% CI)*
Overall care	439	6712	98,649	54.9 (54.3–55.5)
Type of care				
Preventive	38	6711	55,268	54.9 (54.2–55.6)
Acute	153	2318	19,815	53.5 (52.0–55.0)
Chronic	248	3387	23,566	56.1 (55.0–57.3)
Function				
Screening	41	6711	39,486	52.2 (51.3–53.2)
Diagnosis	178	6217	29,679	55.7 (54.5–56.8)
Treatment	173	6707	23,019	57.5 (56.5–58.4)
Follow-up	47	2413	6,465	58.5 (56.6–60.4)

* CI denotes confidence interval.

The Obstacles

- Physicians primarily rely on narrative tools, memory, and hard work to improve the care of their patients, one at a time
- This system does not promote sustainability
- What we need is:
 - Redesigning processes using knowledge of human factors
 - Tools to assist in the process of improvement



"Shhhh, Zog! ... Here come one now!"

Quality Care - AHRQ

- Doing the right thing, at the right time, in the right way, for the right person – and having the best possible results.

Quality Care - IOM

1. **Safe** – avoiding injuries to patients from care that is intended to help them
2. **Effective** – providing services based on scientific knowledge to all who could benefit, and refraining from using services not likely to benefit
3. **Pt centered** – respectful of and responsive to individual pt preferences, needs, and values, and ensuring that pt values guide all clinical decisions
4. **Timely** – reducing waits and harmful delays
5. **Efficient** – avoiding waste of equipment, supplies, ideas, and energy
6. **Equitable** – care does not vary in quality because of gender, ethnicity, geographic location, and socioeconomic status

The Beginning of Quality Improvement

- QI was first studied as an industrial process in 1931
 - Goal was to identify customer needs, reduce variations in process, and minimize inspections
- Methods were adopted by post-WWII Japanese engineers and executives
 - Toyota Production System
- QI use has spread into health care
 - Six Sigma, Lean, PDSA

Continuous Quality Improvement

- Based on the principle that an opportunity for improvement exists in every process on every occasion
- Emphasizes the view of health care as a process and focuses on improving the system, rather than on the individual



Question #2

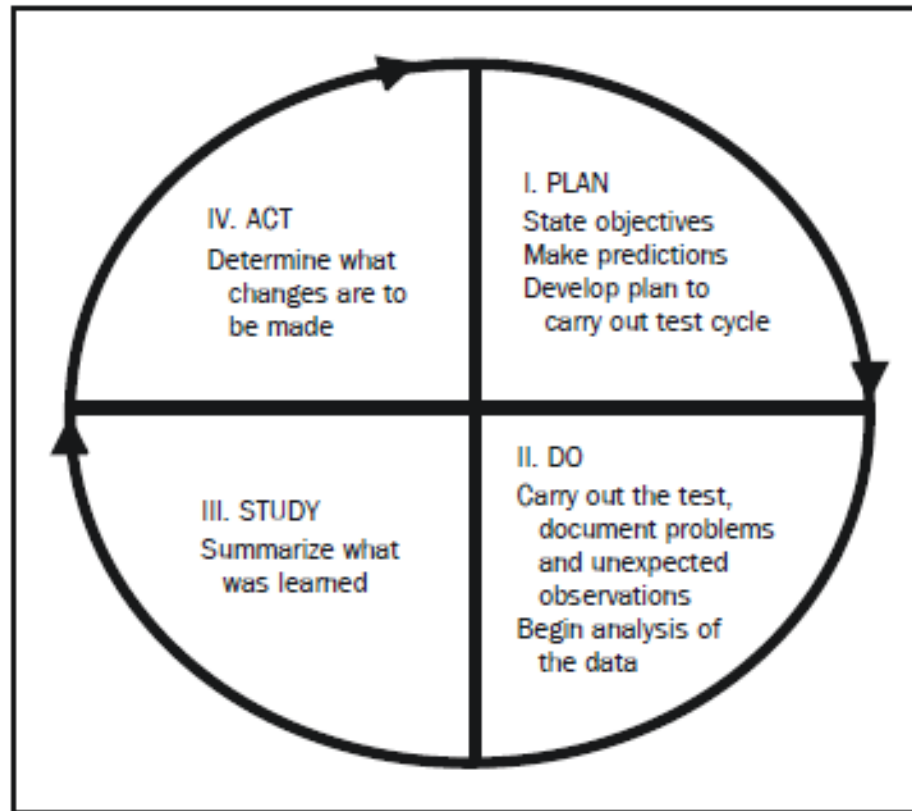
- Providing appropriate antibiotics for patients as soon as possible who present with sepsis reduces mortality and is a collected quality metric. Your hospital is trying to improve this timing. Which of the following is the strongest strategy you can implement?
- A. Have the nurses run to the pharmacy to pick up all antibiotics for septic patients
- B. Develop an order set that contains appropriate doses for medications and lists all orders as STAT
- C. Tell the doctors they are not working hard enough and they will be fired if the timing does not improve
- D. Put up signs around the emergency department indicating the importance of early antibiotics in sepsis

Question #2

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QI Tools

- PDSA cycle
- Six-Sigma
- Lean methodology



Six-Sigma

- Developed by Motorola, Inc. in the mid-1980s
- Designed to reduce cost, decrease process variation, and eliminate defects
- Sigma is a statistical unit reflecting the number of standard deviations a process is from perfection
 - By six-sigmas the process is virtually error free

Six-Sigma

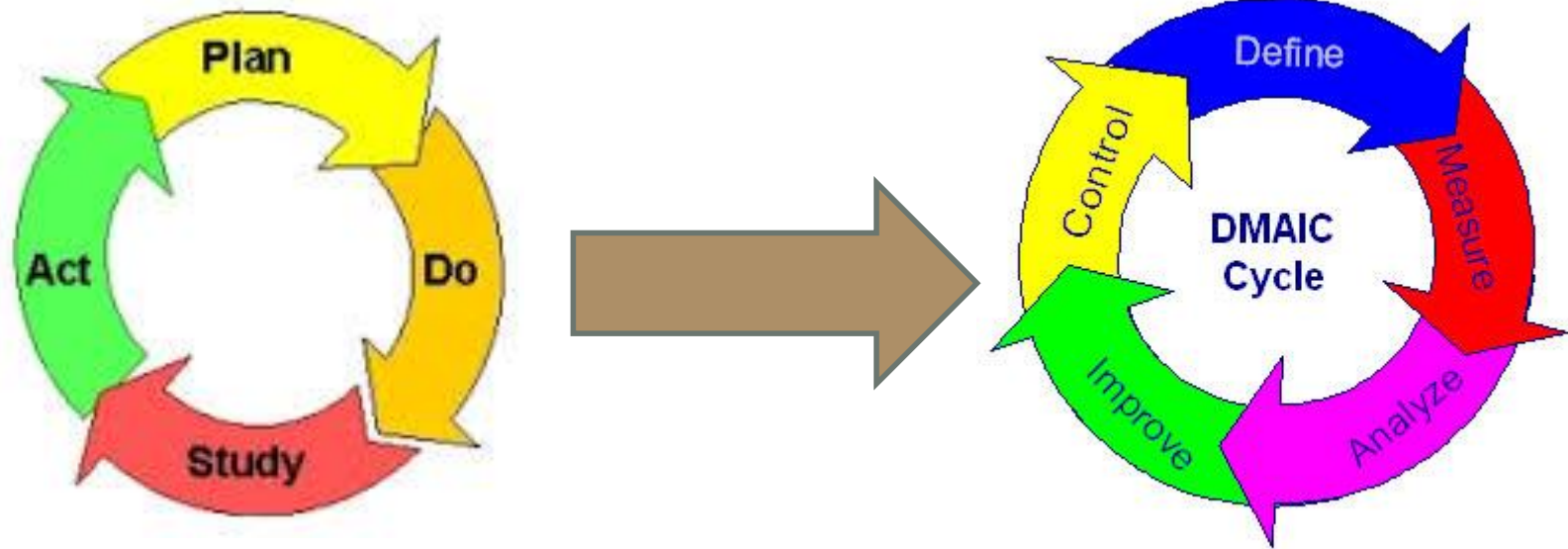
- Uses the DMAIC algorithm
 - Define
 - Measure
 - Analyze
 - Improve
 - Control

Lean Methodology

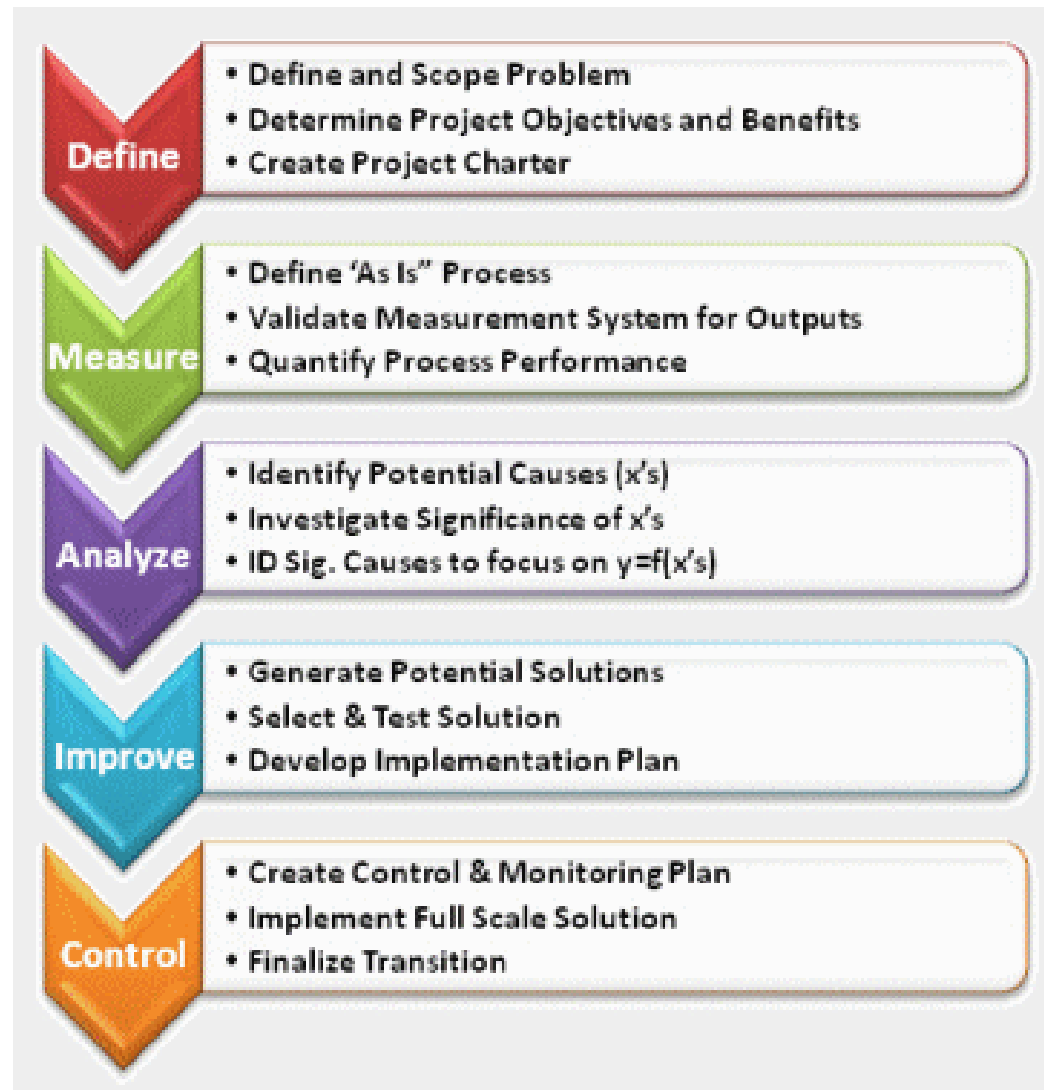
- Developed by Taiichi Ohno, a Toyota Motor Corporation engineer in the early 1950s
 - Created the Toyota Production System
- Goal is to identify needs of the customer and aims to improve processes by removing non-value-added waste
 - Non-value-added waste are steps that do not add to business margin or customer's experience



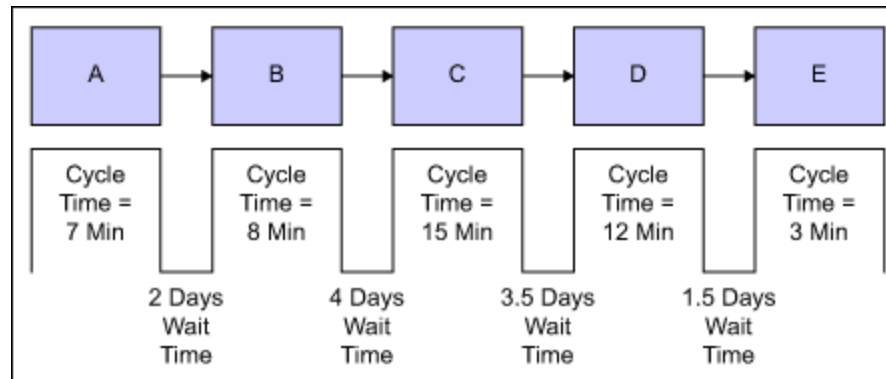
PDSA to DMAIC



DMAIC

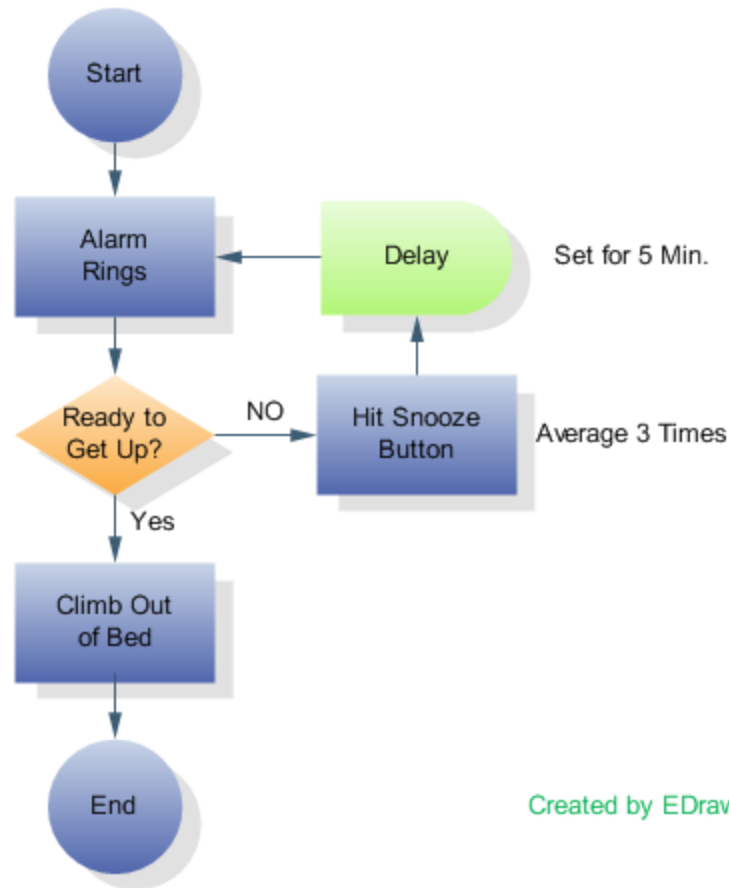


Value Stream Mapping



Value stream mapping allows visualization of where waste can be removed

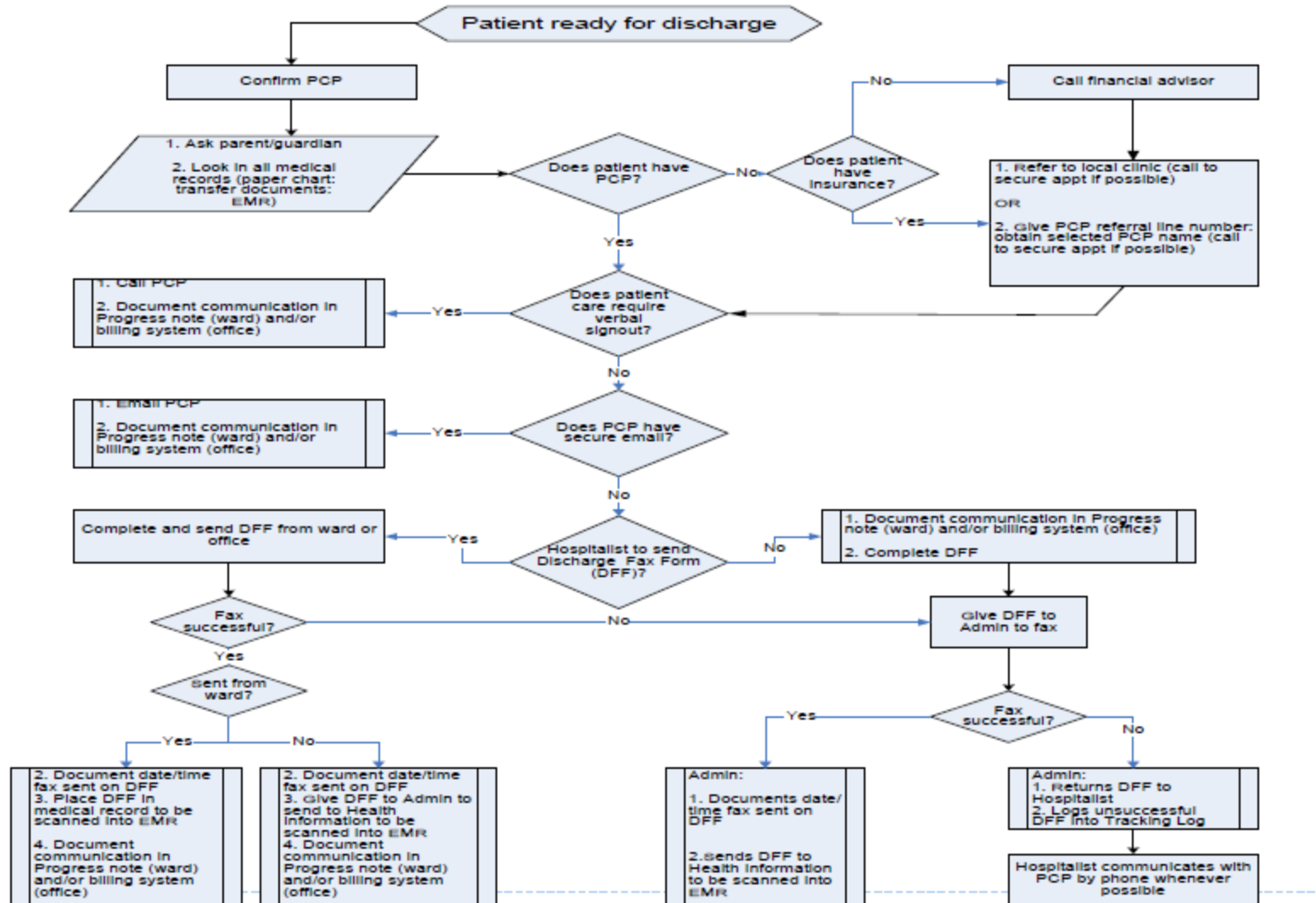
Process Map



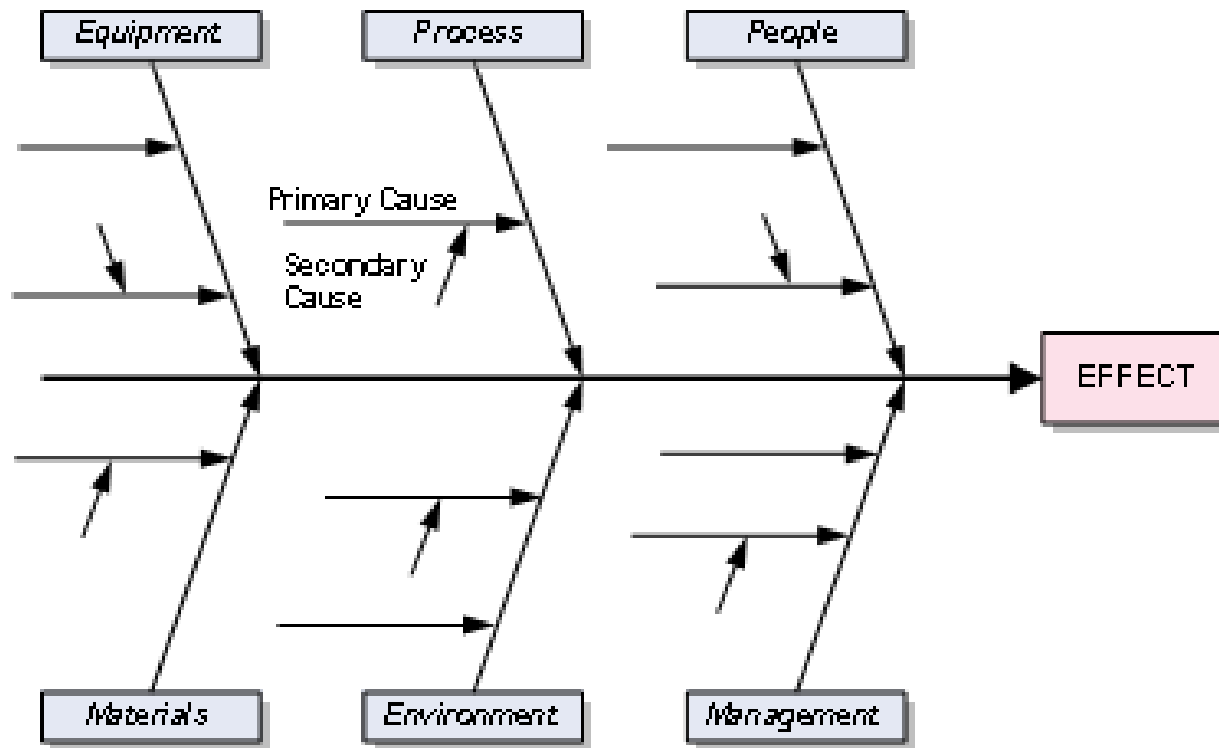
Process map visualize each step in the process to determine possible areas of intervention

Created by EDraw

Hospitalist-PCP Discharge Communication Process Map



Ishikawa (Fishbone) Diagram



- Brainstorm causes
- Group and label causes
- Arrange in fishbone
- Flush out any other causes

5-Why Analysis

My tea was cold



(1) Why was my tea cold?



The kettle didn't heat the water

(2) Why didn't the kettle heat the water?



No power – the fuse in the plug was blown

(3) Why was the fuse in the plug blown?



An incorrect rated fuse was fitted

(4) Why was an incorrect rated fuse fitted?



The required fuse was not specified

(5) Why was the correct fuse not specified?



There was no specification for fuses

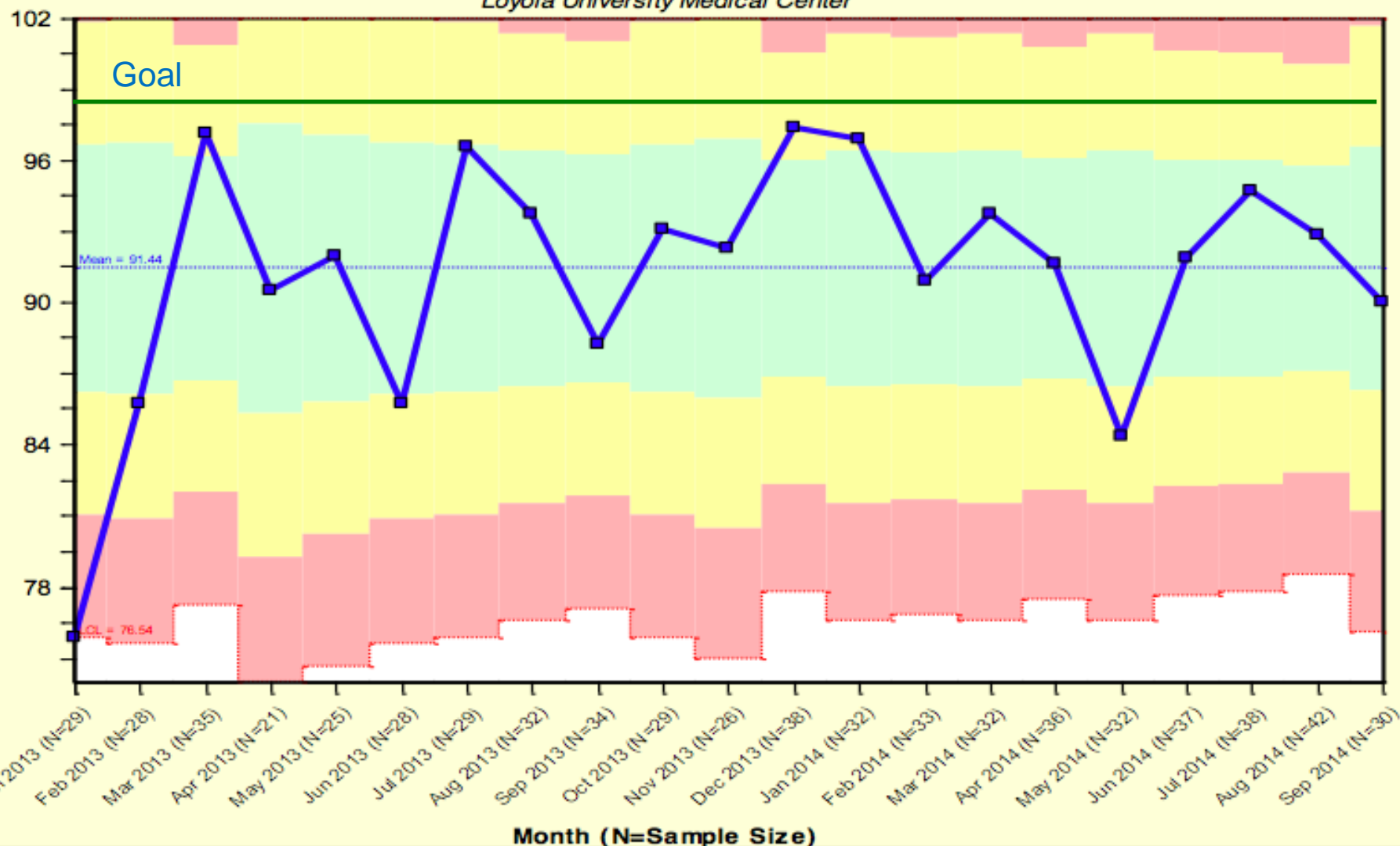
NOW A REAL LIFE PROJECT...

October 2014

	Clinical Indicators	Publicly Reported	Gottlieb	Loyola	Except Perf	Target	Above Median	Median	Date of Data
Clinical Process 15%	Influenza Immunization (IMM-2)	CMS	86%	88%	99%	97%	90% - 96%	<90%	Jan 14 - Jun 14
	Initial ABX Selection for Pneumonia Patients (PN-6)	CMS	94%↓	100% EP	100%	99%	95% - 98%	<95%	Jan 14 - Jun 14
	Venous Thromboembolism Prophylaxis (VTE-1)	CMS	68%	92%	98%	94%	83% - 93%	<83%	Jan 14 - Jun 14
	Elective Delivery prior to 39 weeks (PC-01)	CMS	0.0% EP	0.0% EP	0.0%	1.0%	2.0% - 3.0%	>3.0%	Jan 14 - Jun 14
	ED Median Arrival to Discharge Time (OP-18b)	CMS	222	234	95	113	114 - 134	>134	Jan 14 - Jun 14
	Timely Sepsis Antibiotic Administration				100%	93%	89% - 92%	<89%	Jan 14 - Jun 14
Patient Safety 40%	Falls with Injury per 1000 Patient-Days		0.25	0.15		0.00	0.01 - 0.60	>0.60	Jan 14 - Jun 14
	AHRQ PSI 3 Pressure Ulcers	CMS	0.00	0.00		0.00	0.01 - 0.45	>0.45	Jan 14 - Jun 14
	AMI 30 Day All Cause Readmission Rate (Medicare)	CMS	7.9% EP	13.8%	8.0%	10.0%	10.1% - 12.5%	>12.5%	Jan 14 - Jun 14
	HF 30 Day All Cause Readmission Rate (Medicare)	CMS	9.5% EP	23.1%	12.0%	15.0%	15.1% - 18.5%	>18.5%	Jan 14 - Jun 14
	PN 30 Day All Cause Readmission Rate (Medicare)	CMS	20.5%	13.7%↓	9.0%	11.0%	11.1% - 13.0%	>13.0%	Jan 14 - Jun 14
	Central Line Associated Blood Stream Infection	CMS	0.00 EP	0.12	0.00	0.30	0.31 - 0.47	>0.47	Oct 13 - Mar 14
	Catheter Associated UTI Infection	CMS	0.72	0.73	0.00	0.70	0.71 - 0.80	>0.80	Oct 13 - Mar 14
	% SRE's Reported Within 5 Days of Discovery		92%	96%		100%		<100%	Mar 14 - Aug 14
	Severity Adjusted Mortality Ratio		0.89	0.93	0.66	0.85	0.86 - 1.00	>1.00	Jan 14 - Jun 14
	AHRQ PSI 90 Composite	CMS	0.476	0.322 EP	0.450	0.500	0.510 - 0.616	>0.616	Jul 13 - Jun 14
	AHRQ Overall Perception of Safety		60%	60%	72%	69%	66% - 69%	<66%	Mar 14
	% of Nursing Staff with BSN Degree		61.6% EP		57.0%	47.0%	47.0% - 46.0%	<47.0%	Oct 14
Patient Exp of Care 30%	TJC Accreditation and CMS Status	TJC/CMS	4	4		4		<4	Apr 14
	Overall Rating	CMS	65.8%	69.1%↓	84.0%	76.0%	69.3% - 75.0%	<69.3%	Jan 14 - Jun 14
	Pain Management	CMS	70.0%	73.1%	78.2%	75.0%	70.2% - 74.0%	<70.2%	Jan 14 - Jun 14
	Communications with Nurses	CMS	75.1%	78.6%	86.1%	82.1%	77.7% - 81.1%	<77.7%	Jan 14 - Jun 14
	Communications with Doctors	CMS	75.9%	80.8%	88.6%	84.1%	80.4% - 83.1%	<80.4%	Jan 14 - Jun 14
	Discharge Instructions	CMS	81.2%	89.3%	90.4%	88.7%	84.7% - 87.7%	<84.7%	Jan 14 - Jun 14
	Perception Hourly Rounding	CMS	54.1%		62.0%	58.4%	53.8% - 58.3%	<53.8%	Jan 14 - Jun 14

Venous Thromboembolism Prophylaxis (VTE-1) Core Measure

Loyola University Medical Center



Definition: Venous Thromboembolism patients who received VTE prophylaxis or have documentation why no VTE prophylaxis was given the day of or the day after hospital admission or surgery end date for surgeries that start the day of or the day after hospital admission.

Data Source: Original data extracted from LUMC charts by RNs.

Question #3

- As the new lead for this project, what is your first step?
 - A. You get the most senior people you can find to put together a small group.
 - B. You collect a multidisciplinary team to assist you.
 - C. You tell the Chief Quality Officer that you know how to fix the problem and you will change things yourself.
 - D. You decide this is not what you signed up for and resign from the committee.

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Project Charter

PROBLEM STATEMENT:

Hospitalized patients are at high-risk for VTE [deep vein thrombosis (DVT) and pulmonary embolism (PE)], which can lead to serious morbidity or death. Despite the known effectiveness of thromboprophylaxis, rates of use remain less than optimal. Additionally, hospital rates of prophylaxis for at-risk patients are publically reported on the CMS Hospital Compare website. Currently, the VTE prophylaxis rate is approximately 91.4% at LUMC and 68% at GMH. Both are below the Trinity target of 94%.

GOALS:

The ultimate goal of this project is to improve VTE prophylaxis rates to 98%, which is the Trinity Target Exceptional Performance Rate. The initial goal will be to improve to the Trinity target rate of 94%.

TEAM:

Project Champion: William Barron, MD

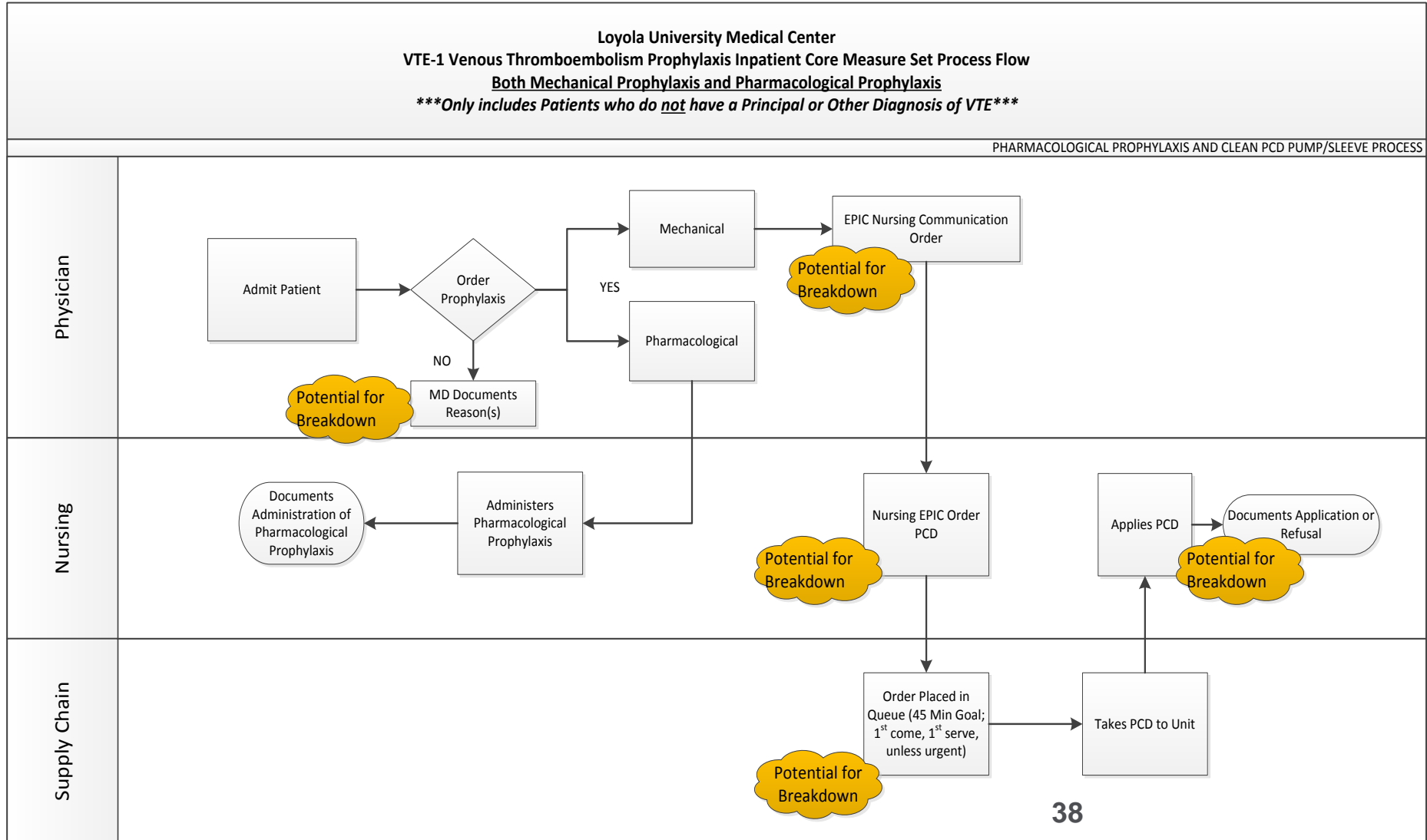
Leaders: Kevin Smith, MD, Gerald Luger, MD, Lynette Wilkos-Prostran, Michael Pinzur, MD

QI Specialist: Adrienne Gabriel

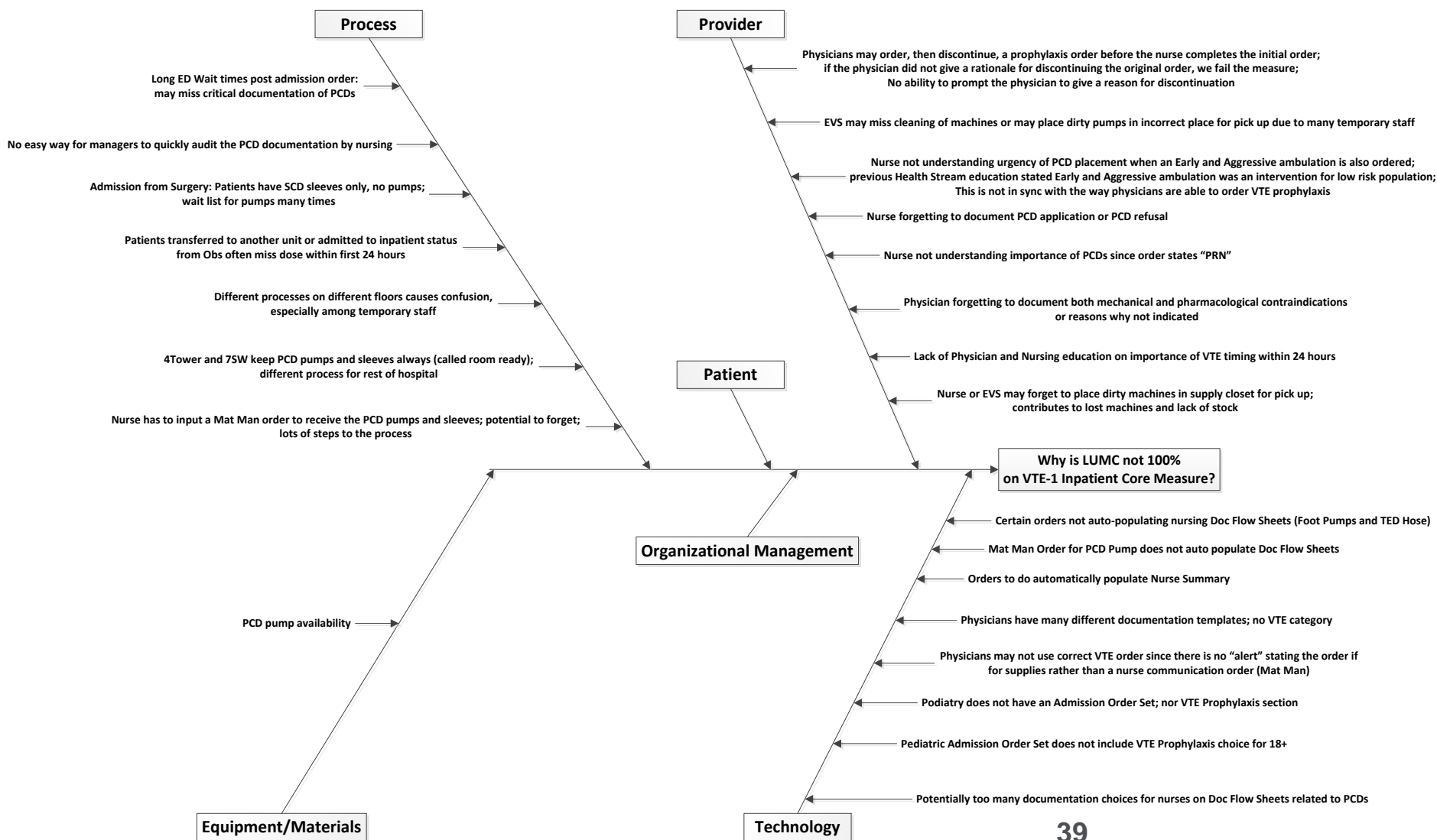
Data Support: Karen Nachman, Laurel Hufford, Yao Streng, Patricia Cavaliere

Team Members: Camille Robinson, Chris Wood, Connie Giere

Current State Process Map (LUMC)



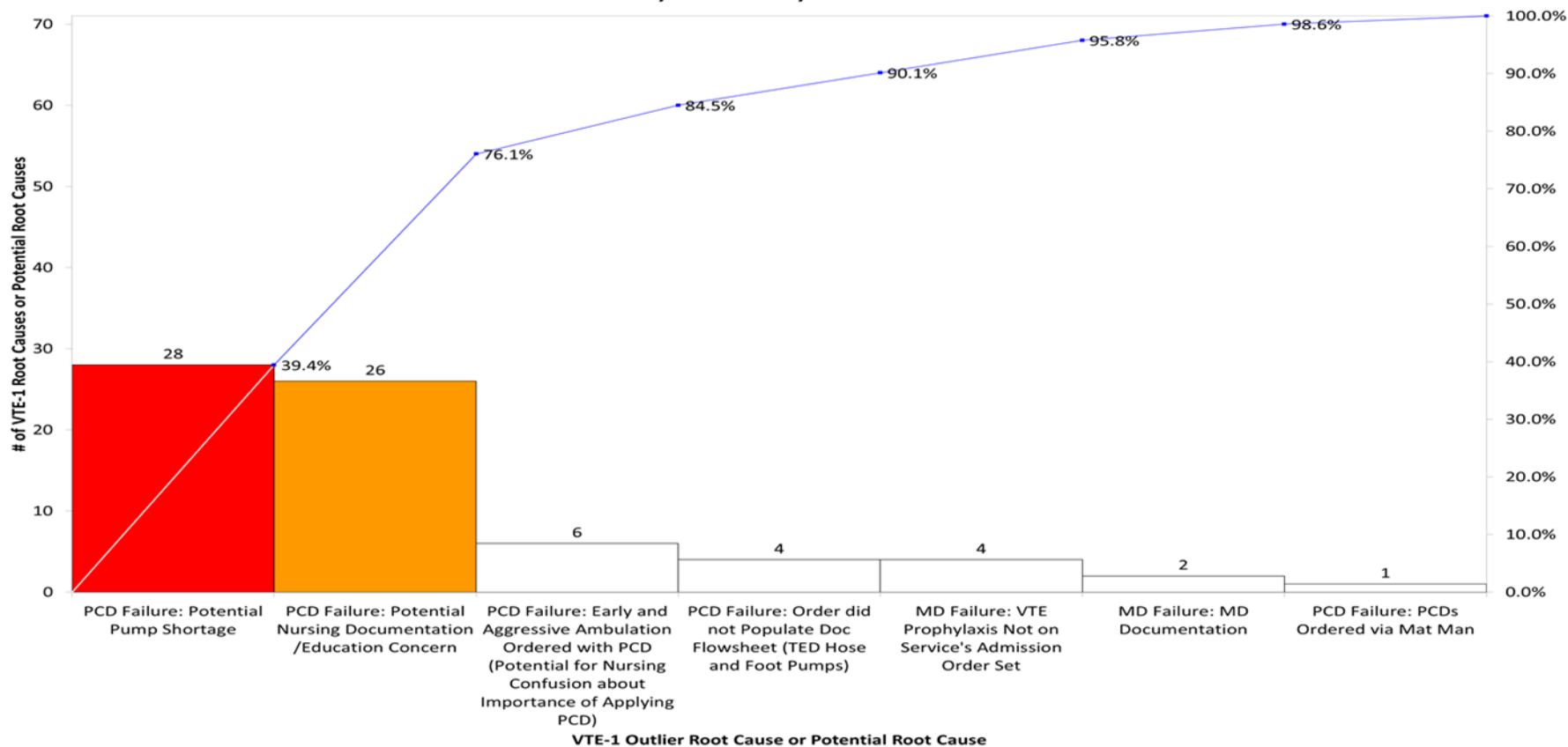
Fishbone Diagram (LUMC)



Pareto (LUMC)

Detailed Analysis in Process

VTE-1 Outlier Root Causes or Potential Root Causes
 (Potential Root Causes May Get Stratified Further once Detailed Analytic Plan is Completed)
 Calendar Year 2014
 Loyola University Medical Center

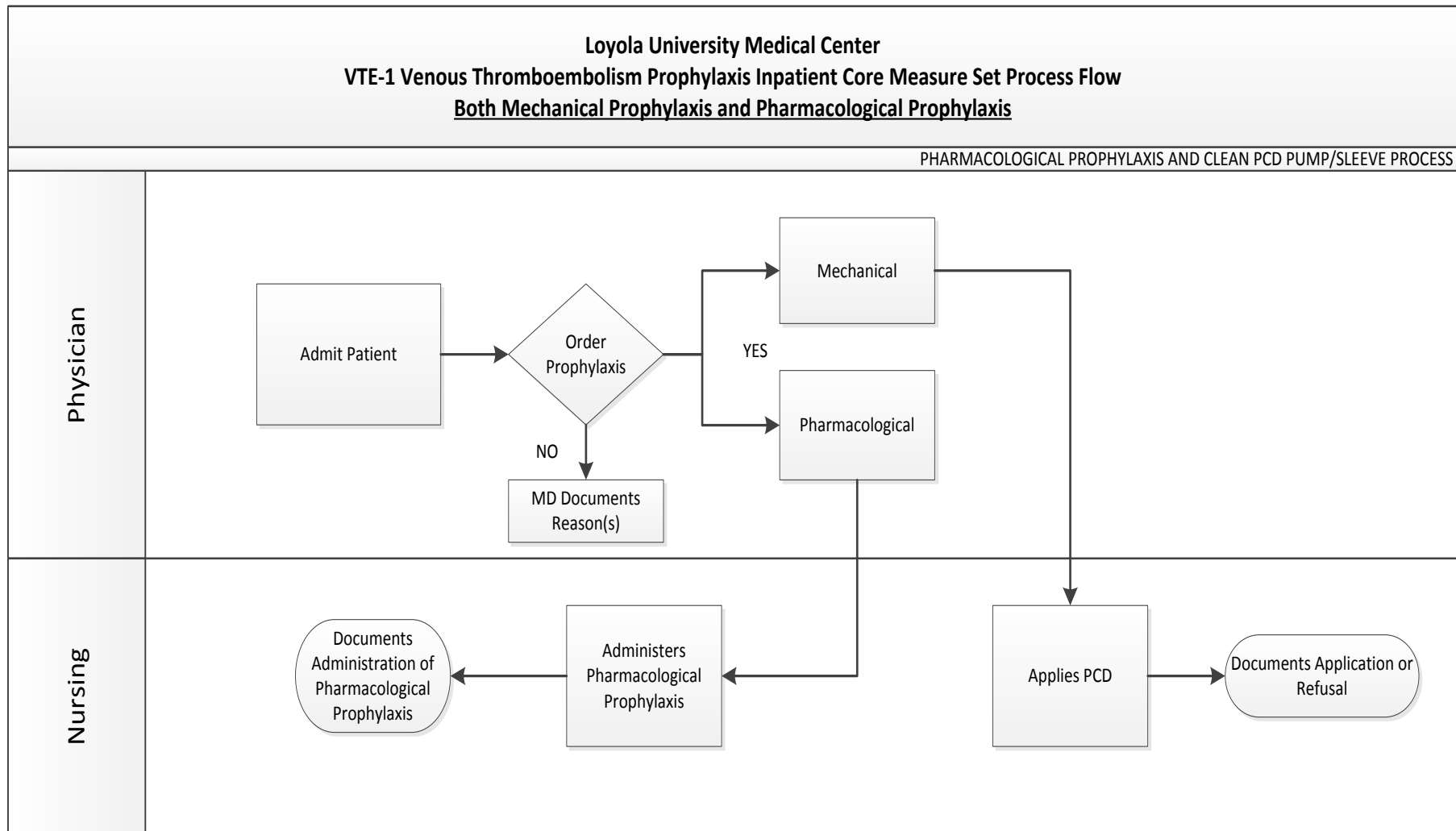


Each Outlier May have More than One Potential Root Cause
 Total # of PCD Failures for CY 2014: 28
 Total # of MD Failures for CY 2014: 6

Interventions (LUMC)

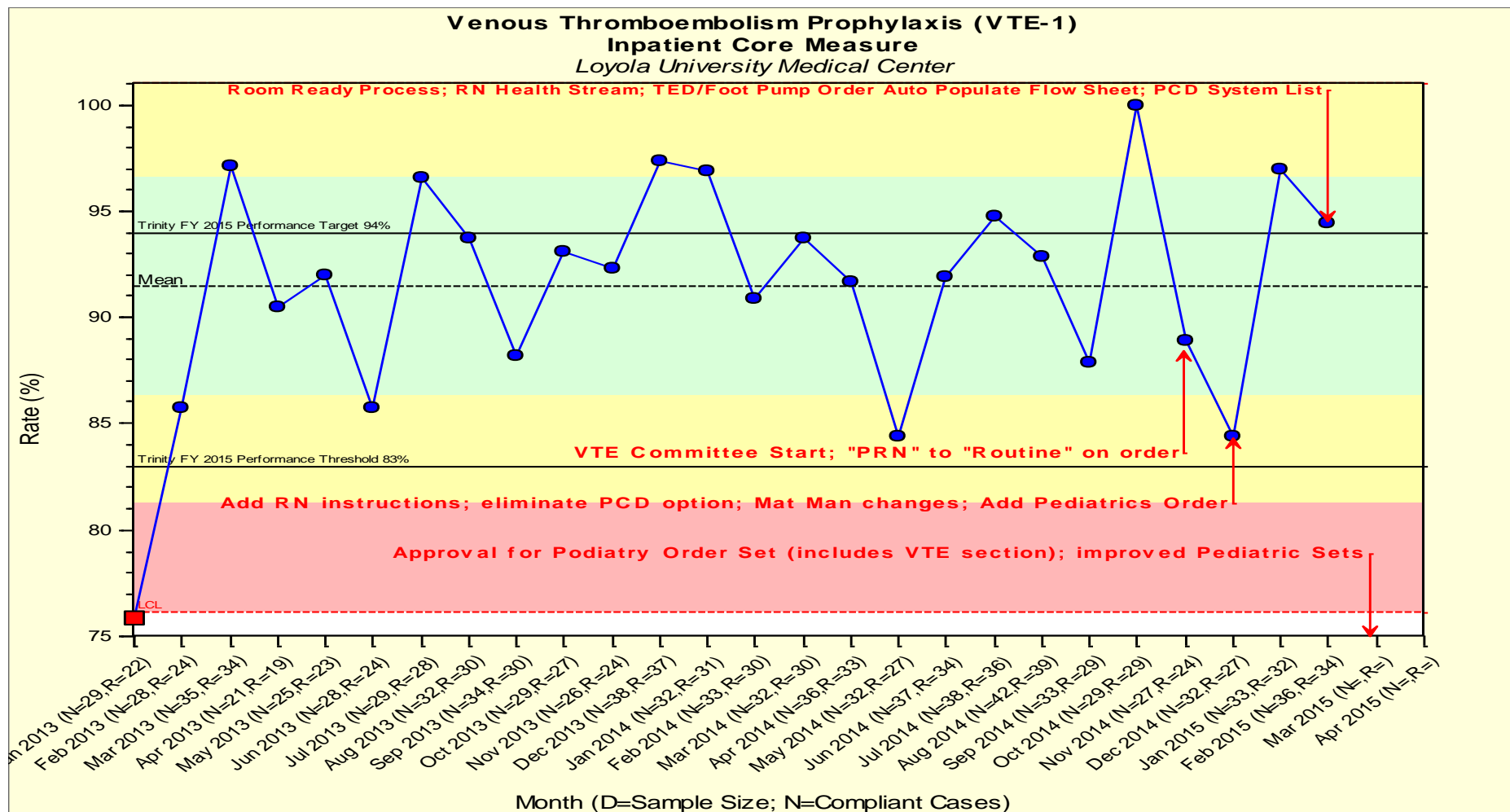
Intervention	VTE-1 Outlier Root Cause or Potential Root Cause Category	Frequency of Outliers within Root Cause Category	Prioritization (Effort)	Prioritization (Potential Impact)	Hospital	Responsible Party	Date Completed
Implement Room Ready Process	PCD Failure: Potential Pump Shortage	28	High	High	LUMC	Lynette	1/30/2015
Change frequency of "PRN" to "Routine" for PCD orders.	PCD Failure: Potential Nursing Documentation/Education Concern	26	Low	High	LUMC	Camille	11/17/2014
Add additional wording to VTE order set regarding PCD in relation to nurse instructions for improved understanding	PCD Failure: Potential Nursing Documentation/Education Concern	26	Low	High	LUMC	Camille	12/17/2014
Eliminate "40mmHg" choice for nursing documentation of SCD application	PCD Failure: Potential Nursing Documentation/Education Concern	26	Low	High	LUMC	Camille	12/17/2014
Nursing Education on Health Stream regarding General VTE Education, Room Ready Process, Documentation	PCD Failure: Potential Nursing Documentation/Education Concern	26	High	High	LUMC	Nurse Ed	1/31/15-4/30/15
Develop an EPIC system list related to PCD pump documentation; for quick snapshot of relevant documentation	PCD Failure: Potential Nursing Documentation/Education Concern	26	Low	Low	LUMC	Camille	1/26/2015
Mat Man Orders for PCD/Foot Pumps trigger in RN Doc Flow Sheets	PCD Failure: PCDs Ordered via Mat Man	1	Low	Low	LUMC	Camille	12/9/2014
Add "alert" that Mat Man order only is a Materials Management supply order rather than a nurse communication	PCD Failure: PCDs Ordered via Mat Man	1	Low	Low	LUMC	Camille	12/9/2014
Eliminate Mat Man Order once Room Ready goes Live	PCD Failure: PCDs Ordered via Mat Man	1	Low	Low	LUMC	Camille	TBD
Orders for TED Hose and Foot Pumps to Auto Populate Doc Flow Sheets for Nursing	PCD Failure: Order did not Auto Populate Doc Flowsheet (TED Hose and Foot Pumps)	4	Low	Low	LUMC	Camille	Feb-15
Nursing Education to include "ALERT: If PCDs are ordered, they should still be placed even if early and aggressive ambulation is also ordered."	PCD Failure: Early and Aggressive Ambulation Ordered with PCD (Potential for Nursing Confusion about Importance of Applying PCD)	6	Low	High	LUMC	Nurse Ed	1/31/15-4/30/15
Remove Early and Aggressive Ambulation as an option within the order sets	PCD Failure: Early and Aggressive Ambulation Ordered with PCD (Potential for Nursing Confusion about Importance of Applying PCD)	6	Low	High	LUMC	Kevin/ Camille	TBD
Develop admission order set and include VTE Prophylaxis section	MD Failure: VTE Prophylaxis Not on Service's Admission Order Set (Podiatry)	4	Low	Low	LUMC	Camille/ Dr. Pinzur	Mar-15
Add VTE Prophylaxis Section to Service's Admission Order Set	MD Failure: VTE Prophylaxis Not on Service's Admission Order Set (Pediatrics)	4	Low	Low	LUMC	Camille	12/16/2014
Add VTE Prophylaxis Section to Service's Admission Order Set	MD Failure: VTE Prophylaxis Not on Service's Admission Order Set (Oncology)	4	Low	Low	LUMC	Camille	Jun-14
Develop a Best Practice Alert that will require physician documentation for reason for discontinuing prophylaxis	MD Failure: MD Documentation	2	High	Low	LUMC	TBD	TBD

Future State Process Map (LUMC)



Venous Thromboembolism (VTE-1)

Loyola University Medical Center



Definition: Patients who received VTE prophylaxis or have documentation why no prophylaxis was given the day of or the day after hospital admission or surgery end date for surgeries that start the day of or the day after hospital admission.

Data Source: Original data abstracted from LUMC charts by CCE abstractors.

- Honda Accord
Things just work/cog
commercial
- One splice
- No special effects
- 606 takes

- <https://www.youtube.com/watch?v=mUEDng7jI8c>

Why Care About QI?

- Improving how we deliver care to patients is the right thing to do
- \$\$
- Because we have to

Patient Quality Organizations

- Leapfrog established in 2000 by several large US companies significantly affected by increasing health insurance costs
- Joint Commission started in 1951 and accredits health care programs, and began using outcomes and performance data in 1997
- Center for Medicare and Medicaid Services (CMS)

CMS

- CMS is one of the main players in driving policy change and hospital institutional goals
- “Requests” that hospitals who care for Medicare patients report data, which is publically reported
- Encourages hospitals to adopt evidence-based, outcomes-driven health care delivery practices

CMS

- Quality measures generally are process measures, and for the inpatient setting are in the following categories:
 - Acute myocardial infarction (AMI)
 - Heart failure (HF)
 - Pneumonia (PN)
 - Surgical Care and Improvement Project (SCIP)
 - Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS)

Quality Measures

- Structure
 - How was care delivered to the patient
- Process
 - What was done to the patient
- Outcome
 - What happened to the patient
- Balancing
 - Unintended, undesirable consequences

	Structure	Process	Outcome
Example	In house cardiologist present at all times	Beta-blocker after heart attack	Risk-adjusted mortality rates after acute MI
Strengths	<ul style="list-style-type: none"> • Easy to measure • One measure relates to multiple outcomes 	<ul style="list-style-type: none"> • Reflect care that patients receive • Directly actionable • Do not need risk adjustment 	<ul style="list-style-type: none"> • Face validity high • Understandable by most users • Reflect ultimate goal of treatment
Weaknesses	<ul style="list-style-type: none"> • Not easily actionable • May not be tightly linked with outcomes 	<ul style="list-style-type: none"> • May or may not be tightly linked outcomes • Data collection may be difficult 	<ul style="list-style-type: none"> • May be rare (sample size) • Requires risk adjustment • May be difficult to influence

Question #4

- Your CEO asks you to lead a project related to improving the rate of appropriate initial antibiotic use for patients who present to the ED with pneumonia. What kind of measure is this?
 - A. Structure
 - B. Process
 - C. Outcome
 - D. Balancing

Question #4

- Your CEO asks you to lead a project related to improving the rate of appropriate initial antibiotic use for patients who present to the ED with pneumonia. What kind of measure is this?
 - A. Structure
 - B. Process
 - C. Outcome
 - D. Balancing

Examples of CMS Measures

AMI

- Aspirin at arrival
- Aspirin at discharge
- ACE-I or ARB for LV systolic dysfunction
- Smoking cessation advice/counseling
- Beta blocker at arrival
- Beta blocker at discharge
- Fibrinolytic within 30 minutes or PCI within 90 minutes of arrival
- Risk-adjusted rate of readmission
- Risk-adjusted death rate

HF

- Discharge instructions
- Evaluation of LV systolic function
- ACE-I or ARB for LV systolic dysfunction
- Smoking cessation advice/counseling
- Risk-adjusted rate of readmission
- Risk-adjusted death rate

All cause readmission and mortality

Examples of CMS Measures

PN

- Oxygenation assessment
- Assessed and given pneumococcal vaccination
- Blood culture performed prior to antibiotics
- Smoking cessation advice/counseling
- Initial antibiotics within 6 hours after arrival
- Given most appropriate initial antibiotics
- Assessed and given influenza vaccination
- Risk-adjusted rate of readmission
- Risk-adjusted death rate

SCIP

- If on beta blockers, kept on beta blockers in perioperative period
- Given antibiotic one hour before surgery
- Given right kind of perioperative antibiotic
- Perioperative antibiotics stopped within 24 hours
- Cardiac surgery patients with good glycemic control after surgery
- Proper hair removal prior to surgery
- VTE prophylaxis ordered
- VTE prophylaxis given

Examples of CMS Measures

HCAHPS

- Nurses communicated well
- Doctors communicated well
- Received help as soon as they wanted
- Pain was well controlled
- Explained medicines before giving it to them
- Room and bathroom clean
- Area around their room was quiet at night
- Given discharge information
- Hospital rating 0-10
- Would hospital be recommended?

Medicare.gov | Hospital Compare

The Official U.S. Government Site for Medicare

Hospital Compare
Home

About Hospital
Compare

About the Data

Resources

Help

Home

[Share](#)

HCAHPS scores for patients discharged between April 2012 and March 2013 are now available on Hospital Compare and in the Downloadable Databases.

Find a hospital

A field with an asterisk (*) is required.

* **Location**

Example: 45802 or Lima, OH or Ohio

Hospital name

Search



Affordable Care Act and CMS

- Hospital Value-Based Purchasing Program
 - Since October 2012, participating hospitals receive incentive payments for providing high quality care or improving care
 - Designed to pay for quality of care rather than quantity of services
 - Goal to promote better clinical outcomes and to improve experience of care during hospital stays
 - Baseline data was July 1, 2009 to March 31, 2010

Hospital Value-Based Purchasing

- Hospitals earn two scores for each measure:
 - Achievement points
 - Improvement points
 - Score for that measure is the higher of the two points
- Points are based on hospital's position between achievement threshold and benchmark

Clinical Process of Care Measures	
Measure ID	Measure Description
Acute Myocardial Infarction (AMI)	
AMI-7a	Fibrinolytic Therapy Received Within 30 Minutes of Hospital Arrival
AMI-8a	Primary Percutaneous Coronary Intervention (PCI) Received Within 90 Minutes of Hospital Arrival
Heart Failure (HF)	
HF-1	Discharge Instructions
Pneumonia (PN)	
PN-3b	Blood Cultures Performed in the Emergency Department Prior to Initial Antibiotic Received in Hospital
PN-6	Initial Antibiotic Selection for Community-Acquired Pneumonia (CAP) in Immunocompetent Patient
Healthcare-associated Infections (SCIP = Surgical Care Improvement Project)	
SCIP-Inf-1	Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision
SCIP-Inf-2	Prophylactic Antibiotic Selection for Surgical Patients
SCIP-Inf-3	Prophylactic Antibiotics Discontinued Within 24 Hours After Surgery End Time
SCIP-Inf-4	Cardiac Surgery Patients with Controlled 6:00 a.m. Postoperative Serum Glucose
Surgeries	
SCIP-Card-2	Surgery Patients on a Beta Blocker Prior to Arrival That Received a Beta Blocker During the Perioperative Period
SCIP-VTE-1	Surgery Patients with Recommended Venous Thromboembolism (VTE) Prophylaxis Ordered
SCIP-VTE-2	Surgery Patients Who Received Appropriate Venous Thromboembolism Prophylaxis Within 24 Hours Prior to Surgery to 24 Hours After Surgery
Survey Measures	
Measure ID	Measure Description
HCAHPS	Hospital Consumer Assessment of Healthcare Providers and Systems Survey

Will also include mortality outcome measures for AMI, HF, and PNA since FY 2014

Why Is this Important?

- Hospitals at risk of losing 1% (2% in 2017) of base operating Diagnosis-Related Group (DRG) payments
- Some hospitals will lose up to this 1%, some hospitals will earn back more than 1%

FY2015 Trinity Health Clinical Operations Scorecard

March 2015

	Clinical Indicators	Publicly Reported	Gottlieb	Loyola	Except Perf	Target	Above Median	Median	Date of Data
Clinical Process 15%	Influenza Immunization (IMM-2)	CMS	99% EP	93%↑	99%	97%	90% - 96%	<90%	Jun 14 - Nov 14
	Initial ABX Selection for Pneumonia Patients (PN-6)	CMS	97%	95%	100%	99%	95% - 98%	<95%	Jun 14 - Nov 14
	Venous Thromboembolism Prophylaxis (VTE-1)	CMS	83%↑	93%	98%	94%	83% - 93%	<83%	Jun 14 - Nov 14
	Elective Delivery prior to 39 weeks (PC-01)	CMS	0.0% EP	2.4%	0.0%	1.0%	2.0% - 3.0%	>3.0%	Jun 14 - Nov 14
	ED Median Arrival to Discharge Time (OP-18b)	CMS	208	267	95	113	114 - 134	>134	Jun 14 - Nov 14
	Timely Sepsis Antibiotic Administration				100%	93%	89% - 92%	<89%	Jun 14 - Nov 14
Patient Safety 40%	Falls with Injury per 1000 Patient-Days		0.17	0.07		0.00	0.01 - 0.60	>0.60	Jun 14 - Nov 14
	AHRQ PSI 3 Pressure Ulcers	CMS	0.00	0.00		0.00	0.01 - 0.45	>0.45	Jun 14 - Nov 14
	AMI 30 Day All Cause Readmission Rate (Medicare)	CMS	11.9%↓	13.3%↓	8.0%	10.0%	10.1% - 12.5%	>12.5%	Jun 14 - Nov 14
	HF 30 Day All Cause Readmission Rate (Medicare)	CMS	10.5% EP	20.8%	12.0%	15.0%	15.1% - 18.5%	>18.5%	Jun 14 - Nov 14
	PN 30 Day All Cause Readmission Rate (Medicare)	CMS	13.2	17.8%	9.0%	11.0%	11.1% - 13.0%	>13.0%	Jun 14 - Nov 14
	Central Line Associated Blood Stream Infection	CMS	0.00 EP	0.36↓	0.00	0.30	0.31 - 0.47	>0.47	Apr 14 - Sep 14
	Catheter Associated UTI Infection	CMS	0.00 EP↑	1.64	0.00	0.70	0.71 - 0.80	>0.80	Apr 14 - Sep 14
	% SRE's Reported Within 5 Days of Discovery		100%	100%		100%		<100%	Aug 14 - Jan 15
	Severity Adjusted Mortality Ratio		1.07↓	1.07↓	0.66	0.85	0.86 - 1.00	>1.00	Jun 14 - Nov 14
	AHRQ PSI 90 Composite	CMS	0.404 EP	0.455↓	0.450	0.500	0.510 - 0.616	>0.616	Mar 14 - Nov 14
	AHRQ Overall Perception of Safety		60%	60%	72%	69%	66% - 69%	<66%	Jun 14 - Jun 14
	% of Nursing Staff with BSN Degree		61.6%	84.0% EP	63.0%	56.0%	52.0% - 55.9%	<52.0%	Oct 14 - Oct 14
	TJC Accreditation and CMS Status	TJC/CMS	4	4		4		<4	Nov 14 - Nov 14
Patient Exp of Care 30%	Overall Rating	CMS	63.1%	68.6%	84.0%	76.0%	69.3% - 75.0%	<69.3%	Jun 14 - Nov 14
	Pain Management	CMS	68.7%	70.3%	78.2%	75.0%	70.2% - 74.0%	<70.2%	Jun 14 - Nov 14
	Communications with Nurses	CMS	76.7%	78.2%↑	86.1%	82.1%	77.7% - 81.1%	<77.7%	Jun 14 - Nov 14
	Communications with Doctors	CMS	79.0%	79.6%	88.6%	84.1%	80.4% - 83.1%	<80.4%	Jun 14 - Nov 14
	Discharge Instructions	CMS	81.6%	86.1%	90.4%	88.7%	84.7% - 88.6%	<84.7%	Jun 14 - Nov 14
	Perception Hourly Rounding	CMS	55.3%		62.0%	58.4%	53.8% - 58.3%	<53.8%	Jun 14 - Nov 14
Population Health 15%	Active Provider List Provided		1	1		1			Nov 14 - Nov 14
	Board Approved Share/Savings Incentive Dist		1	1		1			Nov 14 - Nov 14
	ACO Status		1	1		1			Nov 14 - Nov 14
	ACO Quality Infrastructure		1	1		1			Nov 14 - Nov 14
	Clinical Weight Grade Point Average		2.4	2.0	3.3	2.5	2.3	<2.3	

Color change since last report: ↓ (green to yellow or yellow to red), ↑ (red to yellow or yellow to green)

Indicators with < 30 cases are not factored into Clinical GPA calculations

What Are the Barriers to Improvement?

- Culture
 - QI has been successful in other industries, so why not health care?
- Patients don't understand publically reported data
- The measures may be arbitrary
 - Why was 30-day readmission rate chosen?
- Where do we go from here?

Common Organizational Themes In Culture of Quality

- A shared sense of purpose
 - Patient care first among missions of patient care, teaching, and research
 - Gap between current state and ideal state emphasized, rather than comparing to peers
- Leadership style
 - CEO passionate about improvement in quality, safety, and service and had hands-on style
 - CEO referred to by front-line staff by first name

Keroack et al. (2007)

Common Organizational Themes In Culture of Quality

- Accountability system for quality, safety, and service
 - Blend of central control and decentralized responsibility
 - Boards engaged in ensuring accountability
- Focusing on results
 - Sense that improvement necessary and possible, and goals set using external standards
 - Measures shared broadly in easy to understand format

Keroack et al. (2007)

Common Organizational Themes

- Collaboration
 - Multidisciplinary teams
 - Expertise and situational knowledge more important than rank or position



- *You are healers, every one, healers ashamed of miseries you did not cause. And your voice – every one – can be loud, and forceful, and confident, and your voice will be trusted.*

- *Don Berwick*

- *For Isaiah*

