Certificate Training Program Session 4

Welcome!: Before We Start

Sign-in at the back
Pick up handout packet
Sit with your CTP team at your assigned table

Curriculum Overview

KEY
Team Check-in
Inspiration
Background
Process
Improvement
Leadership
Quality/Safety
Coaching
EMR

8/20	#1	Welcome	Beginning with the En Mind	d in	Objectives Introductio	' ()vervie		Overview Leadership Defined		Leadership Defined		Team Norms	
8/27	#2	UCH Sleep	Thriving as a Leaders Imperative	hip	Value Defined	Introduction to Quality Improvement		IHQSE Model of Change		Coaching			
9/3			Coaching										
9/10	#3	CHCO Secure Chat	Investigate the Probl	em	Problem Statement	the				Stakeholder E Analysis			
9/17		Coaching											
9/24	#4	UCH Multidisciplinary Pain Clinic	Investigate the Probl	em	Understand Root Cause	_	Y I Raceline Data		Business Case			Coaching	
10/1		Coaching											
10/8	#5	UCH Neurosciences	QI vs. Research			Leading Change							
10/15					Coa	ching							
10/22	#6	DHA Antimicrobial Stewardship	Data Collection Plan				Myers Briggs						
10/28					Coa	ching							
11/12	#7	CU Medicine Dermatology	Leading Change: Vision			Understanding Business Drivers			Vegotiating f		Thi	is Place Called Academia	
11/19	#8	UCH Nursery	Leading Change: D Sense of Urgency			El in Ql				Positive Deviance			
11/26		Coaching											
12/3	#9	UCH Infectious Diseases	Hone the Intervention Identify				- I Design In			ng Wellness		eading Change uiding Coalition	
12/10	#10	DHA Clinical Informatics	Leadership Journey: Tom Gronow	Α	Aim Statement		Optimizing El Requests		St	R Storytelling		Team Logo	
12/17		Coaching											

Team Ch	ieck-in	Inspiration	Background	Process Improvement	_	Leadership (Quality/Safety	Coa		
	Team Check-in: CHCO Secure Chat		Who are my collea	Who are my colleagues?						
	Investigate the Problem		How do I understand the problem I'm trying to solve?			Customer, <u>Meet</u> with Dr. Moksha Patel, Build	4			
	Problem Statement		How do I quantify and scope the problem to solve?			Stakeholder Analysis, Develop a problem				
#3	Voice of the Customer		What does your customer/business want?			statement				
Sept. 10	Process Mapping		How do I understand the steps in my current process?			Due Oct. 22				
	EMR Process and Data		How does the EMR enable data attainment? What EMR changes do I need to make to complete my project?			Complete a Process Map				
	Stakeholde	r Analysis	Who are the key pe my project?	eople who will be impacted/impact		Due Nov. 12				
Coaching	Voice of the	e customer, process	map, problem stateme	ent						
	Team Check Multidiscipl	k-in: UCH linary Pain Clinic	Who are my collea	gues?	٥	Complete Affinity Diagram Due Dec. 3				
	Baseline Da	ita	How do I identify k	ey metrics?		Reading for next				
#4	Investigate	the Problem	How do I understar	nd the problem I'm trying to solve?		session: Kotter, John. Leading Change: Why				
Sept. 24	Understand	ding Root Causes	What tools can I us process?	e to organize information about my		Transformation Efforts Fail				
	Business Ca	ise	How do I make the work?	financial case for my improvement	۵	Complete Business Cas	e			
	Coaching					240 7707. 13				
Coaching	Baseline data, root causes, business case									
	Team Check Neuroscien		Who are my collea	gues?		Complete Myers-Briggs Assessment Due Oct. 18				
#5 Oct. 8	Leading Cha	ange	What are the comp	onents of successful change?	•	Complete literature review Due Nov. 19	✓ Reading for r session: Kott Leading Chan Transformati	er, John. <i>ige: Why</i>		
	QI vs. Resea	arch	How do I determine project?	e if my QI work is a research	٥	Complete Program Eval/QI/Research Tool Due Nov. 19	Fail			
Coaching	Literature search, QI/Research tool, voice of the customer, stakeholder analysis, process map									

Today's Objectives

- Create an understanding of and scope a problem
- Understand tools for organizing information about your current process
- Understand the financial impact of your work
- Recognize the importance of data in QI
- List sources for obtaining data
- List the tips for getting better data, more efficiently

Team Check-in: Multidisciplinary Clinic

Background & Problem

- Introductions
- Tell us about your program
- What is the problem you think you will focus on?
- Members:
 - Liz Fleagle, PsyD
 - Devin Gilhuly, MD, MS



Complex Cancer Pain Multi-Disciplinary Clinic

- Elizabeth Fleagle PsyD
- Assistant Professor
- Clinical Health Psychologist
- Medical Oncology

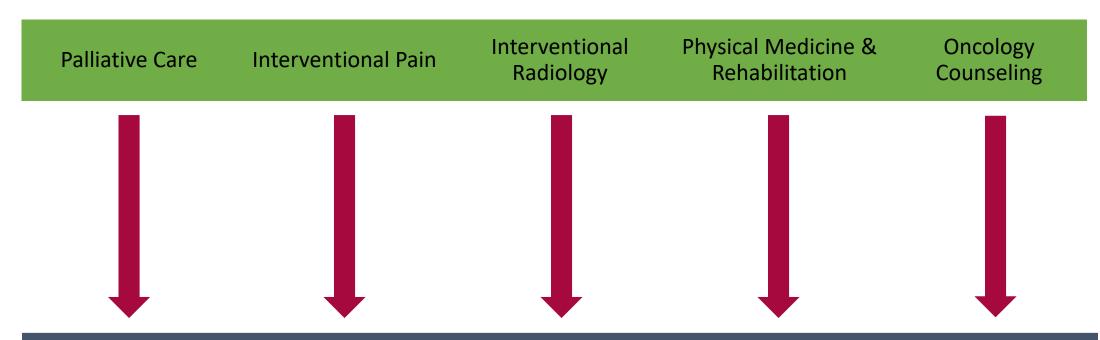
- Devin Gilhuly MD
- Assistant Professor
- Department of Medicine
- Palliative Medicine





Background

Pain is frequently reported during cancer disease – poorly controlled in 40% of patients



<u>Separate referral & coordination</u> system = coordination of comprehensive pain management is rare

Creating a Multidisciplinary Clinic for Complex Cancer Pain



Goals

- Improve patient experience & adherence to treatment
- Improve patient retention
- Reduce acute care utilization
- Reduce opiate morbidity
- Increase referrer satisfaction

Intervention

Complex pain in patients with cancer

Referral

Complex Cancer Pain

MDC

Comprehensive Pain

Control

- Referrals for patients with active solid or liquid tumors and complex pain
- Initially start with one half-day clinic biweekly
- Multispecialty team including dedicated nurse navigator and lead APP review 4-6 cases per session and implement comprehensive pain management strategy
 - Strategy might include counseling, medications, interventions, devices

Potential Impact

Optimize coordination for pain management

Reduce ED visits
and hospital
admissions for
cancer related pain

Decrease symptom
burden and
patient distress,
improve
adherence to
treatment

Improve trust in providers and our system, and improve reputation

Investigate the Problem



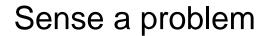
Investigate

WHAT is your problem?

WHY is it happening?

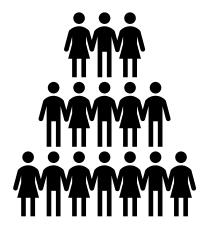
Investigate - WHAT







Describe in detail - Problem Statement



Understand stakeholders – Voice of Customer

Investigate - WHAT

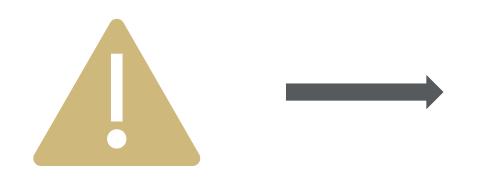


Sense a problem

Describe in detail -Problem Statement

Understand stakeholders – Voice of Customer

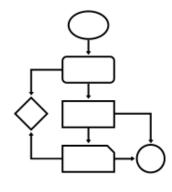
Investigate – WHY



Problem Statement



Gemba – The Place, The Walk



Process Map



Affinity Diagram

Investigate: WHY do you have a problem

- Create Problem StatementPerform Stakeholder Analysis
- ☐ Complete Voice of Customer
- □ Complete Process Map
- ☐ Complete Literature Search
- □ Create Affinity Diagram
- □ Acquire Baseline Data
- ☐ Identify Key Metrics outcome, process, structural, balancing
- Build a Business Case
- ☐ Create Aim Statement

Tool: Affinity Diagram Understanding Root Causes



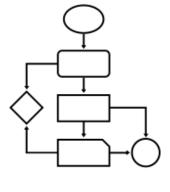
It is critical to identify the root cause(s) and not only address what lies upon the surface.











Voice of the customer

Gemba (Walk)

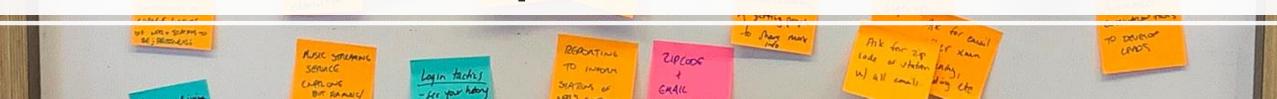
Process Map

Step 1: Brainstorm

Why is your problem happening?

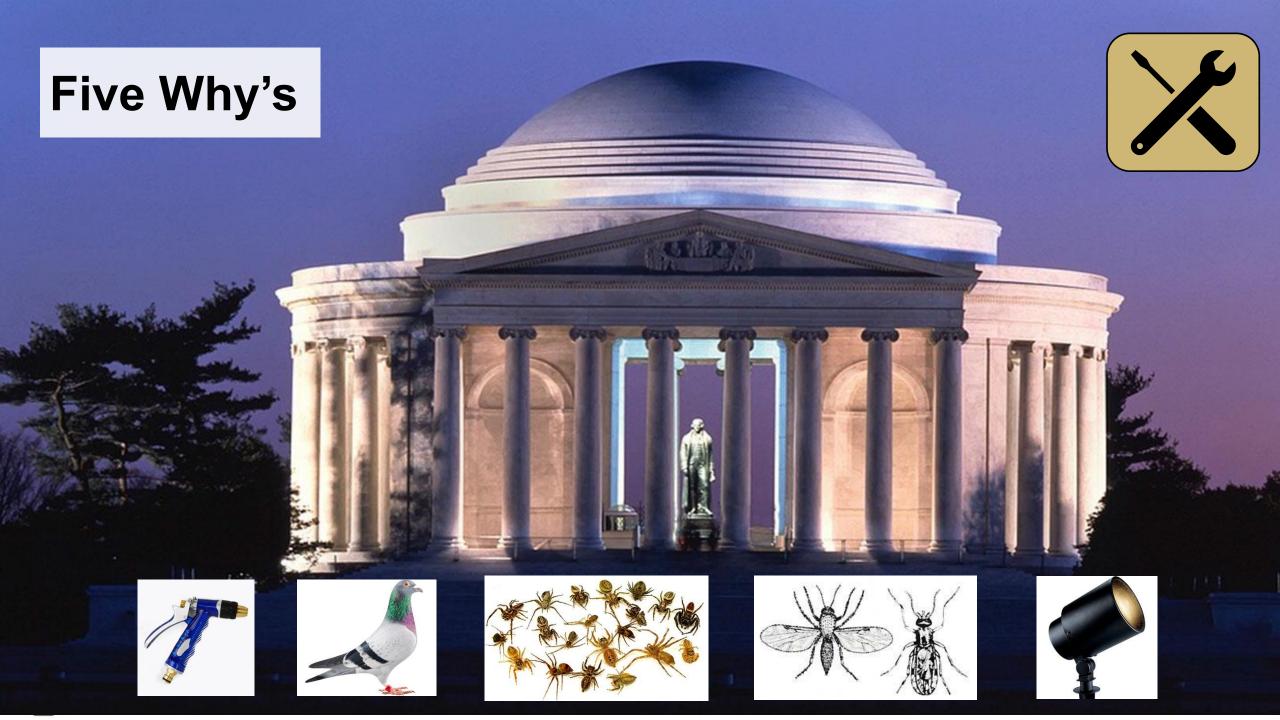


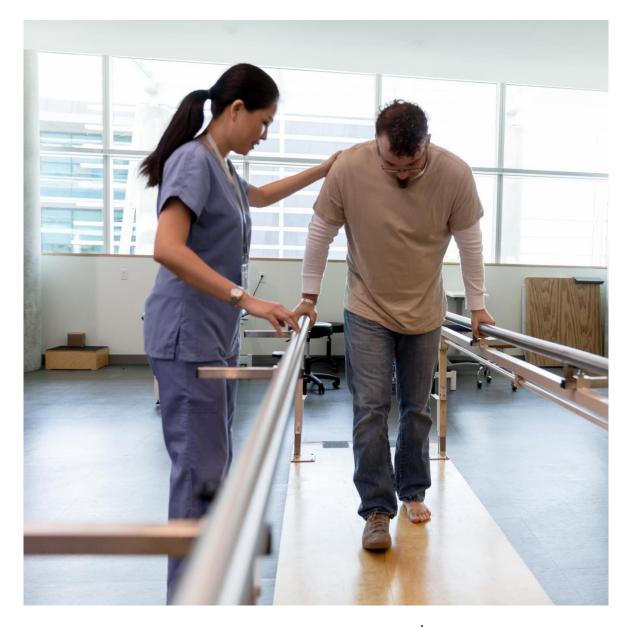
Step 1: Brainstorm



Step 2: Ask Why







37% of Physical Therapy Consults Are Inappropriate

10,000 hours of work (wasted) per year

Why do we order PT?

Reason for PT?

?????

Comments:

Add Comments

5 WHYs

Why don't providers order PT appropriately?

- They don't know what is appropriate.

Why don't they know what's appropriate?

- No list of indications within the order.
- Mobility is part of the nursing assessment.

Why don't we understand the nursing assessment?

- Different language than providers use (AMPAC).

If nurses do the assessment, and document it... why don't they order PT?

Step 3: Sort by Themes

Communication
Environment
Materials
Processes
EHR
Policies



Step 4: Vote on Top Contributors

EHR

Communication

Process

Materials Environment

Knowledge

No Indications

RN/MD/PT use Different language not discussed in discharge rounds

Busy

Don't know indications for PT

RN assessment not visible

Providers don't know this language

No geographic cohorting

No feedback loop



Step 5: Affinity Diagram



EHR

Communication

Process

Materials Environment

Knowledge

No Indications

RN/MD/PT use Different language

not discussed in discharge rounds

Busy

Don't know indications for PT

RN assessment not visible

Providers don't know this language

2

No geographic cohorting

2

No feedback loop

(

1



Next Steps...

Change the Epic Order Set; Optimize Roles to Enhance Communication!

Coaching Breakout: Contributing Factors



Consider WHY you have a problem.

Brainstorm as many causes of this problem as possible.

Put each on 1 sticky note. Ask Why.

Sort into themes / domains.

You will continue work on this as you complete prior steps in the Investigate phase (VOC, gemba, process map)

Data: Uses in QI & Finding It



SCHOOL OF MEDICINE

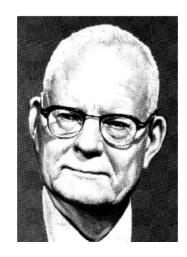
UNIVERSITY OF COLORADO ANSCHUTZ MEDICAL CAMPUS



data noun

da·ta (ˈdā-tə ◄)) (ˈda- ◄)) also (ˈdä- ◄))

factual information (such as measurements or statistics) used as a basis for reasoning, discussion, or calculation



"In God we trust. All others must bring data."

- W. Edwards Deming



"The goal is to turn data into information, and information into insight."

- Carly Fiorina, former executive, president, and chair of Hewlett-Packard Co.

Uses for Data

- Problem identification/demonstrate need or buy-in
- Understand WHY
- Reveal solutions
- Track interventions
- Visualize change

Uses for Data

- Problem identification/demonstrate need or buy-in
- Understand WHY

- REALLY understand WHY
- Reveal solutions
- Track interventions
- Visualize change

TODAY

FUTURE SESSIONS

Define the problem

Is it a problem?

How do you know?

Who is affected?

By how much?

Are there best practices to refer to?

PROVE IT.

(ahem, with data ©)





Red Blood Cell (pRBC) Transfusion Recommendations

pRBCs are most likely APPROPRIATE in the following clinical scenarios:

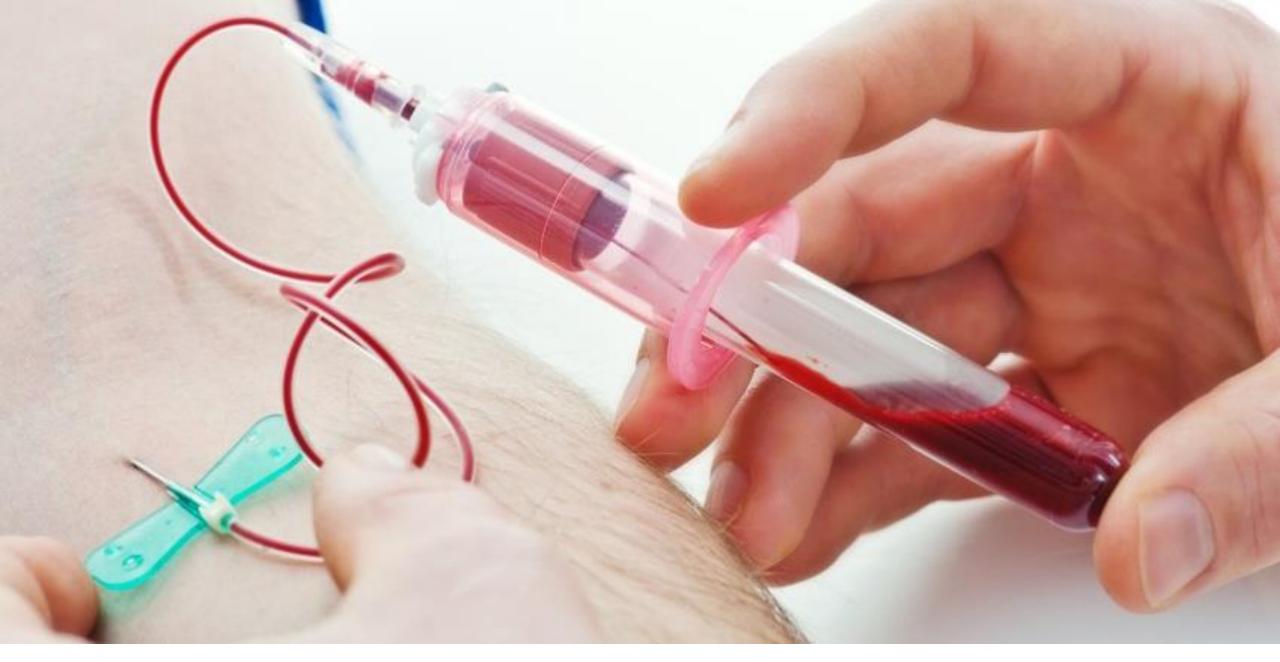
- Hgb < 7 g/dL OR Hgb < 8 with CV disease AND symptoms
- Hemodynamically unstable patient with an acute bleed
- Perioperative acute blood loss anemia with expected Hgb < 7
- Cytotoxic chemotherapy with expected Hgb < 7
- Anemia with symptoms that are intolerable without transfusion

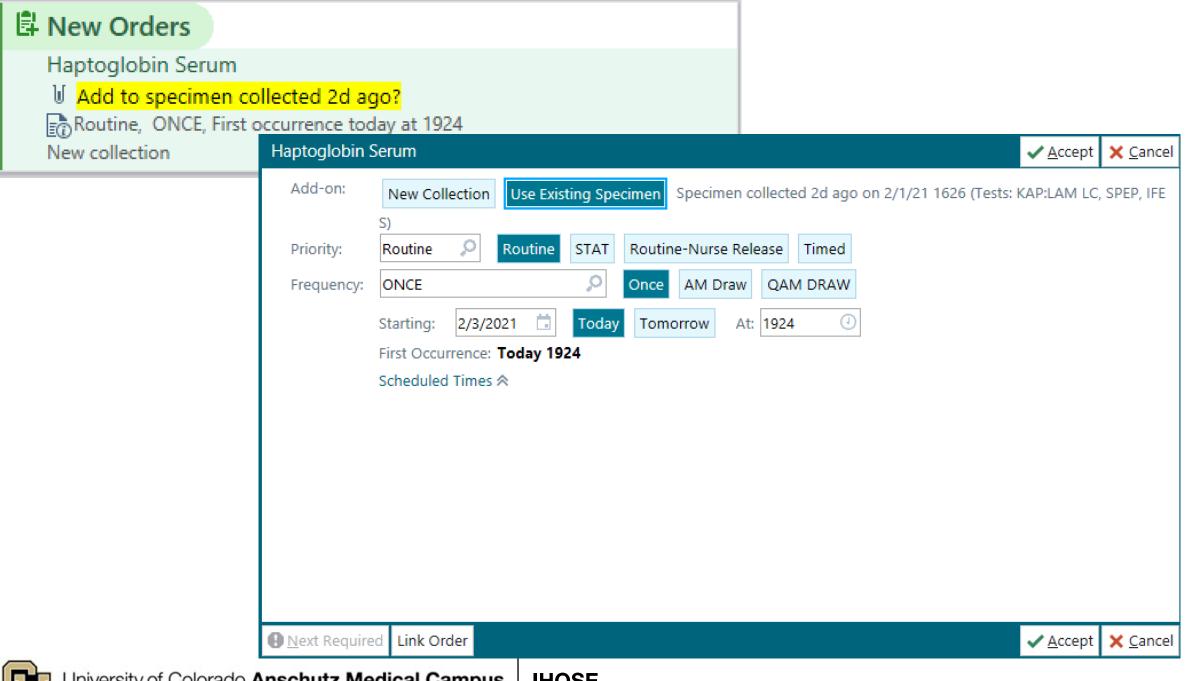
Transfuse 1 unit at a time unless Hgb <6.0 or bleeding out



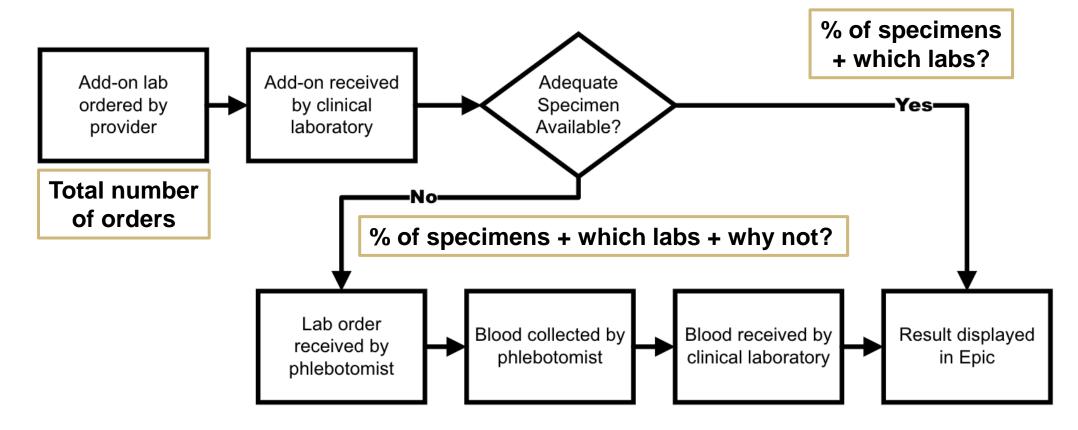
50% of non-OR, non-MTP, inpatient transfusions DO NOT meet guidelines

1783 units transfused outside guidelines x = 700/unit = 1,248,100.00

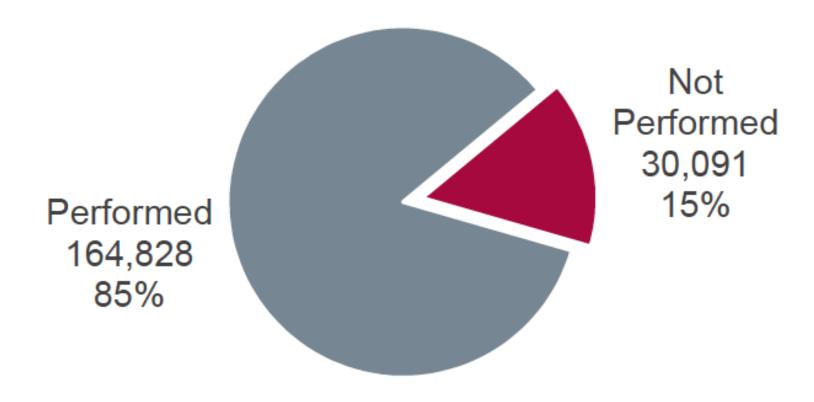








Outcome of Add-On Requests from 1/1/2018 to 9/18/2019





"Every system is perfectly designed to get the results it gets"

Paul Batalden, MD

IHI Senior Fellow

Professor Emeritus of Pediatrics, Community and Family

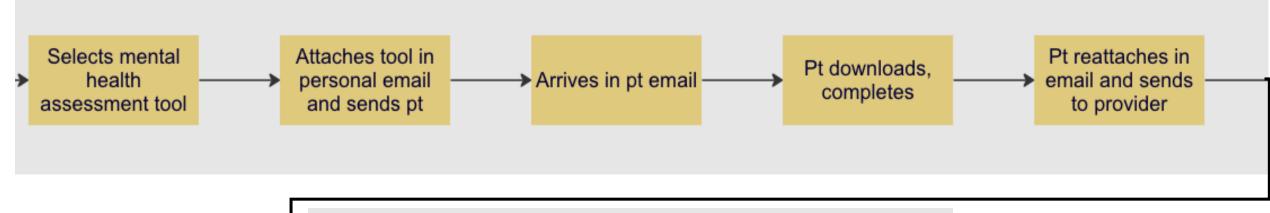
Medicine and The Dartmouth Institute for Health Policy and

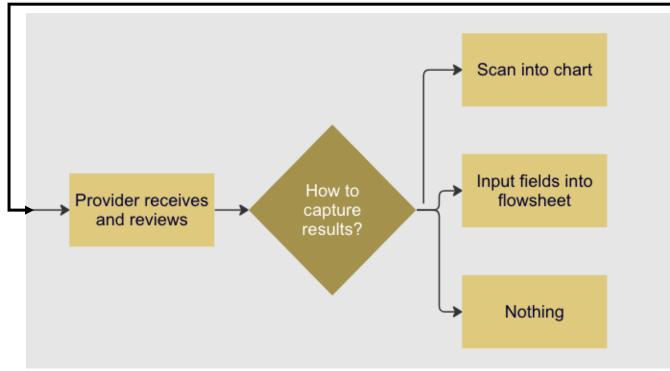
Clinical Practice

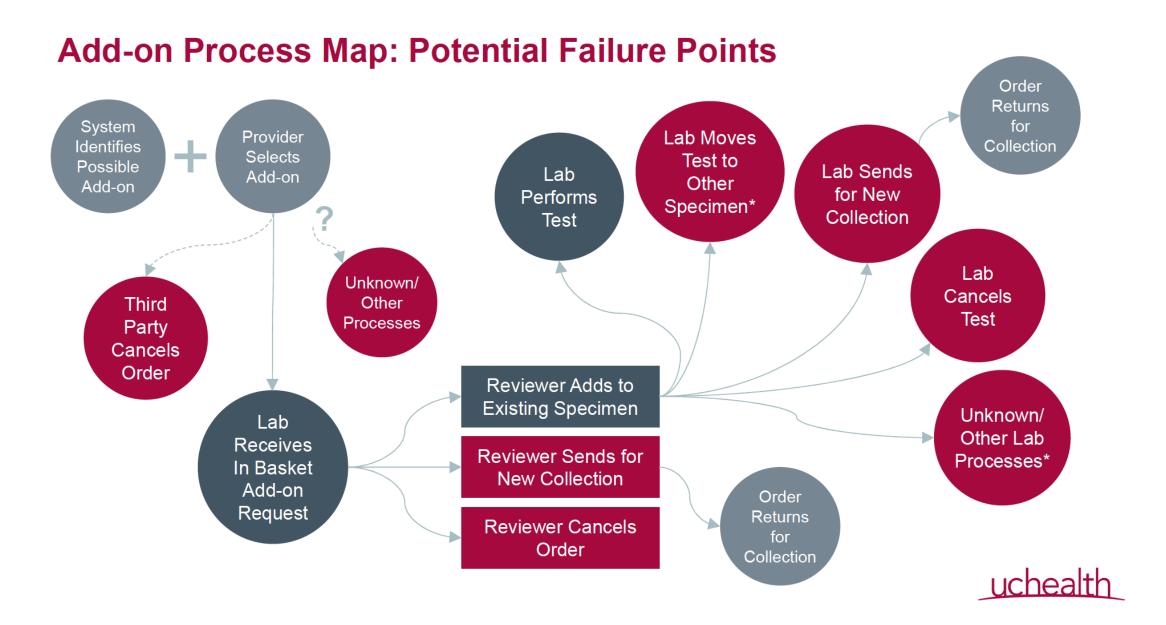
How is your system currently "designed"?

(AKA: how are your current processes leading to your observed outcomes?)

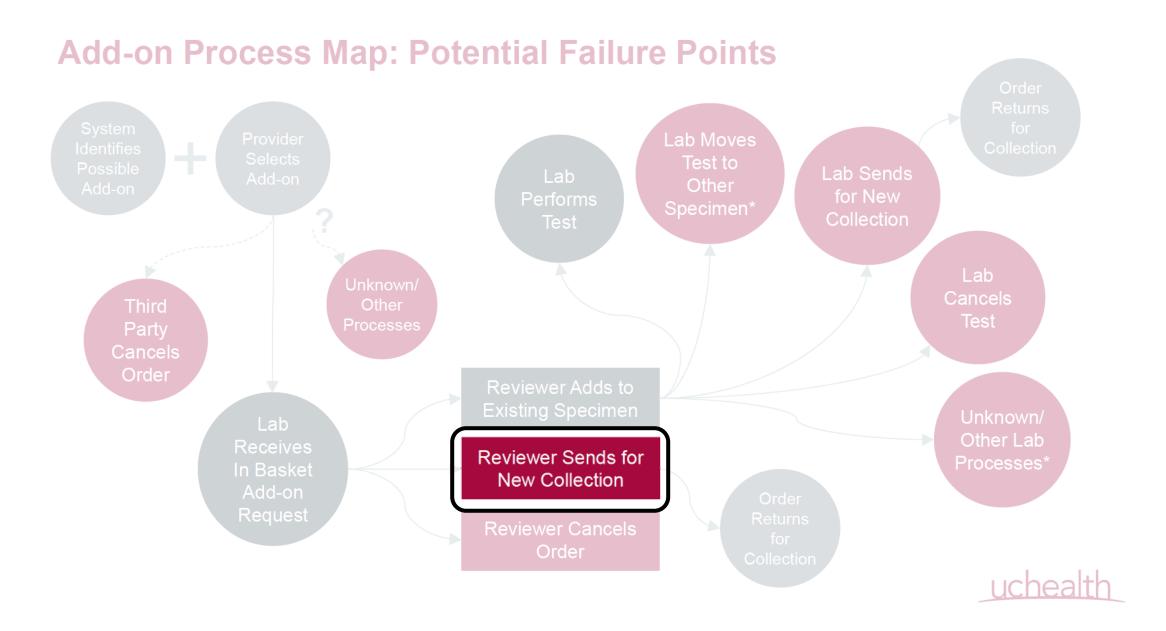






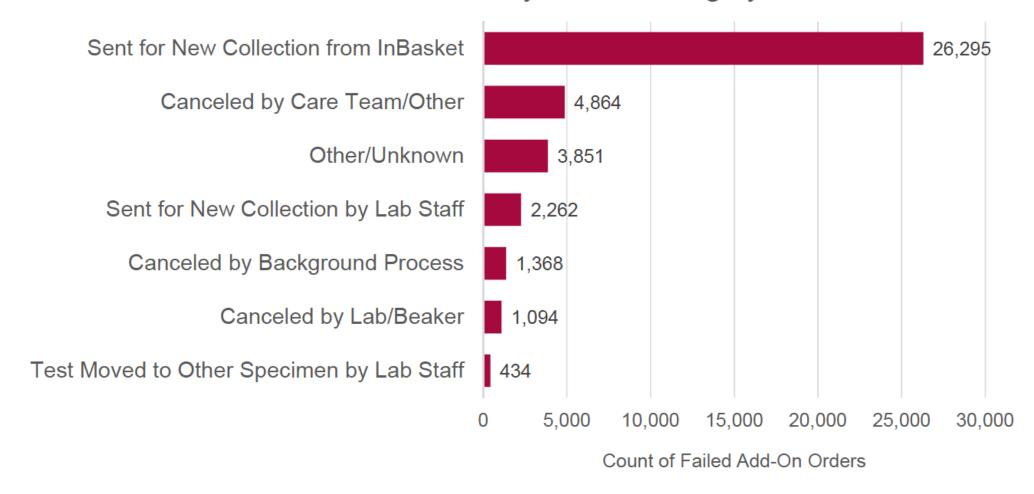






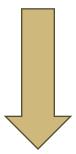


Add-On Failures by Overall Category



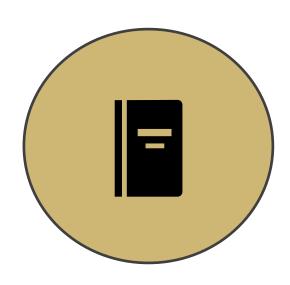
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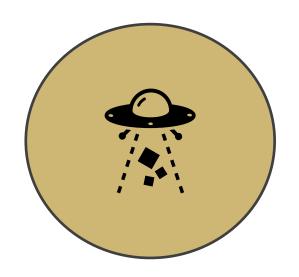


This is your baseline data

Where to find, how to find, and how to collect data.



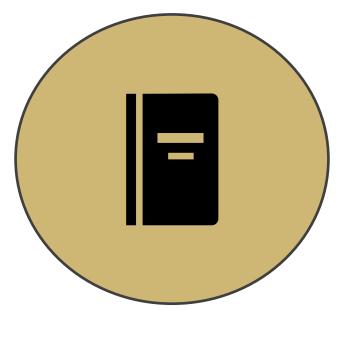
Data Sources



Data Collection



Data from Epic



Data Sources

Get it yourself	Manual Chart Review EHR reports
Division/Unit	EHR Reports Data experts National registries
Department	EHR Reports Data experts National registries
Institution	EHR Reports Data experts National rankings
State-Wide	State-death registry All-payer claims database



Get it yourself

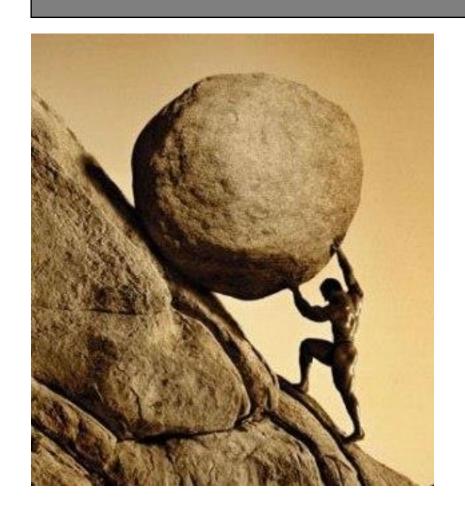


現場 Gemba



NOTE: your data may not presently exist!

Get it yourself





Manual chart review is ONLY for identifying data sources and validation.

Division/Unit

Department







STS/ACC TVT Registry



Institution

vizient



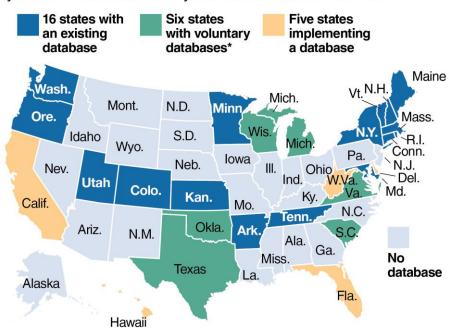


State-Wide

State-death registry All-payer claims database

State of databases

All-payer claims databases have yet to catch on at the state level



Notes: California also has a voluntary database. West Virginia's implementation is currently on hold.

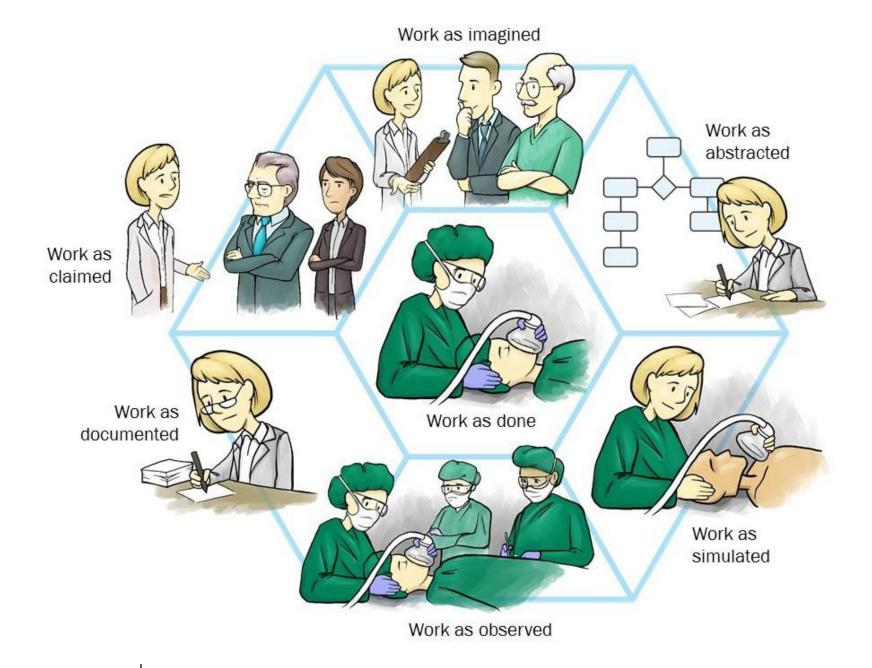
* States where submissions are voluntary or the datase is maintained through voluntary effort

Source: APCD Council interactive state report map

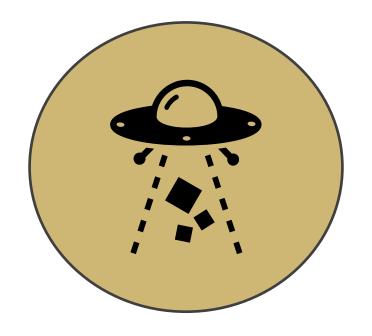




Be clear about what you are measuring!







Data Collection

Conceptual vs Operational definitions

- Conceptual is what you are going to measure
- Operational is how

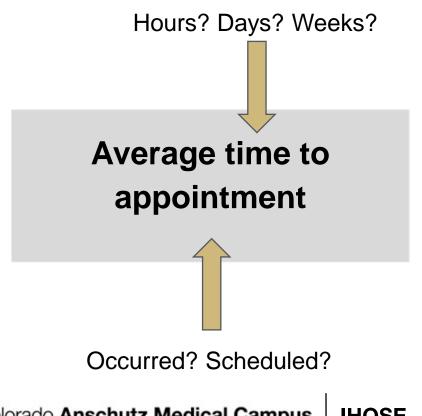
Average time to appointment

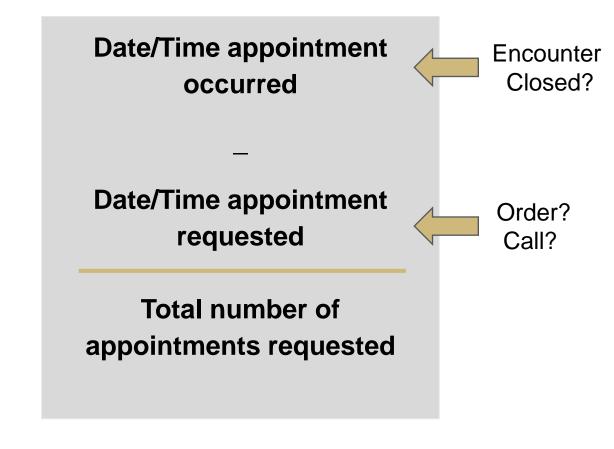
Date/Time appointment occurred

Date/Time appointment requested

Total number of appointments requested

Conceptual vs Operational definitions







Conceptual vs Operational definitions

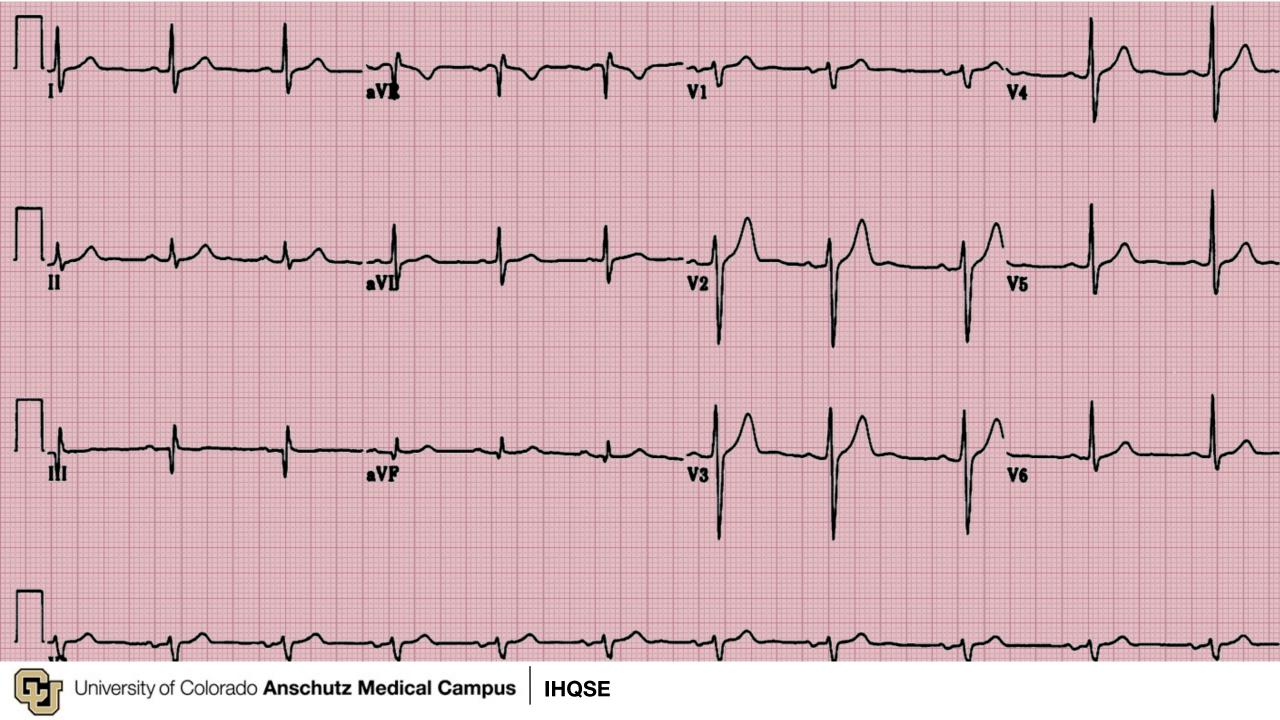
Daily order of CBCs and BMPs on inpatients ordered by day team residents

Number of CBCs

+

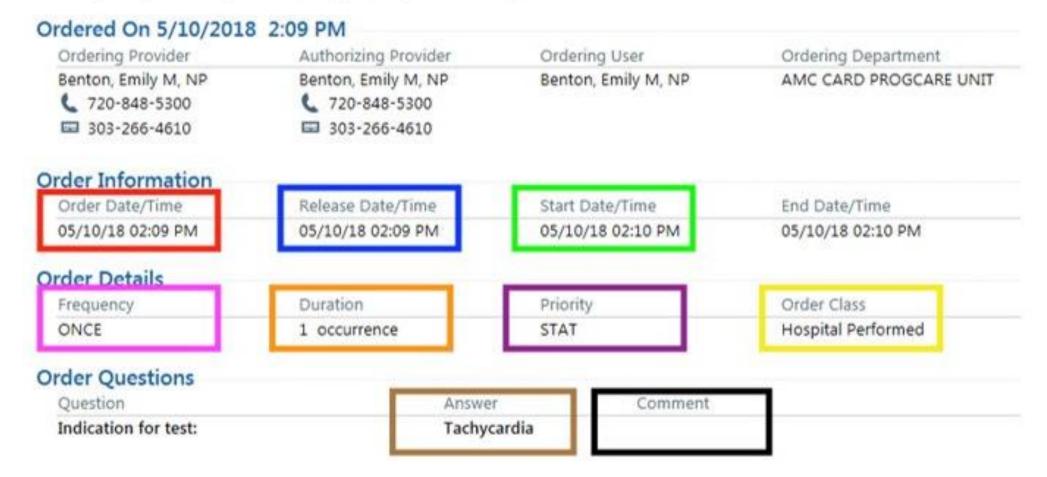
Number BMPs on inpatients ordered by day team residents between 1200am – 1159pm

Total medicine team census per day



ECG (Electrocardiogram) 12 Lead (Order 397966448)

Date and Time: 5/10/2018 2:09 PM Department: UCHealth Heart and Vascular Care - Anschutz Medical Campus Ordering User/Authorizing: Benton, Emily M, NP (auto-released)





"Happiness is there when expectations meet the reality."

Dr. Debasish Mridha, MD











Data Collection

Data Analysis

Data Interpretation

These are different steps and often done by different people. Know the role and capabilities of the person you are speaking with.

Create a data dictionary

- Repository of all your data points
- Provides a detailed description of each data point including:
 - Definition
 - Source
 - Other notes
- Built over-time as you get more data
- Especially helpful for EHR data

Key Question	Data Element Name	Operational Definition	Parameters	Source	Who	Frequency
What is the length of stay?	Length of stay (LOS)	LOS = Admit time to Discharge time	• Date range: 1/1/2020 - 12/31/2020 • One listed for every patient by CSN • Format: time in hours	EHR ADT	Which team member is in charge of collecting?	Monthly data pull, 1st of month

Data Organization



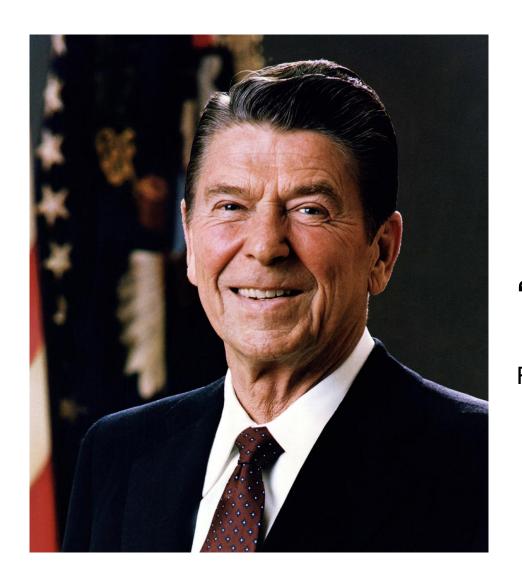


- 1. ORGANIZE by columns
- 2. DON'T use color coding
- 3. Set up BEFORE you start collecting data

Build out shells for your data BEFORE you collect AND analyze it.

Characteristic	исн	Non-UCH Metro	North	South	All sites Combined
Transfusion order					
date/time					
Pre-transfusion order Hgb					
level					
Number of units ordered to be transfused					
Indication for transfusion selected					

	Non-Alert	Alert		
Characteristic		Arm 2	Arm 3	
Citaracteristic	Arm 1	(non-interruptive)	(interruptive)	
Age_in_Years				
Sex				
Female				
Male				
missing				
Race				
American Indian or Alaska Native				
Asian				
Black or African American				
Native Hawaiian and				
Other Pacific Islander				
White or Caucasian				
Other				
More than one race				
Ethnicity				
Hispanic, Latino/a, or				
Spanish Origin				
Non-Hispanic				
missing				
Language				
English				
Spanish				
Other				
Financial_Classification				
Commercial				
Indigent Care				
Medicaid				
Medicare				
Other				
Self-Pay				



"Doveryai, no proveryai." (Trust, but verify)

Ronald Reagan, United States President 1981 – 1989



"A minimum put to good use is enough for anything."

Jules Verne, Around the World in Eighty Days

Coaching Breakout: Baseline Data

What data do you...

- Have?
- Need?
- Want?

Where will you get it?



10 min

Business Case

How to Show Your Value (and get what you need)





Justifies resources—all work requires resources; why here?

What?



Provides the 'why' to your project charter's 'what/how'



Aim for financial return on investment (ROI)



State the value of the work

Data needed to show value

Why?



Allows for prioritization vs. other initiatives



Creates implicit 'IOU' and accountability

How?



Step 1: What are you trying to do?

Step 2: What is the benefit?

Step 3: How do I show the benefit?

Step 4: What data do I need?

Step 1: What are you trying to do?

What are you trying to do?

- Short
- Or, very short
- No, really, it needs to be short
- Like, 1 line. Maybe 2 if you have 2 goals.

Examples

- Reduce hospital length of stay by 0.5 days
- Reduce time from check-in to drug by 72 minutes
- Reduce the rate of harm by 15%
- Increase patient volume by 10%

Similar to AIM statement

Step 2: What is the benefit?

Now that you know what you are doing Why are you doing it? Why would anyone care?

Example: Reduce LOS by 0.5 days

- Improves flow through hospital; opens beds
- Reduces costs for a fixed DRG payment
- Allows for new patients to be placed in beds
- Patients go home earlier (most view positively!)
- Lower risk of iatrogenesis

Similar to VOC/VOB

Coaching Breakout:



What are you trying to do?

- Start with your problem
- Distill to one short statement
- Discuss and Refine
- Be specific...and short

What are the benefits?

- List as many as you can
- Be specific
 - What is the benefit?
 - Who does it benefit?

15 minutes

Step 3: How would I show the benefit?

LOS Reduction Benefit = $[(B+C) \times D] \times A$

A = Reduction in LOS

Baseline LOS – goal LOS = reduction in LOS

B = Cost savings

- Each day saved results in less cost/DRG
- How much? ~\$500-1000 cost savings/day

C = Revenue generated

- Each day saved results in another open bed
- New pt averages ~\$500-1000 revenue/day

D = Number of patients seen per year

Benefit = $[(\$750 + \$750) \times 1291] \times 0.5 = \$968,250$

Step 4: What data do I need?

What you'll need to understand opportunity and measure success:

- LOS
 - Baseline
 - Goal
 - Current (after commence)
- Cost/day of your patient
- Revenue/day of 'average' patient
- Number of patients you see annually

Coaching Breakout:



How would I convey the benefit?

- Warning! Requires math
- More about methodology than accuracy
 - Just get the equations down
 - Estimate as needed
- Simple enough to convey the point

What data do I need?

- Financial, operational, workflow, harm
- You need to be very specific on your need and where it exists
- If it doesn't exist (or is hard to get) the PI/DA/EMR cannot get it

15 minutes





Example: Batting Cage

- What are you trying to do?
 - Install batting cage in yard by September 1, 2023
- What is the benefit?

Mom filled with pride when do well Mom can send videos to grandparents Dad able to reduce chance of injuries Scholarship reduces cost of college



3 How will you convey benefit?

Cost of Stanford education per year \$74,570

Years of college

Total benefit of scholarship \$298,280

Cost of batting cage \$4,800

• Cost of installation \$2,500

Cost of pitching machine \$2,700

Total cost of project \$10,000

• ROI = Benefit-Cost
$$$298,280 - $10,000 = 28.8$$

Cost $$10,000$



What data points would you need?

Annual cost of tuition at Stanford

Cost of batting cage

Installation cost

Cost of pitching machine

Example: Infusion Center

- What are you trying to do?
 - Reduce time from check-in to completed drug by 72 minutes
- What is the benefit?

Patient's happier
Staff happier—less down time
Timely access—open more chair time
More patients for same amount of staff



3 How will you convey benefit?

Number of patients per month: 107

Current time needed per patient: 272 minutes

Goal time needed per patient: 200 minutes

Average Reimbursement for patient: \$1585

Baseline # of mins of patient care / month = 29,104 mins (107 x 272 mins)

3 How will you convey benefit?

Goal # of mins of patient care / month = 21,400 minutes (107 x 200 mins)

Goal minutes saved / month = 7,704 minutes (29,104-21,400 mins)

Potential new encounters / month = 38 (7,704 mins saved/200 mins/pt)

Potential increase in reimbursement = \$60,230 (38 pts/mo x \$1585)

Potential increase in reimbursement per year = \$722,760 (\$60,230/mo x 12)

What data points would you need?

- Baseline time from check in to completion
- Current time from check in to completion
- Goal time from check in to completion
- Baseline number of patients per month
- Contribution margin per case

Data
Collection Plan

Next Steps

Dear Executive Stakeholder,

I plan to make you \$700k next year.

To do this, I will need 20% of support from a QI specialist, roughly \$30K.

Your ROI will be 23:1.

Thanks!



Future Action Item: Create a Business Case



Step 1: What are you trying to do?

Step 2: What is the benefit?

Step 3: How will you show this benefit?

Step 4: What data points do you need?

Complete in Coaching Session

Appreciative Debrief

Share with the group 1 thing you found most intriguing from this session

Next Steps

Due - Session 5 Oct. 8, 2024

 Read: Kotter, John. Leading Change: Why Transformation Efforts Fail

Due - Session 6 Oct. 22, 2024

 VoC, Stakeholder Analysis, Problem Statement, Meet with Moksha (if needed)

Due - Session 7 Nov.12, 2024

Process Map

Due - Session 8 Nov. 19, 2024

Draft Business Case

Due - Session 9 Dec. 3, 2024

Complete affinity diagram

Date Assigned	Assignment	Due Date
#1 – Aug. 20, 2024	 Develop group ground rules Complete Leadership Defined Self-assessment 	Review in coaching
#2 – Aug. 27, 2024	No new assignments	
#3 – Sept. 10, 2024	 Complete voice of customer Build stakeholder analysis Develop a problem statement Meet with Dr. Moksha Patel 	#6 – Oct. 22, 2024
	Complete a process map	#7 – Nov. 12, 2024
#4 – Sept. 24, 2024	Reading: Kotter, John. Leading Change: Why Transformation Efforts Fail	#5 – Oct. 8, 2024
	Draft business case	#8 – Nov. 19, 2024
	Complete affinity diagram	#9 – Dec. 3, 2024
#5 – Oct. 8, 2024	Complete Myers-Briggs Assessment	Friday, Oct. 18, 2024
	Complete literature review Complete Program Evaluation/QI/Research Tool	#8 – Nov. 19
#6 – Oct. 22, 2024	Complete data collection plan	#9 – Dec. 3, 2024
#7 – Nov. 12, 2024	Develop/utilize current vision tying to project	#8 – Nov. 19, 2024
#8 – Nov. 19, 2024	Finalize sense of urgency	#9 – Dec. 3, 2024
	DEI Scan Complete Positive Deviance Exercise	#12 – Jan. 28, 2025
#9 – Dec. 3, 2024	 Complete Design Thinking Exercise Develop list of potential interventions Finalize guiding coalition 	#12 – Jan. 28, 2025
#10 – Dec. 10, 2024	Complete aim statement	#11 – Jan. 14, 2025
	Finalize logo	#13 – Feb. 11, 2025
#11 – Jan. 14, 2025	Draft mid-year report out	#12 – Jan. 28, 2025
	 Complete pre-mortem assessment Create and implement a communication plan 	#13 – Feb. 11, 2025



