



Effective Ways Your Lab Can Engage Clinicians to Improve Patient Care, Use Lab Tests More Effectively, and Create Effective Clinical Teams

Tuesday, October 18th, 2016
8:00 am-8:50 am

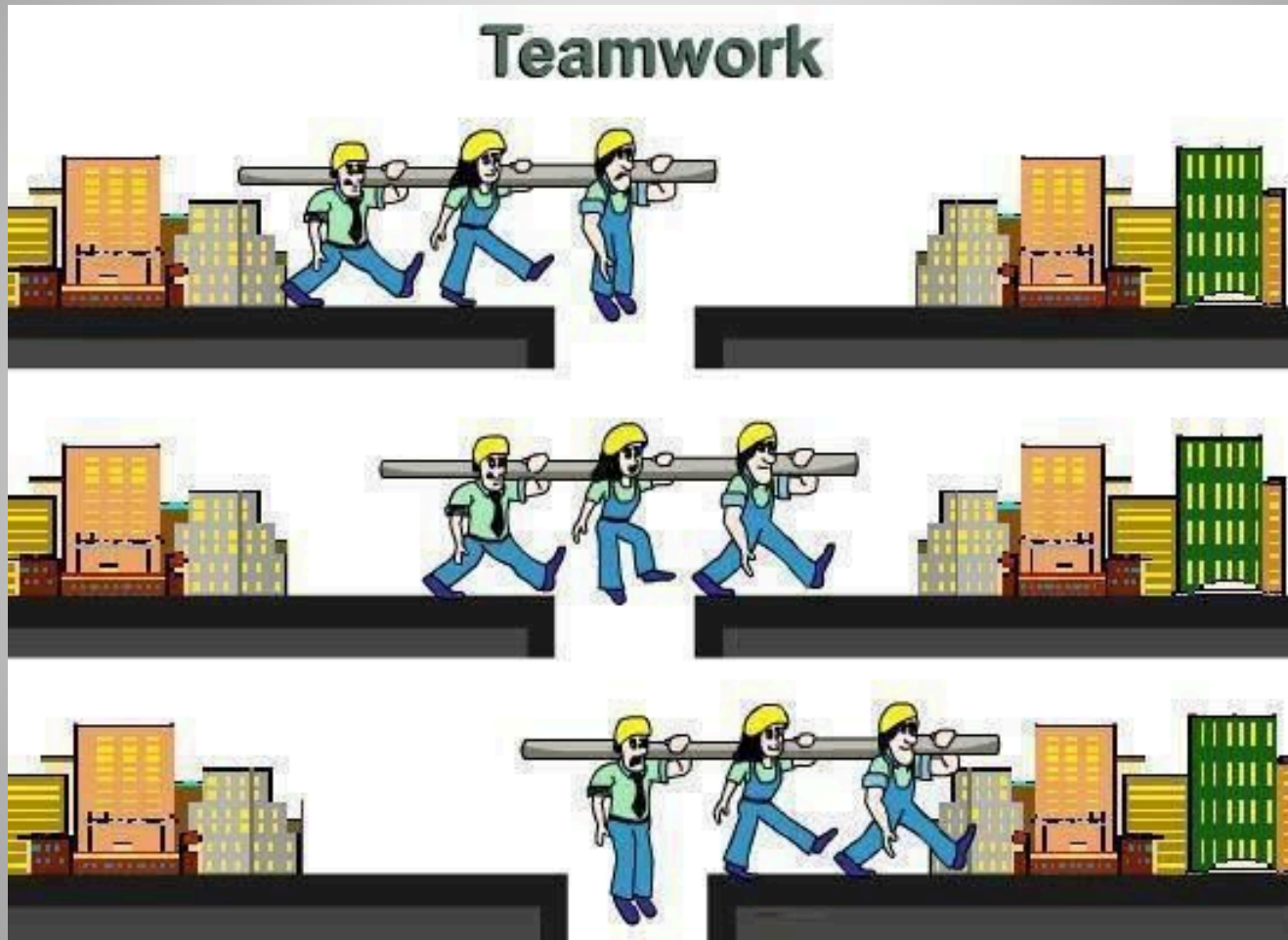


Dr. Gaurav Sharma

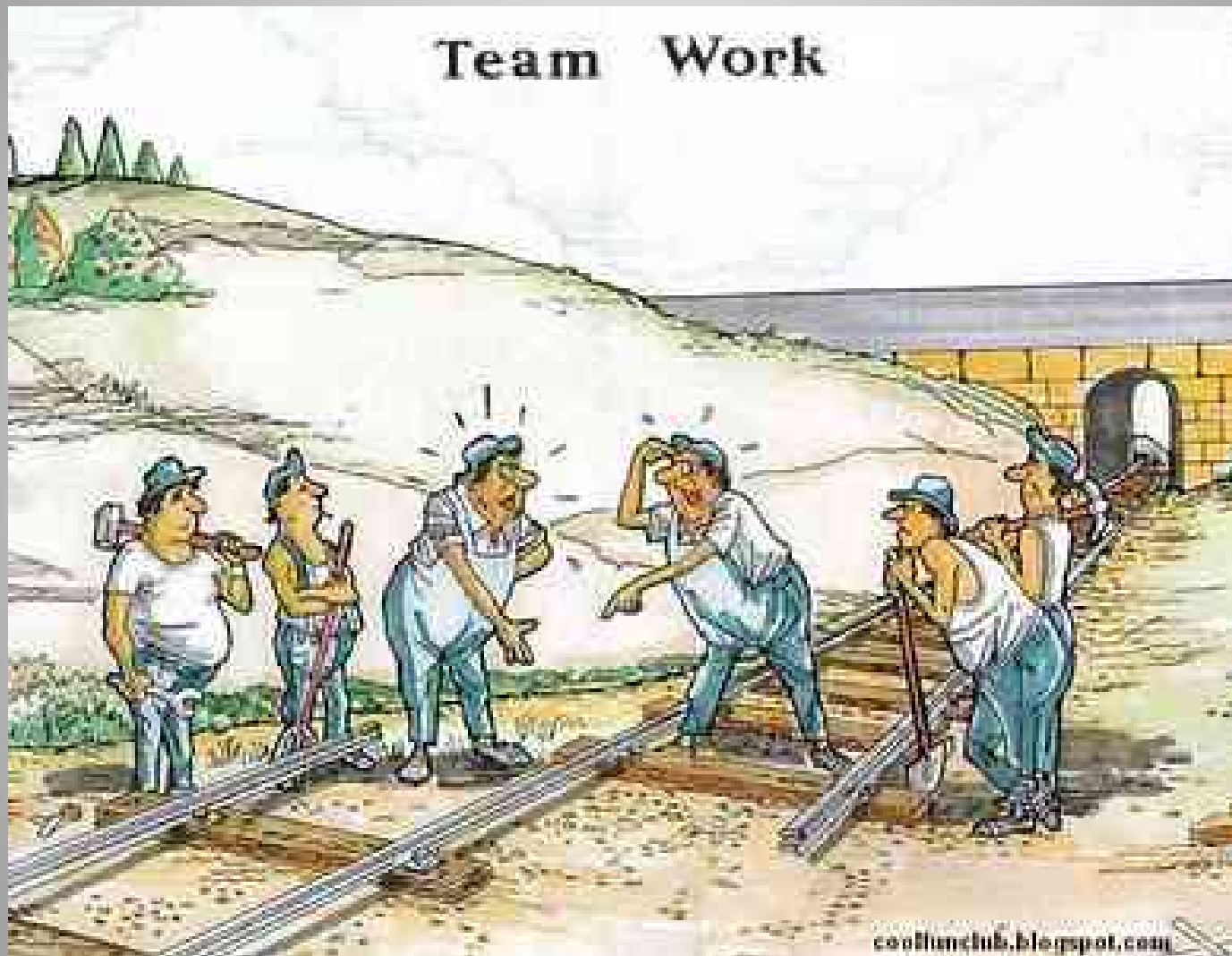
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Laboratory Quality Confab 2016
New Orleans, LA

The IDEA of Teamwork

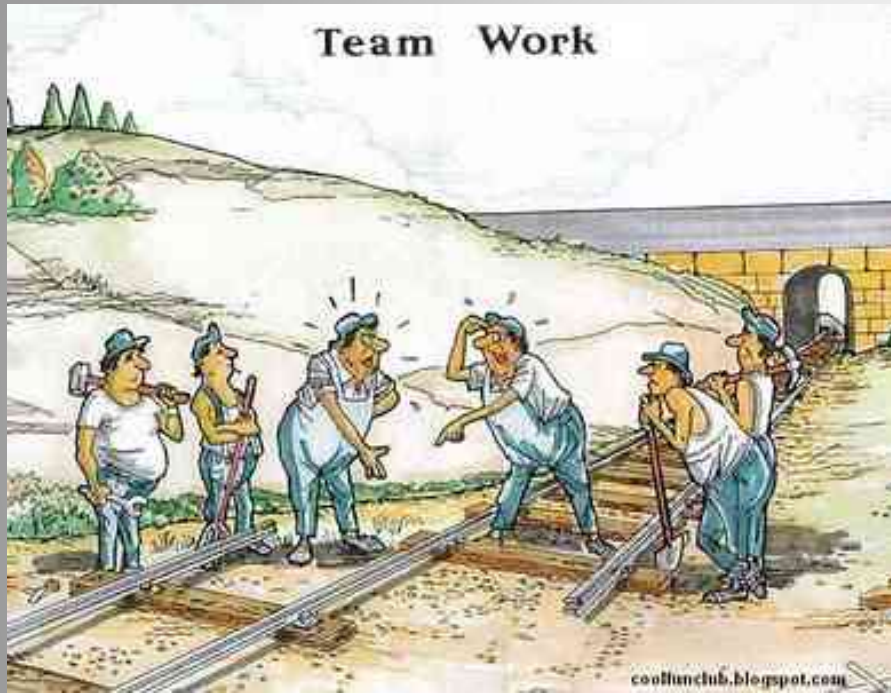


The REALITY of Teamwork

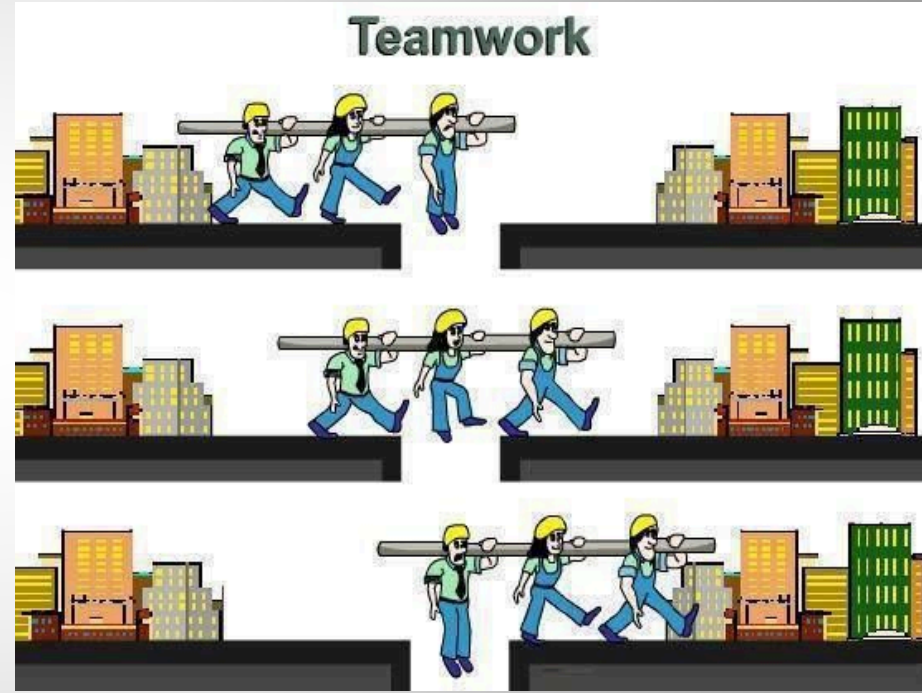


What's your experience?

Team Work



Teamwork



Objectives (a.k.a.-Why are you here?)

Define the challenges of designing and deploying a multidisciplinary laboratory utilization framework, especially related to comprehending the needs of clinical peers.

<https://www.youtube.com/watch?v=sGUNPMPrxvA> **Improve** the perceived 'value' of pathologists and medical technologists as active members of multi-disciplinary and multi-skilled teams working on patient-centric and provider-supportive solutions.

(a.k.a. How to showcase your role)

Recognize and mitigate the challenge in communication and potential conflicts that arise when complex problems need to be solved, and team consensus must be arrived at.

(a.k.a. How to stay out of trouble)

Who we are



- Integrated Health System located in Southeastern Michigan with 4+ hospitals (1400+beds) and 40+ ambulatory care facilities
- Baldrige Quality Award Recipient
- Henry Ford Medical Group has more than 1200 employed physicians
- Pathology & Laboratory Medicine is the system wide product line
 - 12 million + tests
 - 30+ M.D. and Ph.D. Staff
 - 700 + employees
- The largest integrated network of laboratories in the US with ISO15189 accreditation and the only one in Michigan

Section 1

Define the challenges of designing and deploying a multidisciplinary laboratory utilization framework, especially related to comprehending the needs of clinical peers.

(a.k.a. why is it so difficult?)

What laboratorians think



How clinicians (often) see us...

Did they cancel
my lab again?

Not patient
focused

Insufficient????
I'll show you
insufficient!

Difficult to
contact the lab..



Don't
understand
technology..

Difficult to
collaborate...

Resistance to
change ...

Why don't you
come to the room
and tell the patient
why you aren't
running this lab?

How the Clinicians see themselves... !

Slide from Dr. Ilan Rubinfeld, Assoc. CMO, HF Hospital

Each day is like the Lord of the Rings, or Star wars... I am on an holy quest to save my patient

Lab is not going to tell me how to practice medicine

Your little microscope is cute, but I operate with a robot

As a doc, I face the patient and their families in this consumer oriented nightmare we call modern healthcare



You guys are a liability, when we get into bundled care I don't even want you in the room

I take the Hit each and every time the Lab, Pharmacy, or Radiology don't do what I tell them...

Healthcare delivery is a system of closely situated but functionally separate silos



Laboratory

SILLO



Providers



Challenge #1

Assumptions, Tales and Legends!

Laboratory



ASCERTAINMENT BIAS

*Thinking and actions are shaped by pre-existent notions or bias
a.k.a. 'stereotyping'*

CONFIRMATION BIAS

*Tendency to look for or give weight to information that supports a pre-existing bias rather than information that now disapproves it
a.k.a. 'cherry-picking'*

PRE-MATURE CLOSURE

*Tendency to find the minimum amount of information (sometimes zero) to come to a conclusion about the cause (usually a person)
a.k.a. 'finger pointing'*

Providers



Challenge #2

Driving in the Dark!



Laboratory

LIMITED KNOWLEDGE OF WHAT THE CUSTOMER WANTS!

*a.k.a. 'we/they are too busy to meet
OR we know what they want'*

LIMITED KNOWLEDGE OF HOW THE CUSTOMER/OR YOU FUNCTION!

a.k.a. 'that is their problem!'

Providers



The Challenges



Laboratory

Pre-existing Bias

Ineffective communications

Reactive problem solving

Lack of trust

Providers



HIGH Quality is THE future



**Quality and Value-based
Payment and Models**

Pay for Performance Programs at HFHS

Dollars at Risk > \$50M

- CMS Pay for Performance \$13.6M
 - Value Based Purchasing (Core Measures, Patient Satisfaction, Outcomes, Spend per beneficiary)
 - Readmissions
 - Hospital Acquired Conditions (CLABSI, CAUTI, complications)
- BCBS - Hospital Bonus \$ 12.0M
- BCBS Doctor Group Bonus \$4.2M
- MiPCT \$4.3M for Primary Care
- Health Information Technology 2011 to 2013 = \$58M
- 30 Certification Programs (P2P) and Select Networks



Section 2

Improve the perceived 'value' of pathologists and medical technologists as active members of multi-disciplinary and multi-skilled teams working on patient-centric and provider-supportive solutions.

(How to showcase your role?)

Where do we demonstrate value?



Laboratory Cost

Healthcare Cost



Where do we demonstrate value?



THIS IS WHAT WE CONTROL

THIS IS WHAT WE IMPACT



Lab testing --> Hospital quality metrics

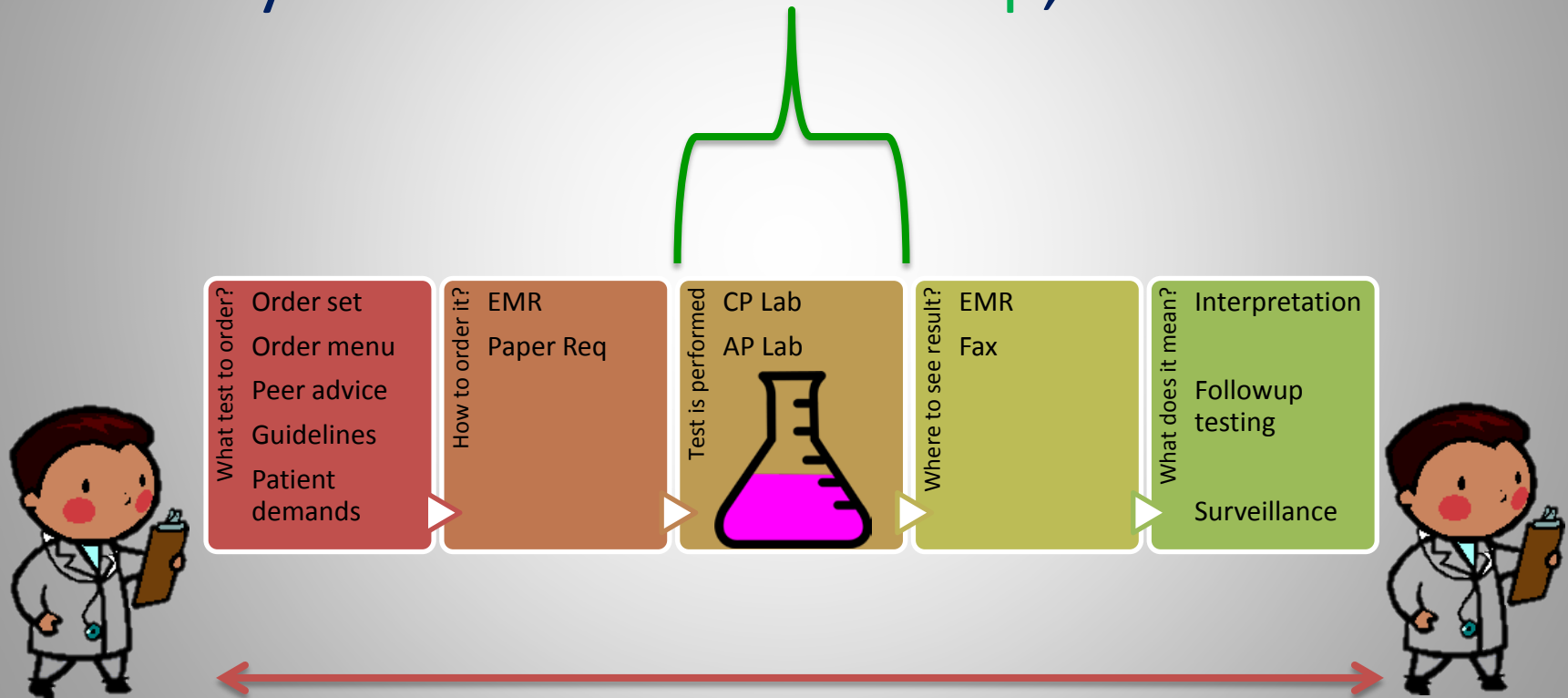
- Median time from ED arrival to ED departure
- Diagnosis of
 - Central line associate bloodstream infection
 - Catheter associated urinary tract infection
 - Methicillin resistant Staph aureus bacteremia
 - Clostridium difficile infection
- Blood cultures performed within 24 hours prior to or 24 hours after hospital arrival; in ED prior to first antibiotic received
- Screening for cervical and colorectal cancers
- Comprehensive diabetes mgmt (HbA1c)

Lab testing --> Choosing Wisely

- Don't routinely measure 1,25 dihydroxy vit D
- Don't perform 25-hydroxy vit D population screen
- Don't perform unproven diagnostic tests for allergy
- Don't perform low risk HPV testing
- Don't routinely screen for prostate CA with PSA
- Don't test for thrombophilia in adult patients with VTE occurring in setting of major transient risk
- Don't perform repetitive CBC and chemistry testing in setting of clinical and lab stability

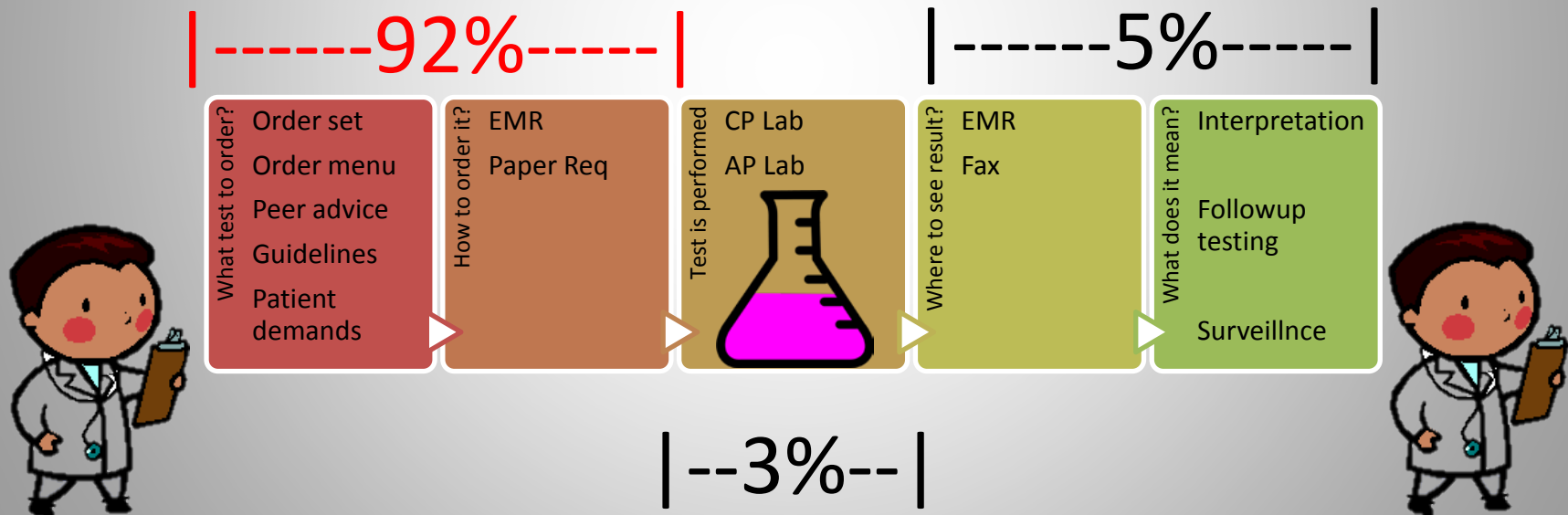
Value Chain

In the entire **order-test-reporting cycle**, laboratories can only control the **central step**, rest is outside..



Value Chain

Vast majority of defects occur outside
the central analytical step

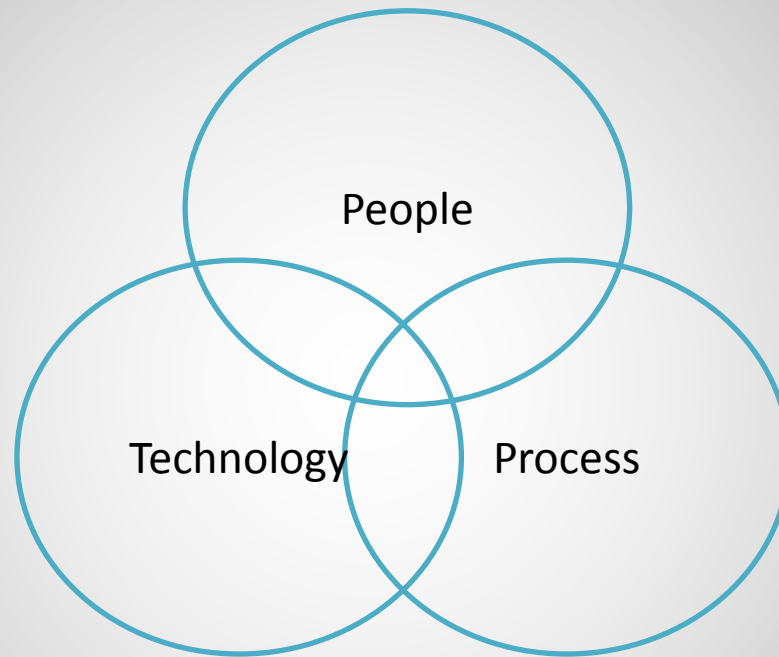


Section 3

Recognize and mitigate the challenge in communication and potential conflicts that arise when complex problems need to be solved, and team consensus must be arrived at.

(How to stay out of trouble?)

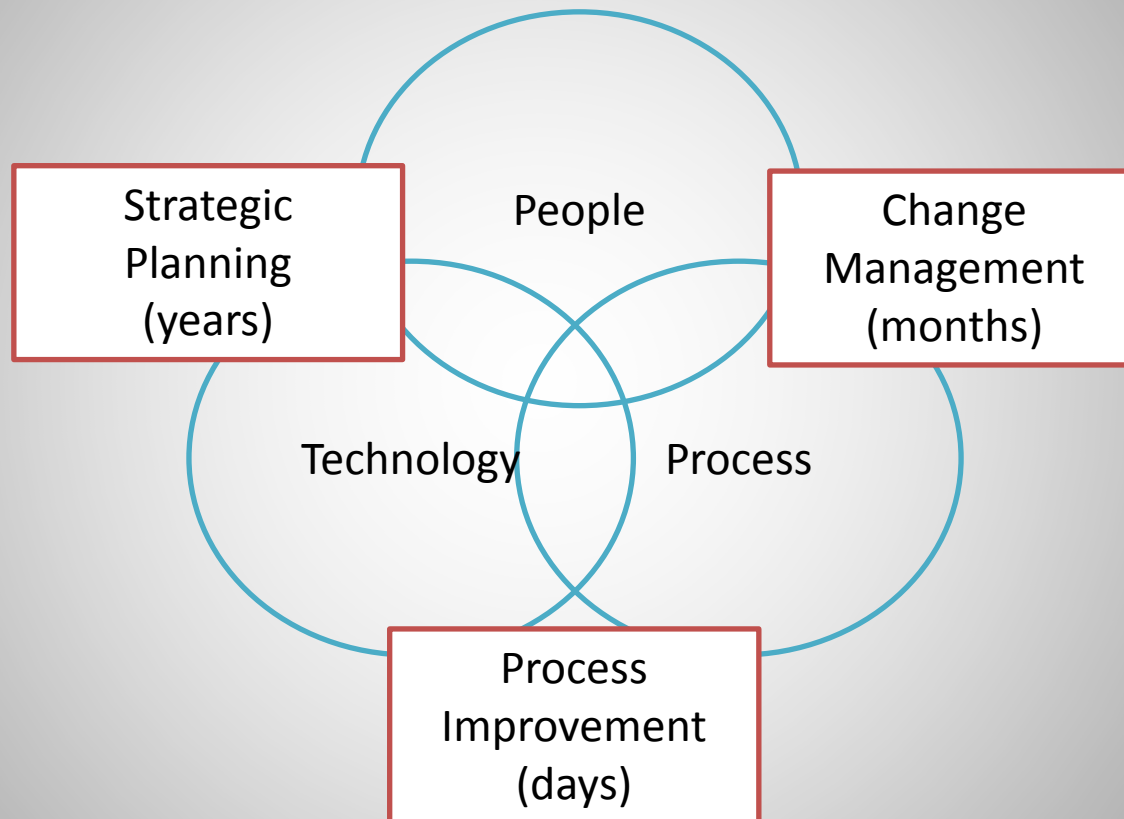
How work is actually DONE



FickenscherK, BakermanM. Physician Exec. 2011 Jan-Feb;37(1):73.

Trastek VF, et al. Mayo ClinProceed. 2014;89(3):374-381

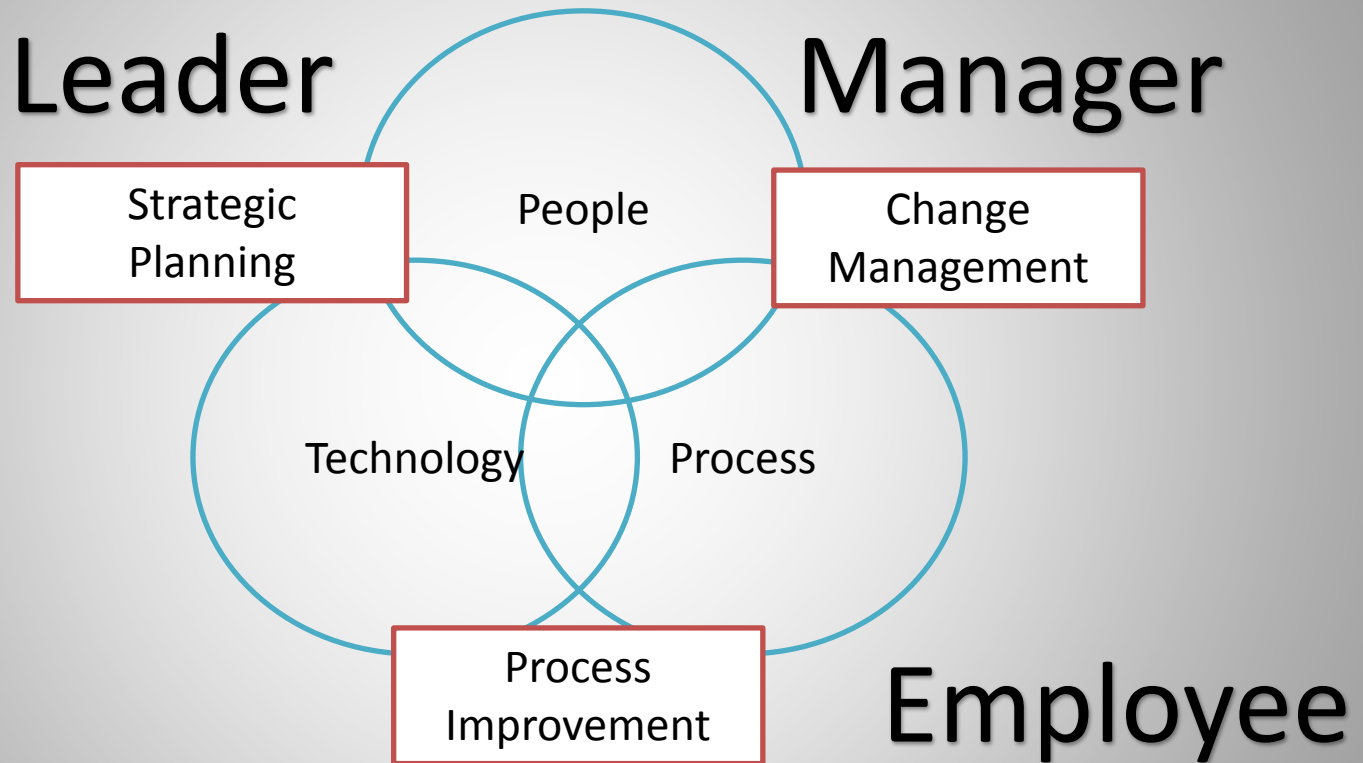
Activities towards work's IMPROVEMENT



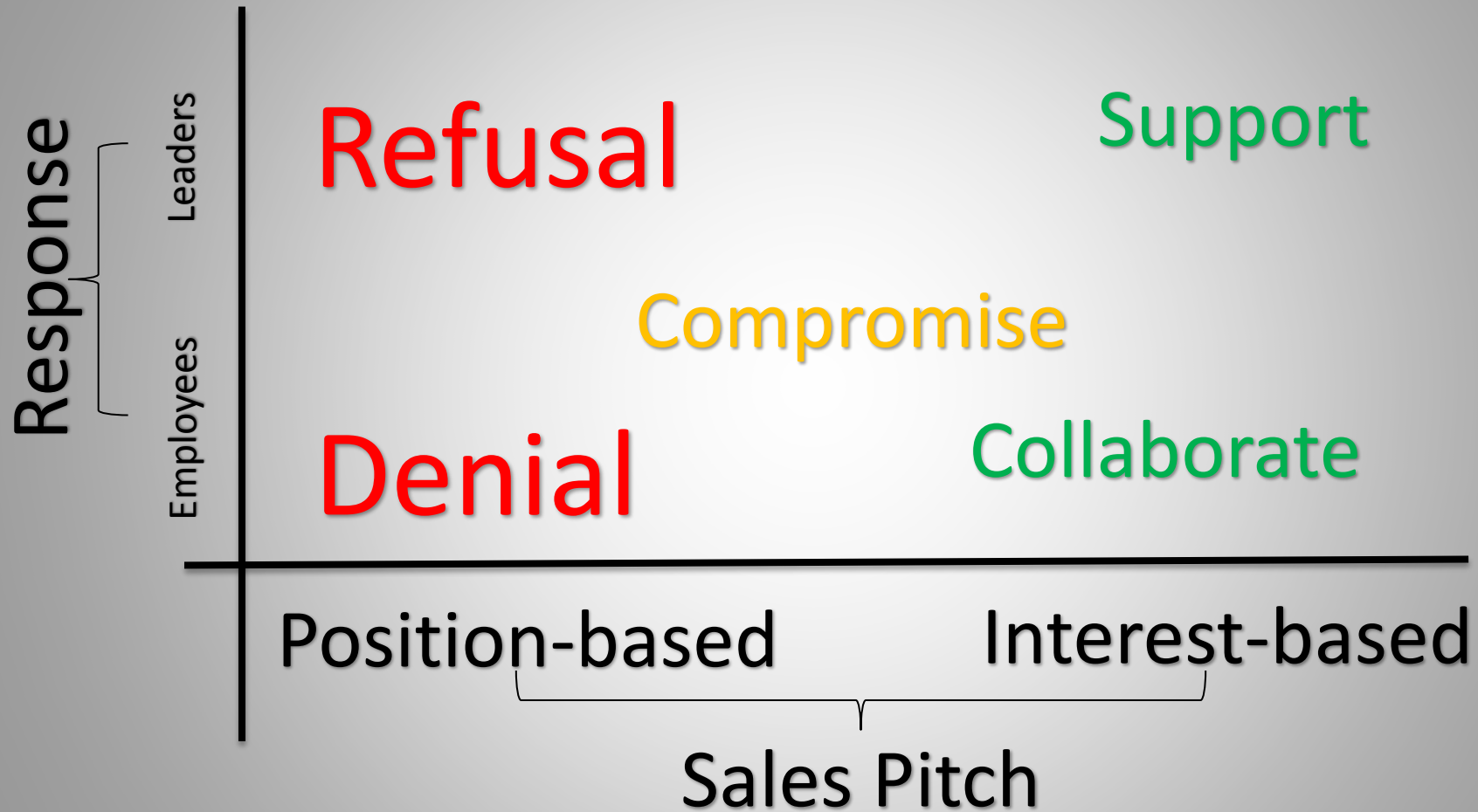
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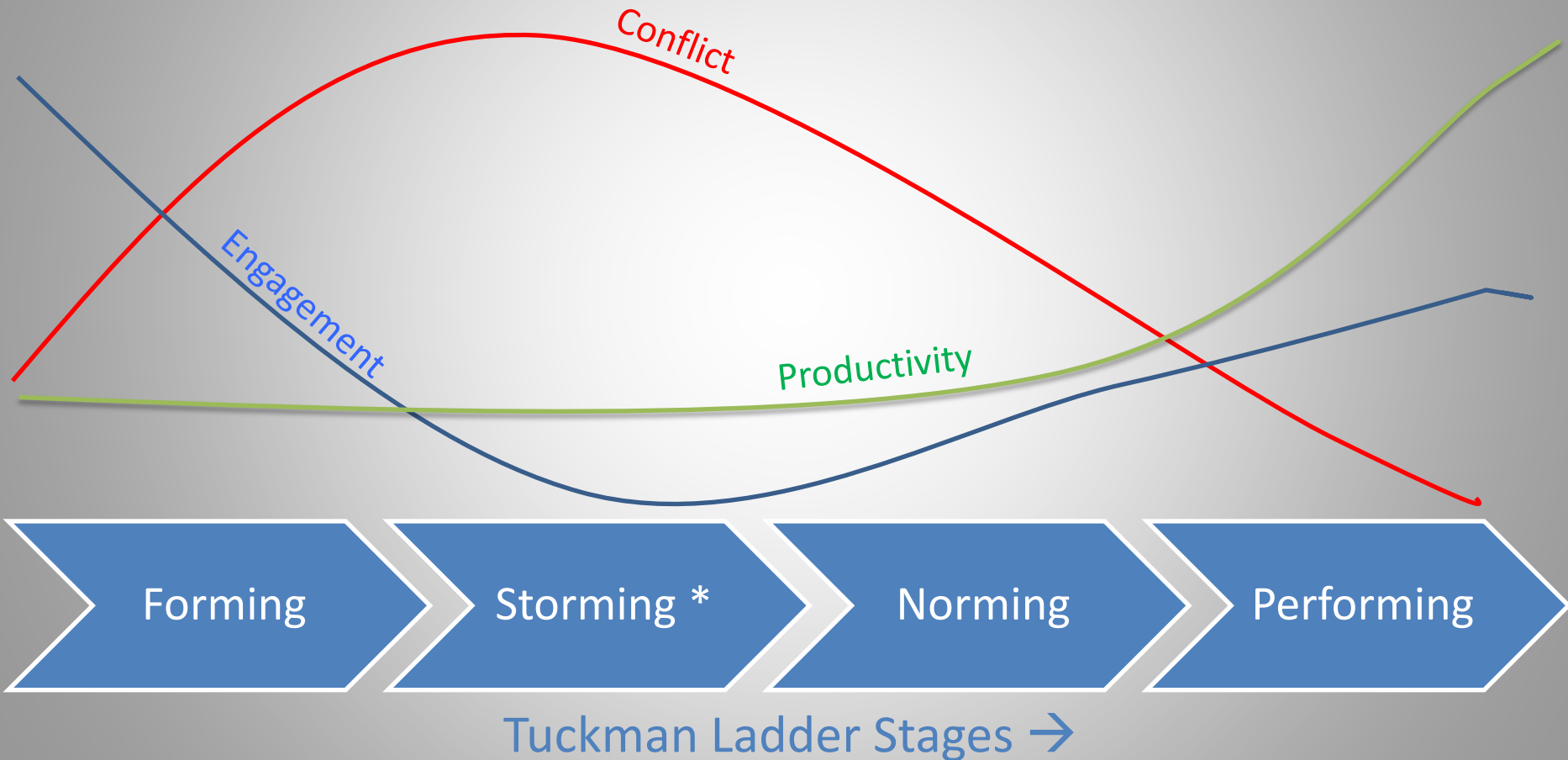
Who oversees the individual domains?

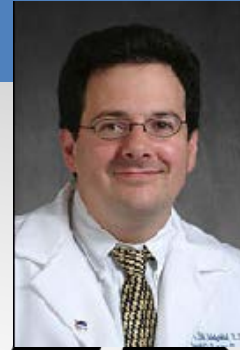


You sales pitch → Response you get



'behind the scenes'



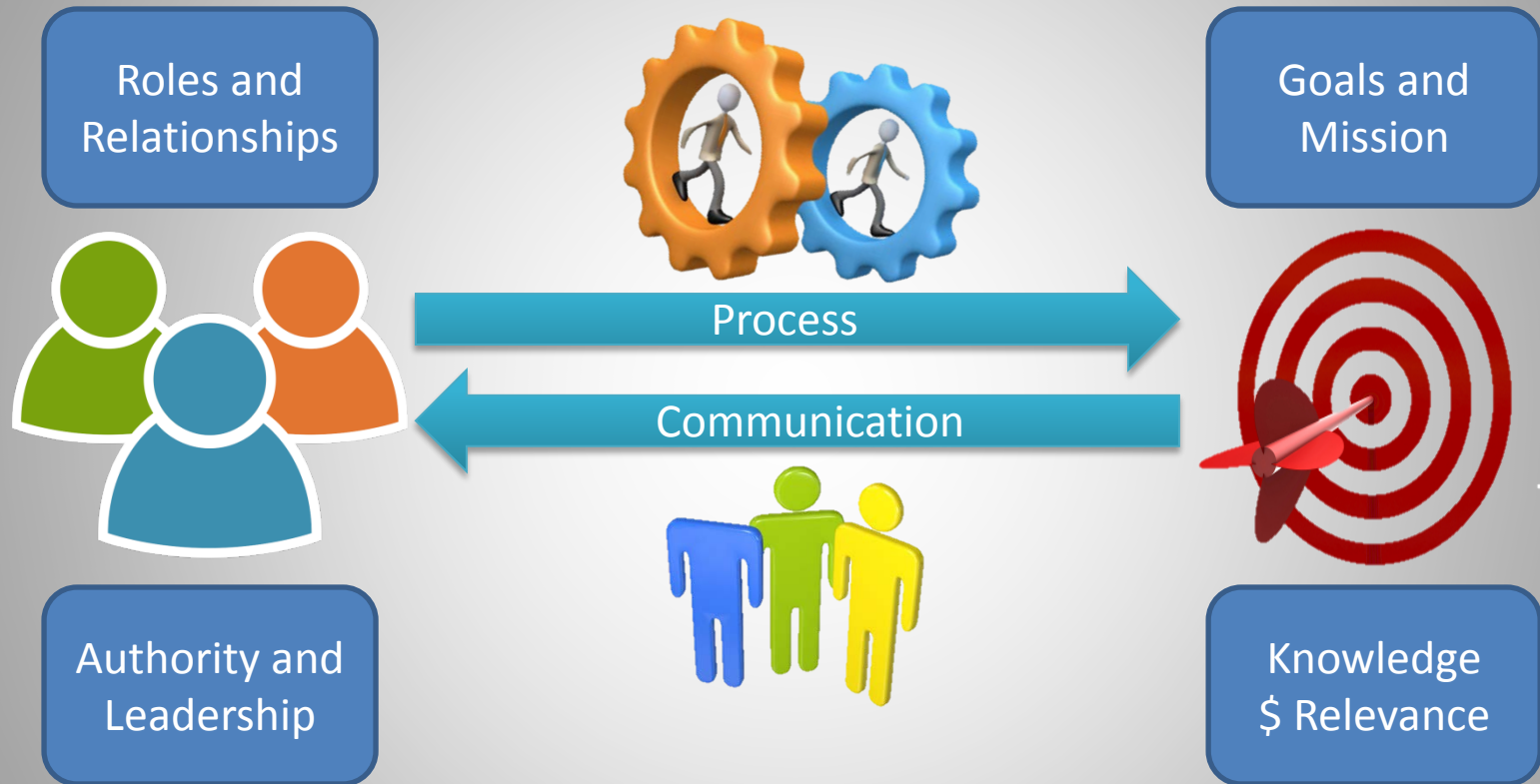


Our quest to create a provider-
centric Lab Utilization Task Force
(LUTF) at HFHS

Moments after you have embarked on a new multidisciplinary / multi-site collaboration!



0. Agree to a Collaboration Framework



1. Identify the Common Goal

Multidisciplinary and collaborative
framework for IPD AND OPD testing

Medically-
relevant



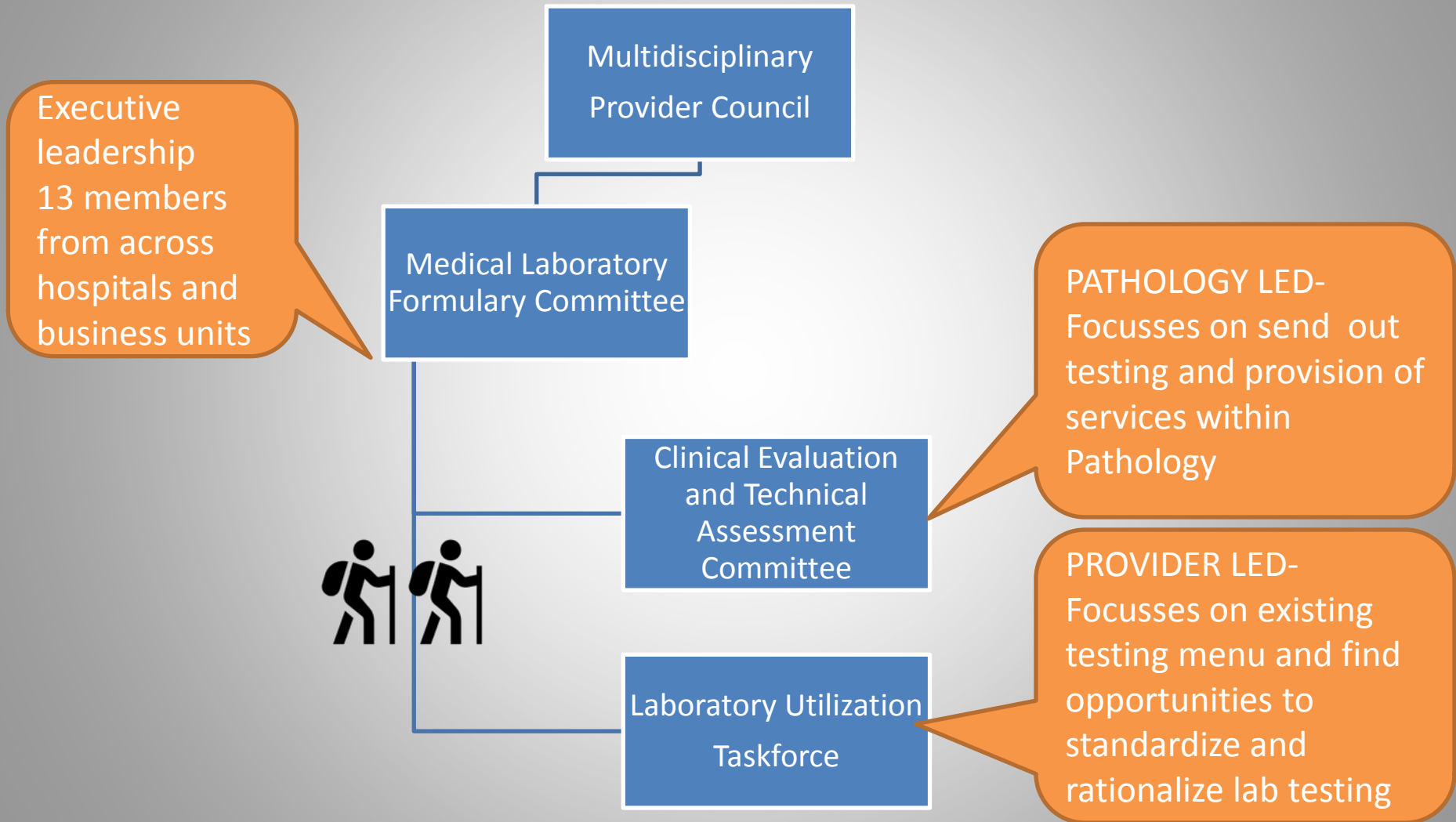
Self-learning
and Open

Cost-
effective

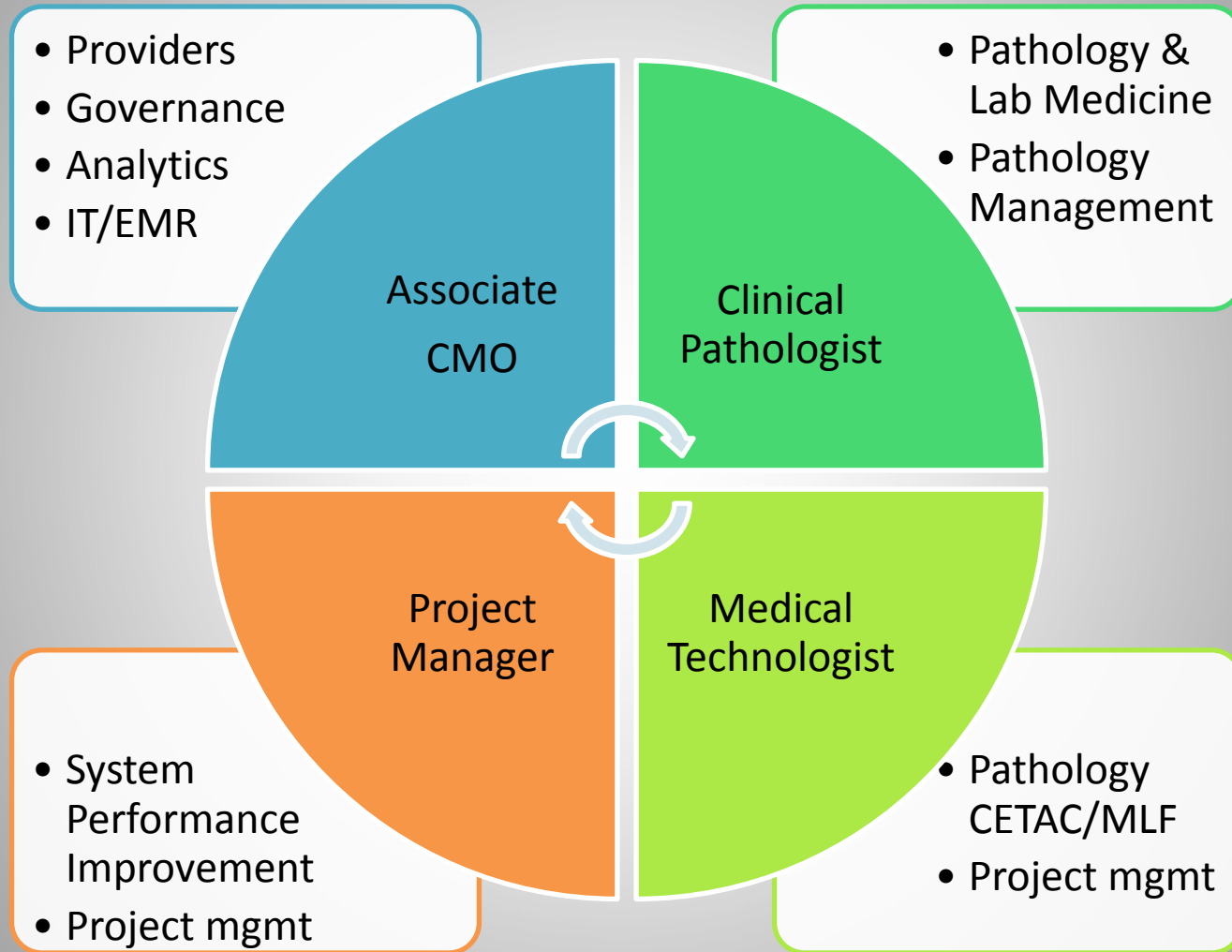
Scalable
and
Integrated

Evidence-
based

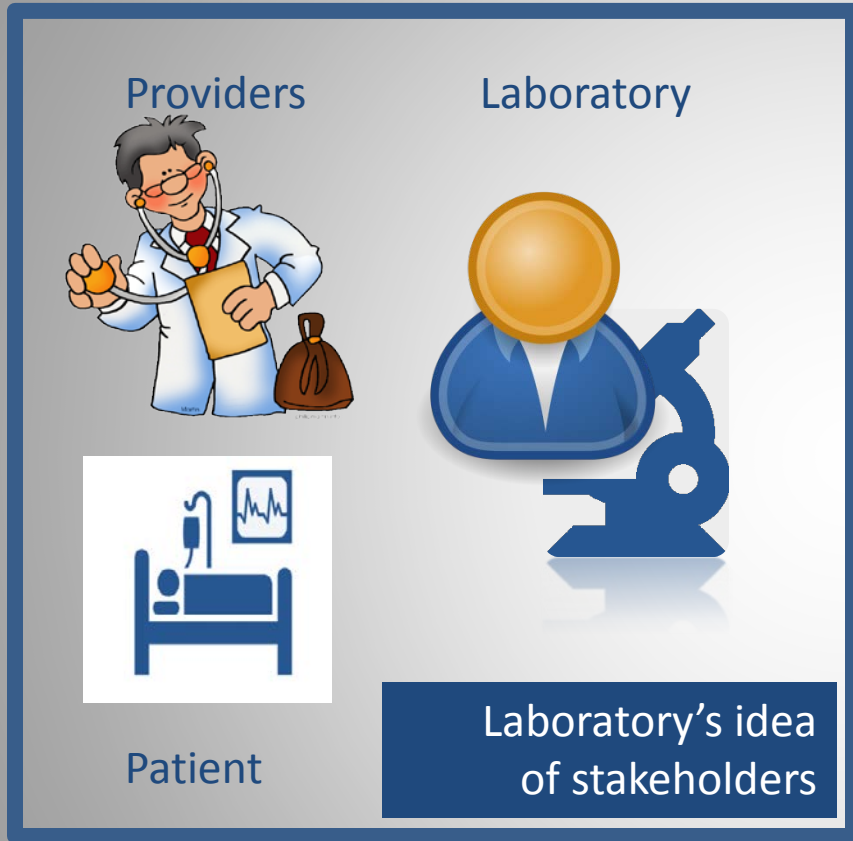
2. Acquire Legitimacy



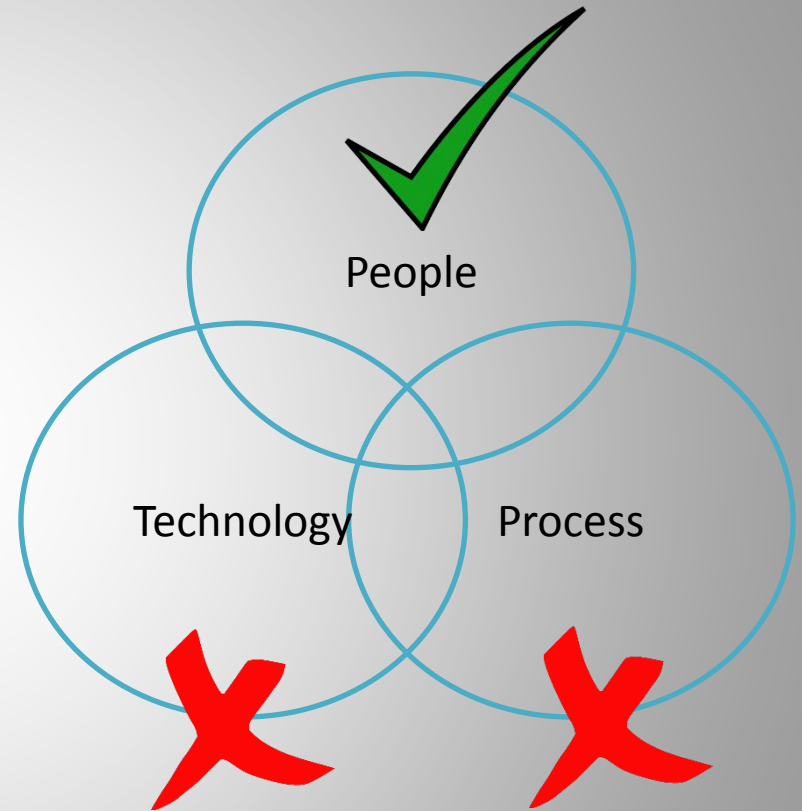
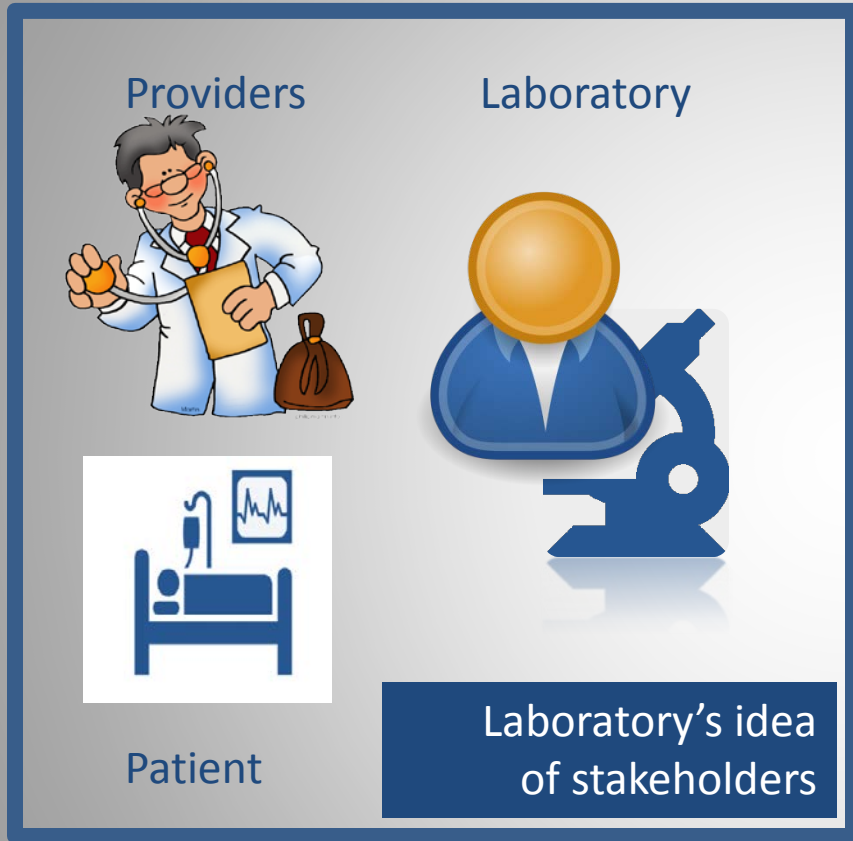
3. Get administrative help or Form a 'Steering Committee'



4. Gather the 'Team'



4. Gather the 'Team'



4. Gather the 'Team'

Providers



Laboratory



Patient

Laboratory's idea
of stakeholders



Medical
Leadership



Finance
Experts



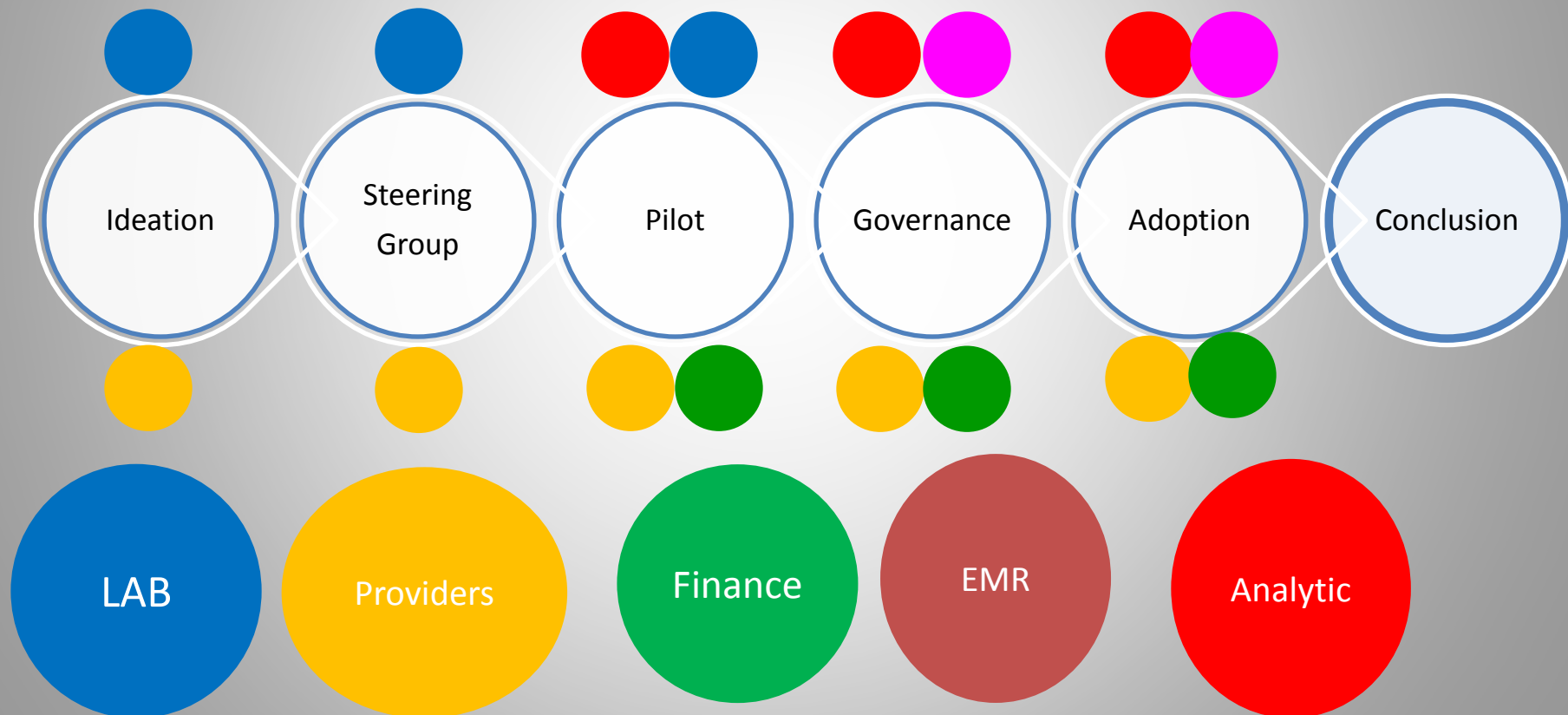
EMR IT Analytics
Teams



External
Vendors

Extended scope of
stakeholders

5. Define the Process

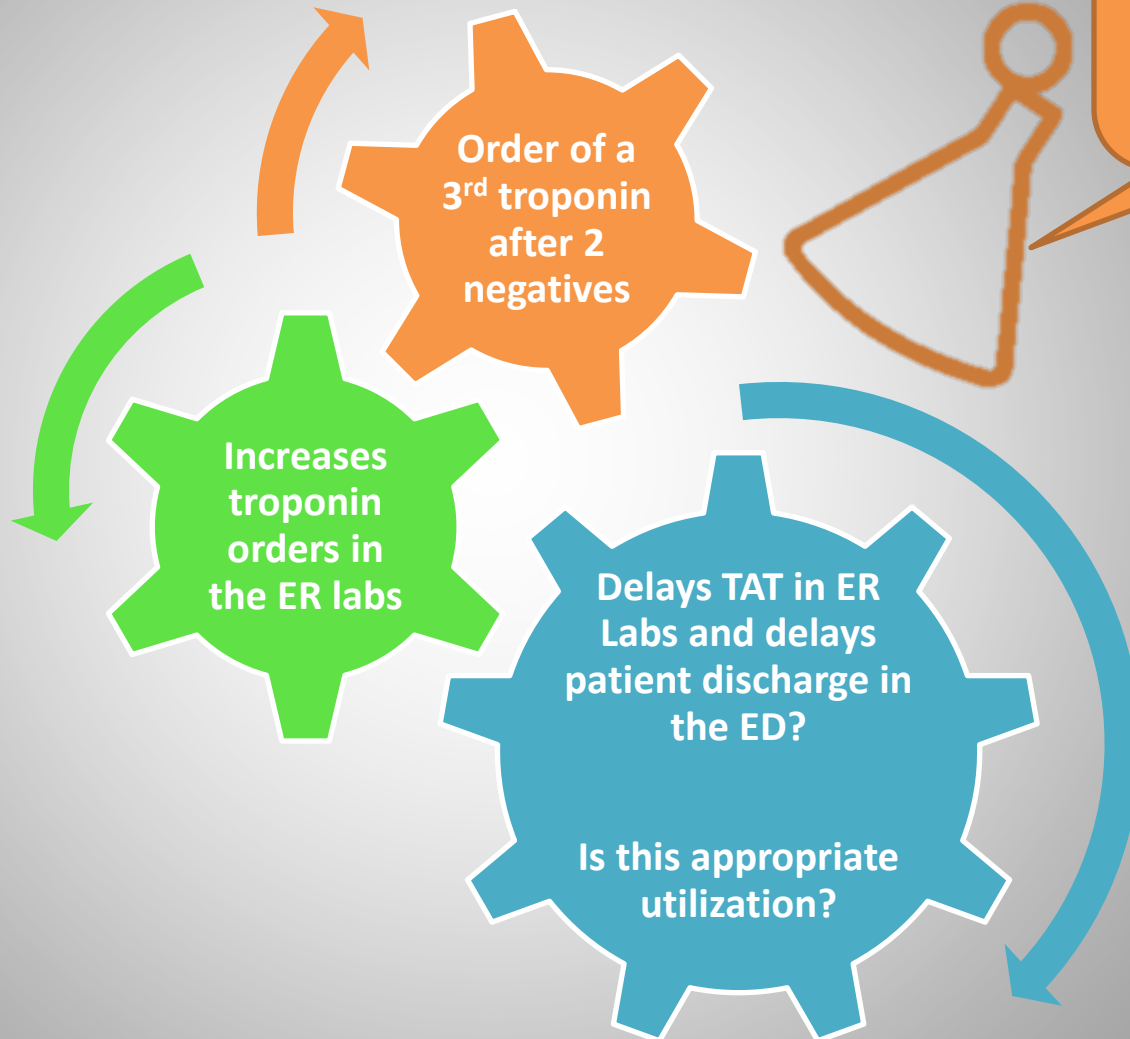


So, does it actually work?



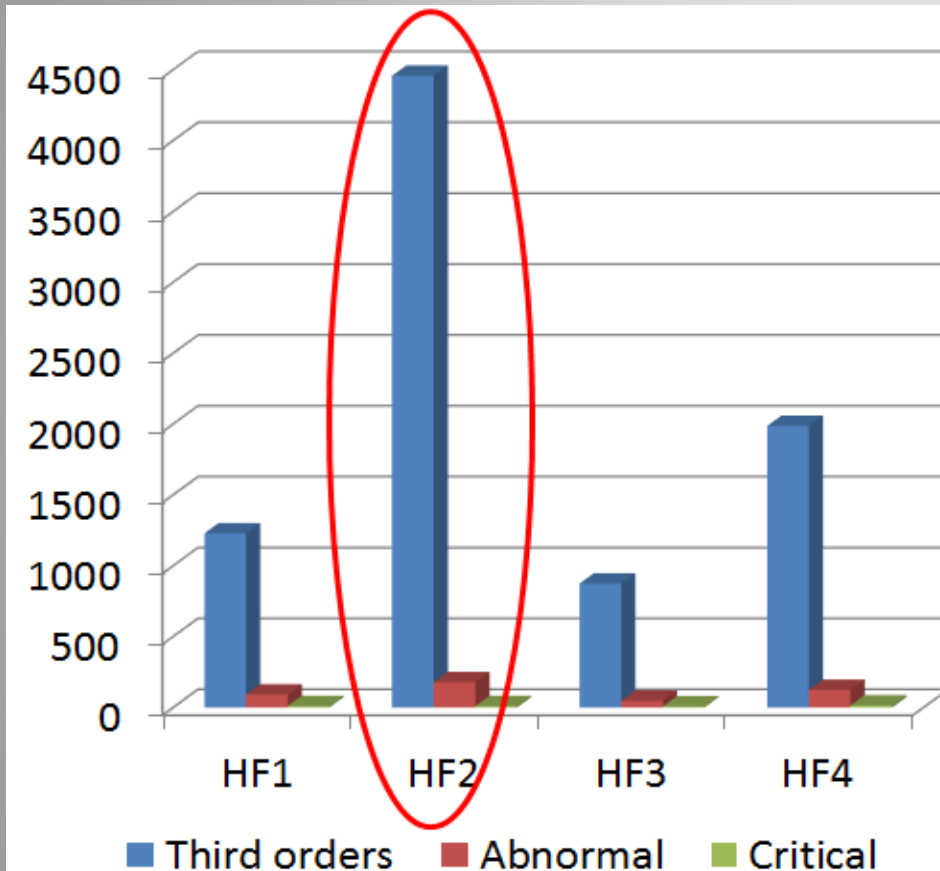
Reducing ED Overuse

May be needed, what if there is a complication?

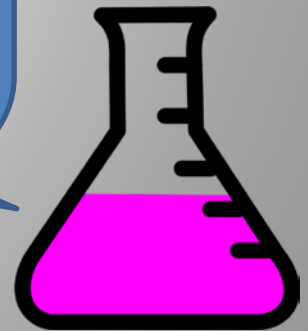


Delays TAT for other patients and adds to cost?

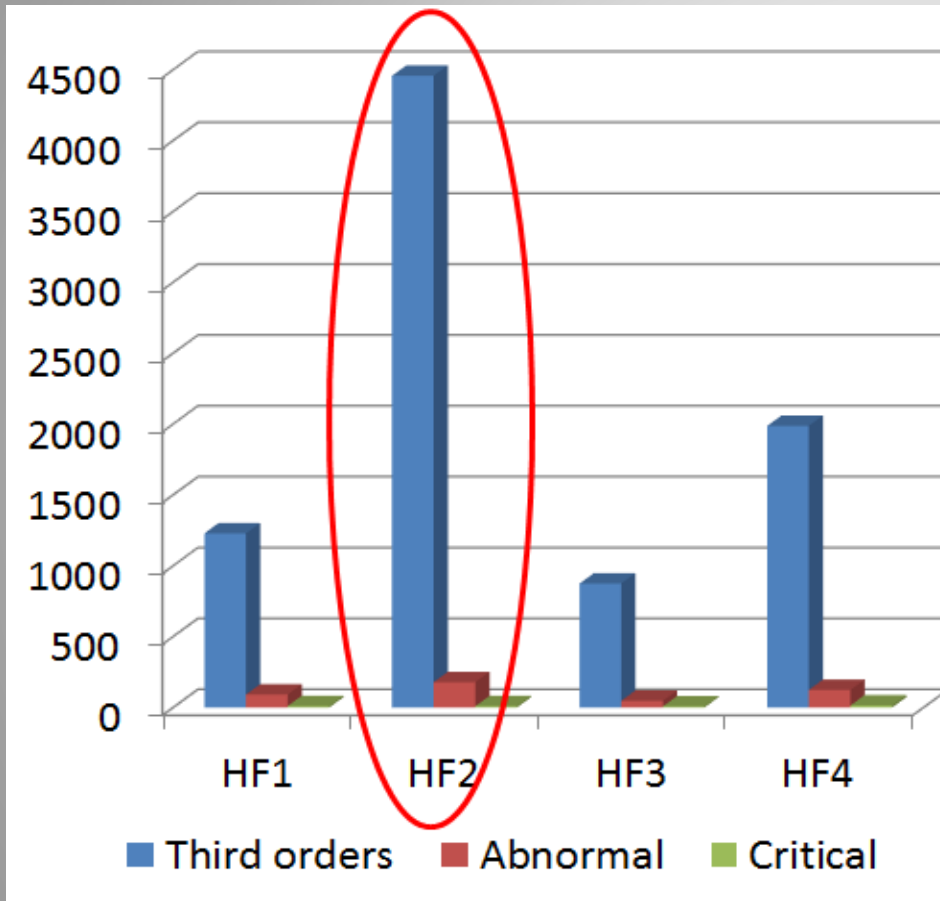
Variation within HF Sites....



- Biggest problem should be at the largest HF hospital (wrong)
- Maybe it does not impact us (wrong)
- Maybe they do agree on having several tests (wrong)



Variation within HF Sites....



- These must be the docs who don't follow recommendations (wrong)
- We will educate them! (wrong)
- It is pointless, what's the use (wrong)

Only 1 (?) in all these encounters!



Lack of
standardization
and awareness



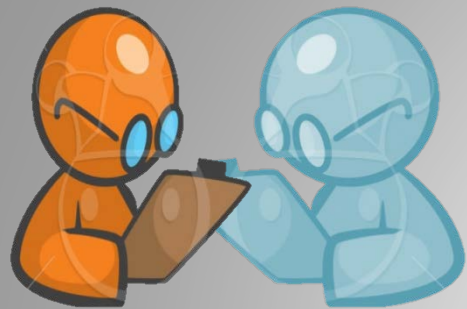
EHR order sets
did not match
the standard



HF2's order sets
were all set up
for repeated
ordering
troponin



Action to reduce 3rd TAT



Our group
consolidated
the information

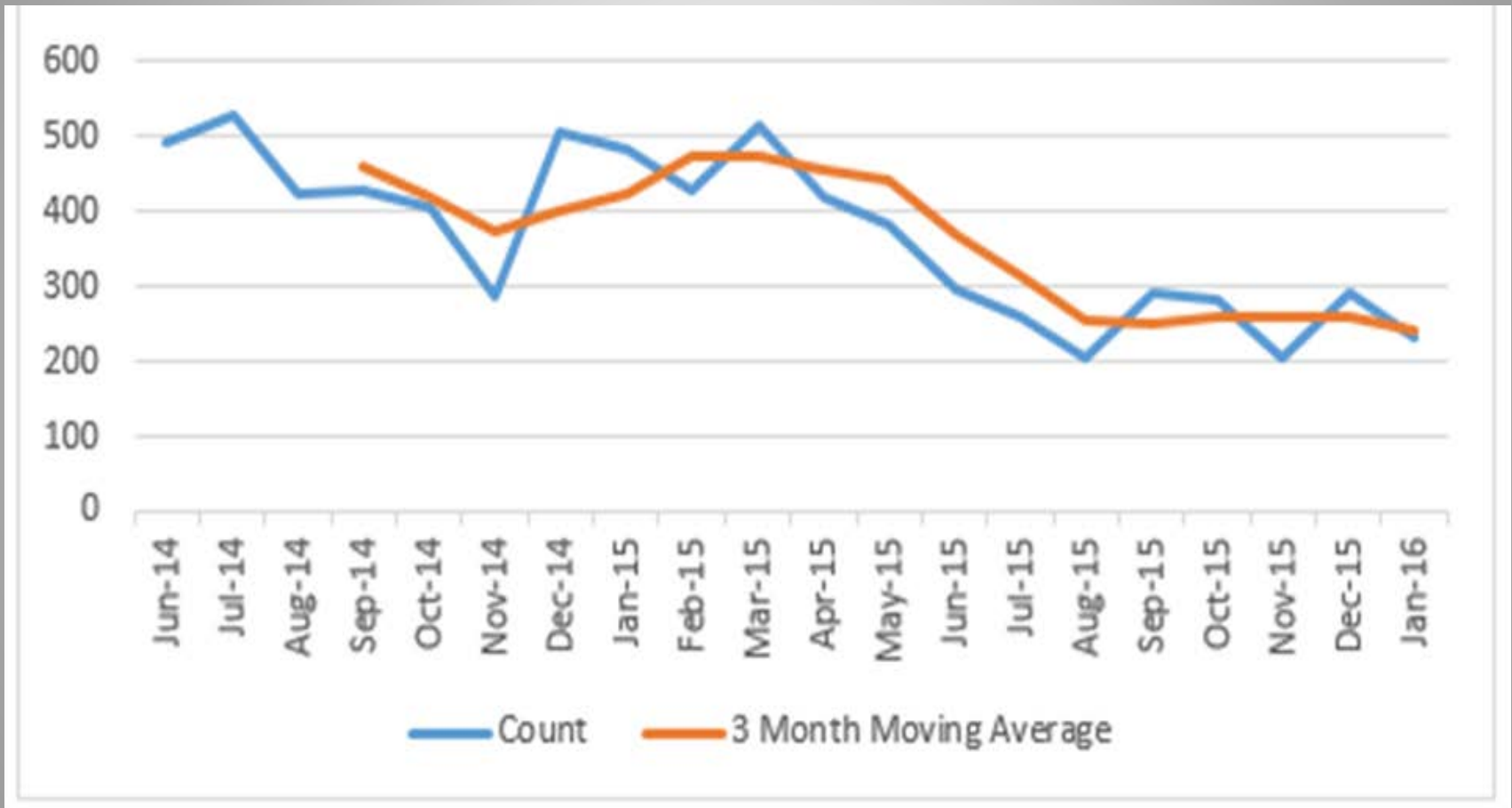


Hospital leaders
were informed
Providers were
educated



Changes were
made in EMR!

Success at HF2!



What is the impact on ED TAT and \$

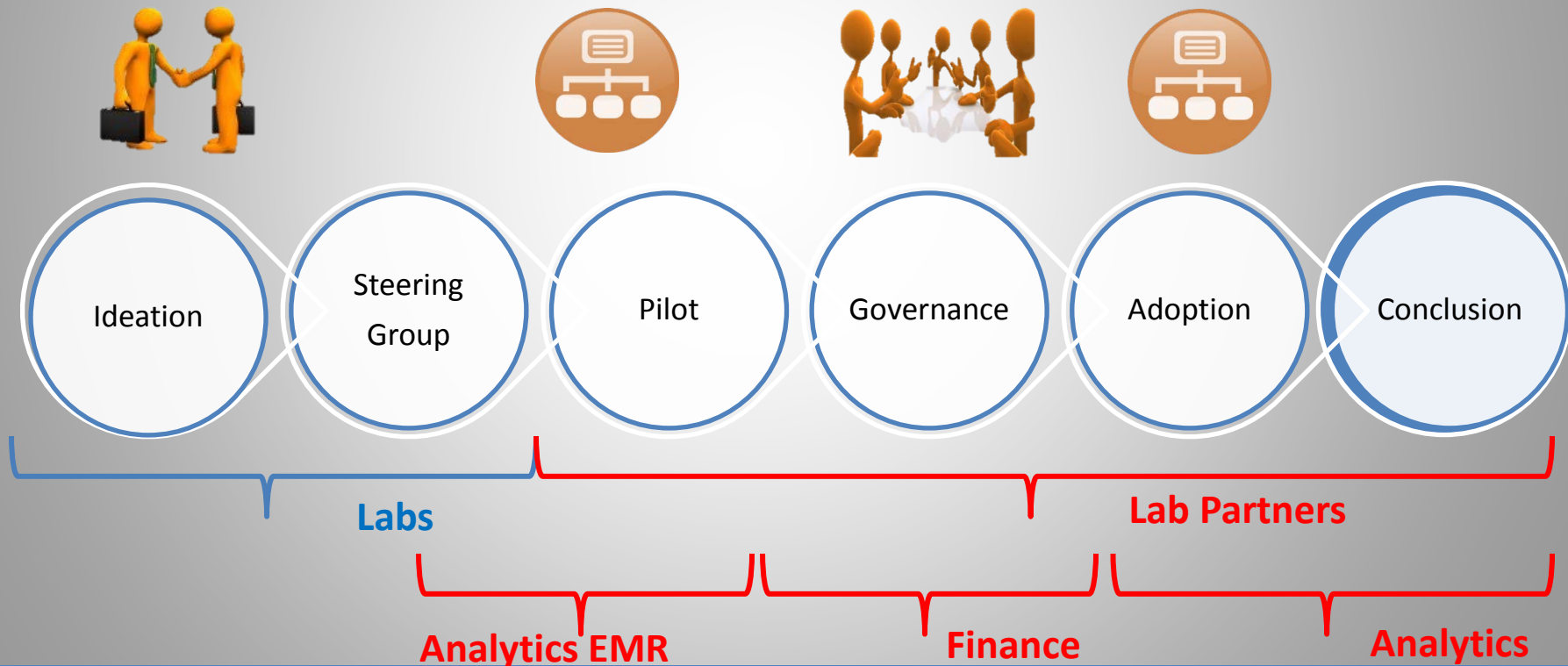
Impact on ED TAT and Cost

	HF1	HF2	HF3	HF4	HF5	HF6	HF7	HF8	HF9	GRAND TOTAL
Average of ED_LOS										
2	420	305	503	270	286	356	306	375	271	380
3+	1075	471	601	725		420	326	443	457	442
Average of total										
2	420	347	536	270	286	388	491	382	271	433
3+	1075	774	688	725		499	644	465	457	534
Count of CSN_ID										
2	1018	8002	17027	2080	5	9620	10259	9906	2468	60385
3+	6	51	831	10		3278	622	1436	12	6246
Total Average of ED_LOS	424	306	507	273	286	372	307	383	272	386
Total Average of total	424	350	543	273	286	416	500	393	272	442
Total Count of CSN_ID	1024	8053	17858	2090	5	12898	10881	11342	2480	66631
Hours of opportunity	66	142	1338	76	0	3518	210	1630	37	6451

>5000 ED Wait Hours!

Source: Dr. Matthew Cerasale et al. HFHS

Mapping the Process



Supporting Choosing Wisely

- Don't routinely measure 1,25 dihydroxy vit D
- Don't perform 25-hydroxy vit D population screen
- Don't perform unproven diagnostic tests for allergy
- Don't perform low risk HPV testing
- Don't test for thrombophilia in adult patients with VTE occurring in setting of major transient risk
- Don't perform repetitive CBC and chemistry testing in setting of clinical and lab stability
- And many others....

Daily Labs-Choosing Wisely



An initiative of the ABIM Foundation

Critical Care Societies Collaborative - **Critical Care**

AMERICAN
ASSOCIATION
of CRITICAL-CARE
NURSES

 **CHEST™**
AMERICAN COLLEGE
of CHEST PHYSICIANS



We help the world breathe®
PULMONARY • CRITICAL CARE • SLEEP

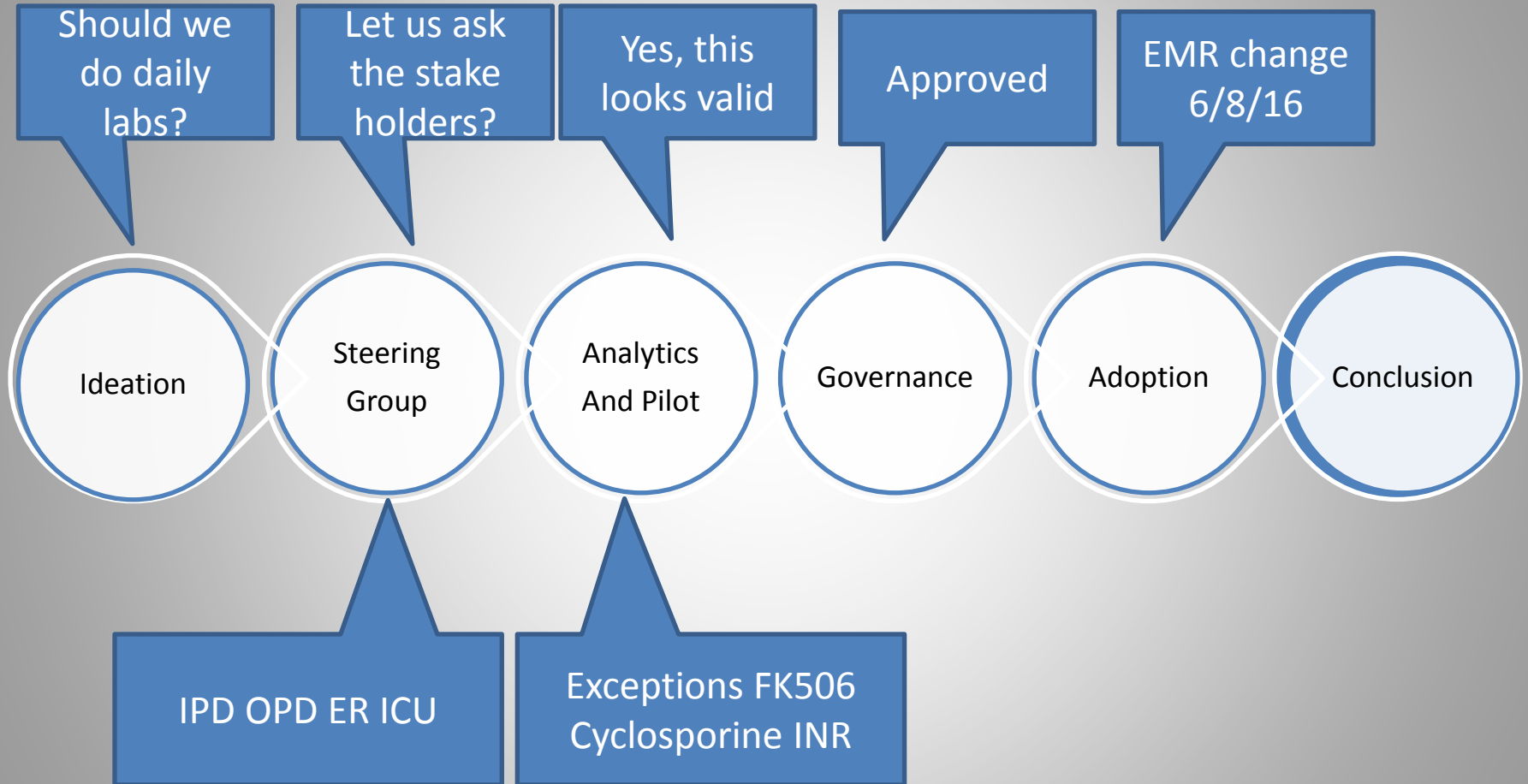
 Society of
Critical Care Medicine
The Intensive Care Professionals

Five Things Physicians and Patients Should Question

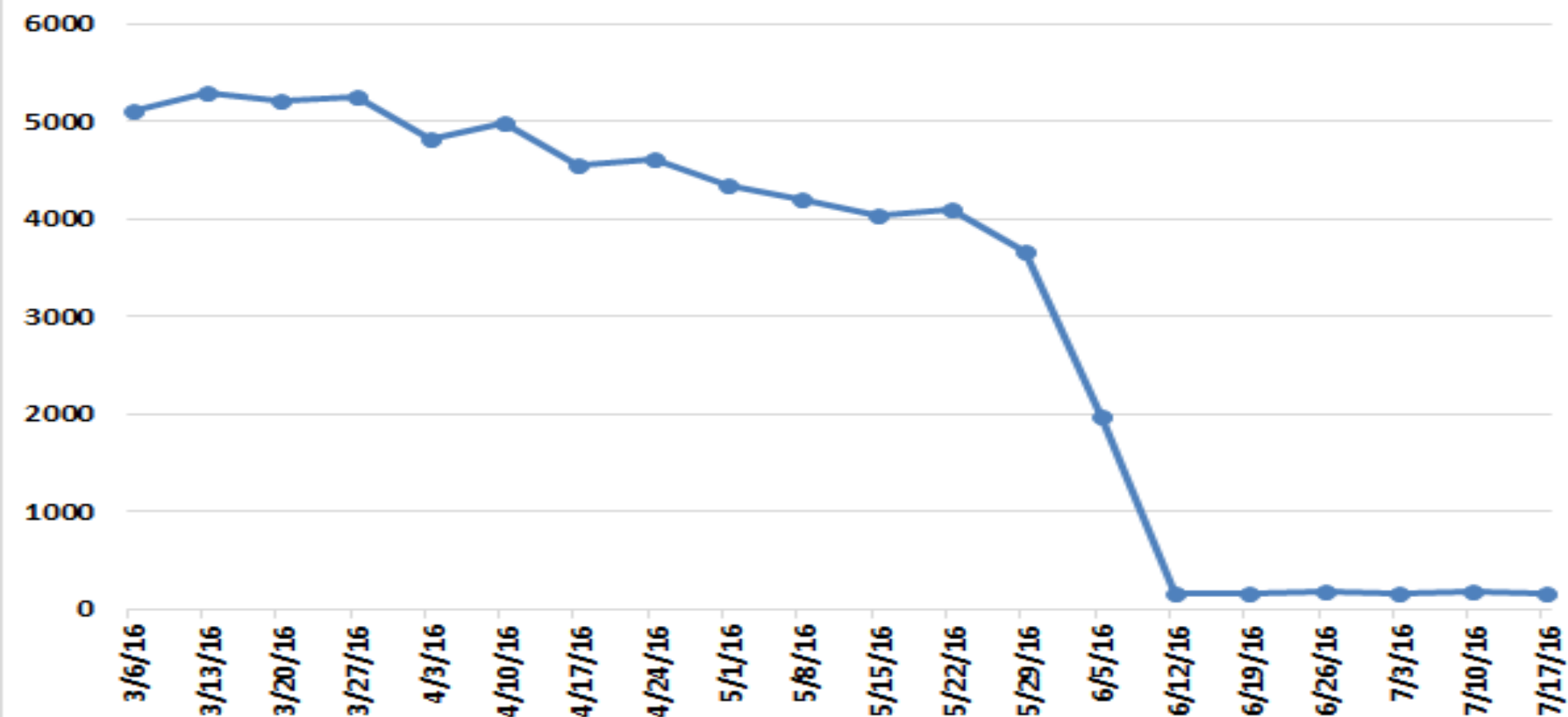
Don't order diagnostic tests at regular intervals (such as every day), but rather in response to specific clinical questions.

Many diagnostic studies (including chest radiographs, arterial blood gases, blood chemistries and counts and electrocardiograms) are ordered at regular intervals (e.g., daily). Compared with a practice of ordering tests only to help answer clinical questions, or when doing so will affect management, the routine ordering of tests increases health care costs, does not benefit patients and may in fact harm them. Potential harms include anemia due to unnecessary phlebotomy, which may necessitate risky and costly transfusion, and the aggressive work-up of incidental and non-pathological results found on routine studies.

Eliminating DAILY Labs



Daily -Labs Orders by Physicians Per week at HF1



Row Labels	LIVER PROFILE	FK506 LEVEL	CYCLOSPRNE A LEVEL	CREATININE	CBC AND DIFFERENTIAL	CALCIUM, IONIZED	CALCIUM	BASIC METABOLIC PROFILE
4/24/16	81	23	8	71	777	33	8	1050
5/1/16	81	24	2	45	748	24	10	1023
5/8/16	87	31	4	59	644	25	9	927
5/15/16	48	32	1	65	614	19	13	895
5/22/16	55	33	3	69	586	12	8	928
5/29/16	69	23	6	41	626	12	4	844
6/5/16	33	29	3	27	305	3	10	446
6/12/16	1	17	6		2			2
6/19/16		21						
6/26/16		29	7					
7/3/16	1	20	2		1			2
7/10/16		16	3					
7/17/16		27	2					

Vit D Terminology Check

Vitamin D 1,25 DiHydroxy is not on the regular preference list, it is only on the Facility List.

Regular Preference List:

Preference List Search - Hema,Hema

Vitamin D

☐ Clinic Administered Meds ☒ Orders & Prescriptions ☒ Medications ☒ Procedures ☒ Orders

Name	Dose	Frequency	Type	Code	Pref List
Vitamin D			Lab	LAB13446	HF AMB LAB PREFEREN

Facility Preference List:

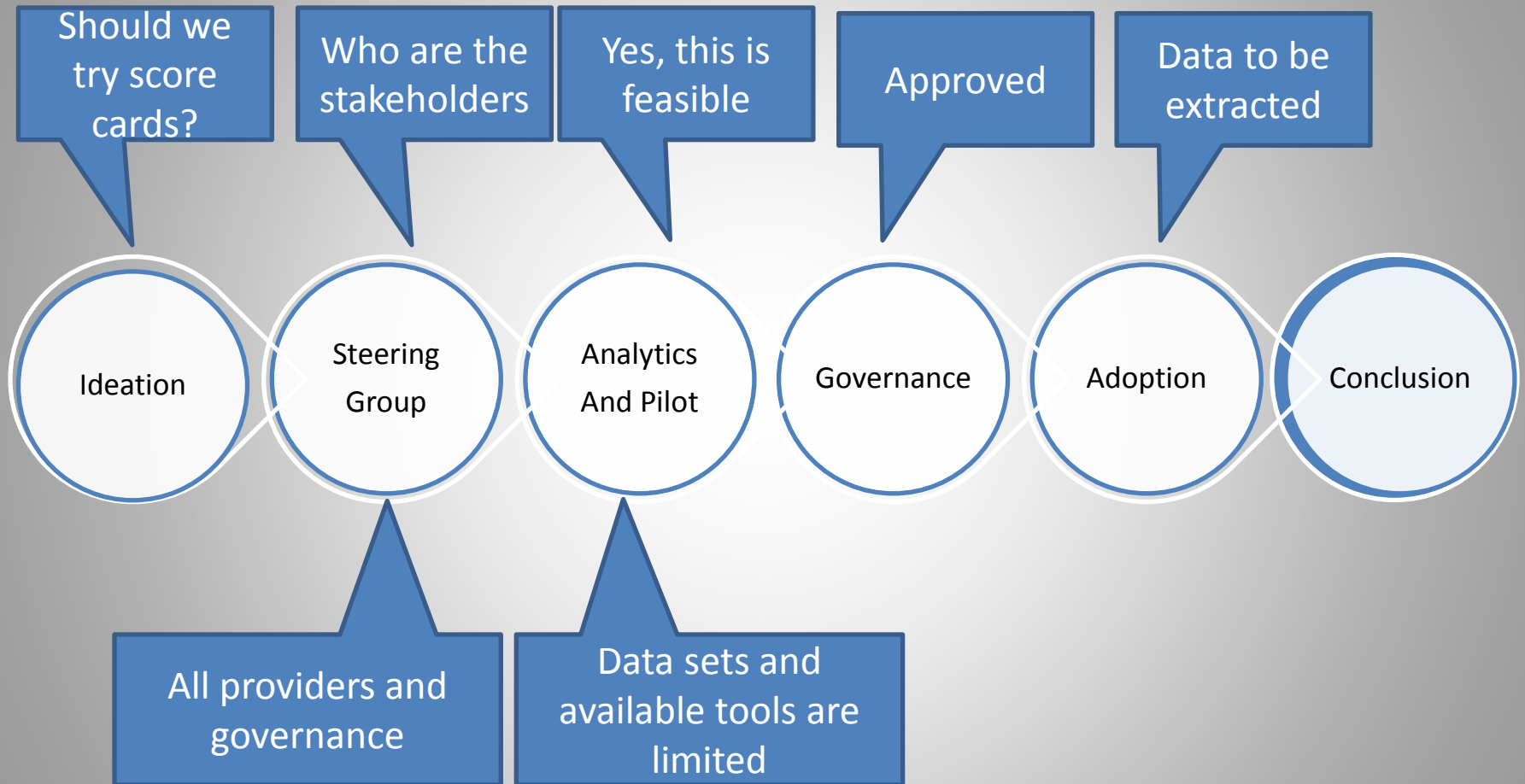
Facility List Search - Hema,Hema

Vitamin D

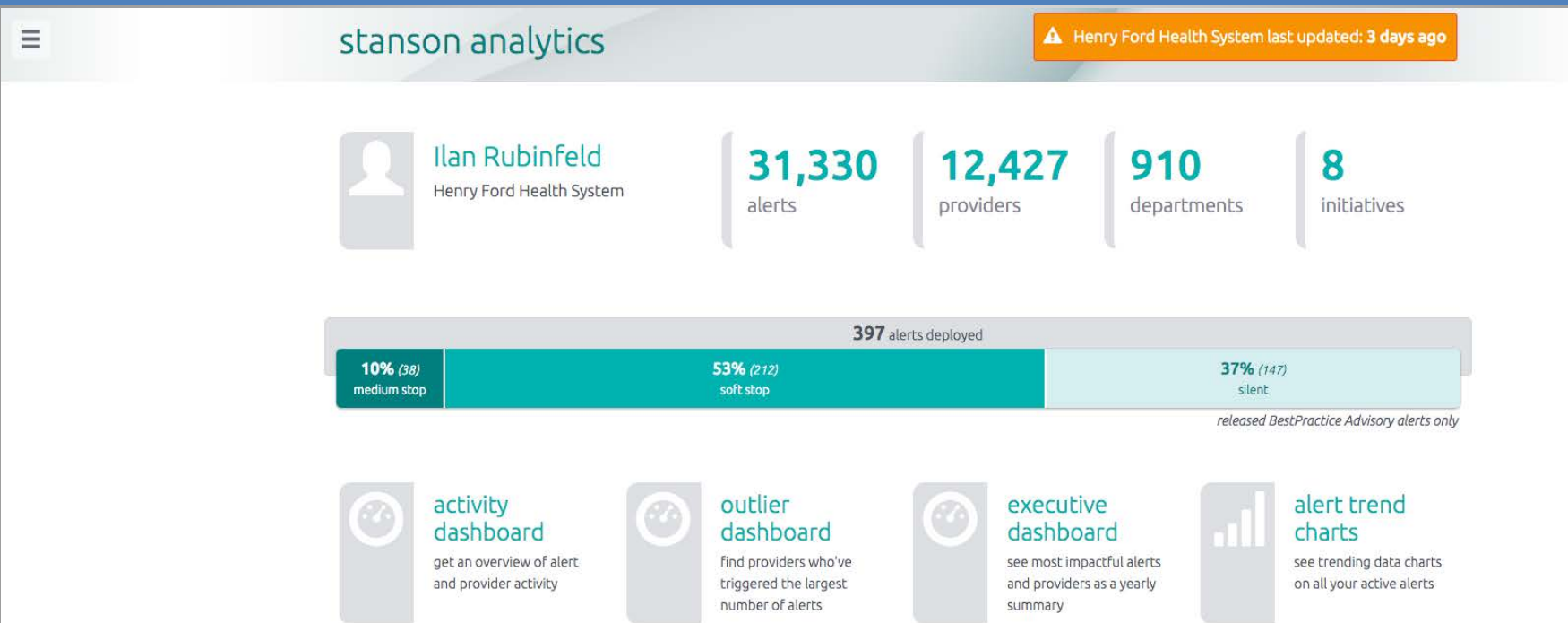
☐ Clinic Administered Meds ☒ Orders & Prescriptions ☐ Medications ☒ Procedures ☒ Orders

Name	Dose	Frequency	Type	Code	Pref List
Vitamin B12 Binding Capacity (1,25 DIHYDROXYVITAMIN D)			Lab	LAB973	HF AMB LAB PREFEREN
Vitamin D			Lab	LAB13446	HF AMB LAB PREFEREN
Vitamin D 1,25 DiHydroxy			Lab	LAB53611	HF AMB LAB PREFEREN

Provider Score Cards



Use of 3rd Party Analytics



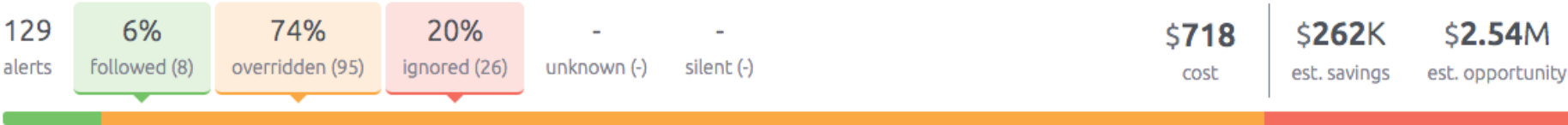
- New BPA with Choosing Wisely Content
- Improved analytics, for new and existing HFHS BPAs

Blood Transfusion in Patients with HGB Greater than 7

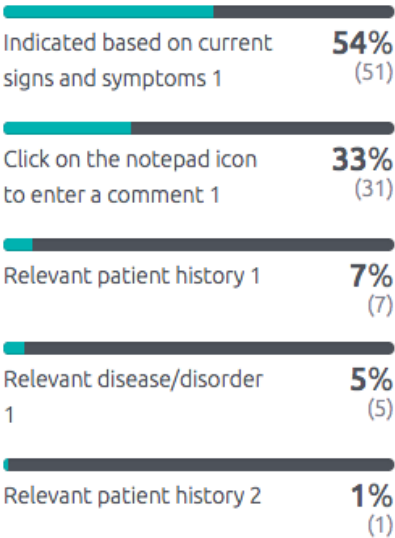
G/DL INP

BestPractice Advisory [130401163113100]

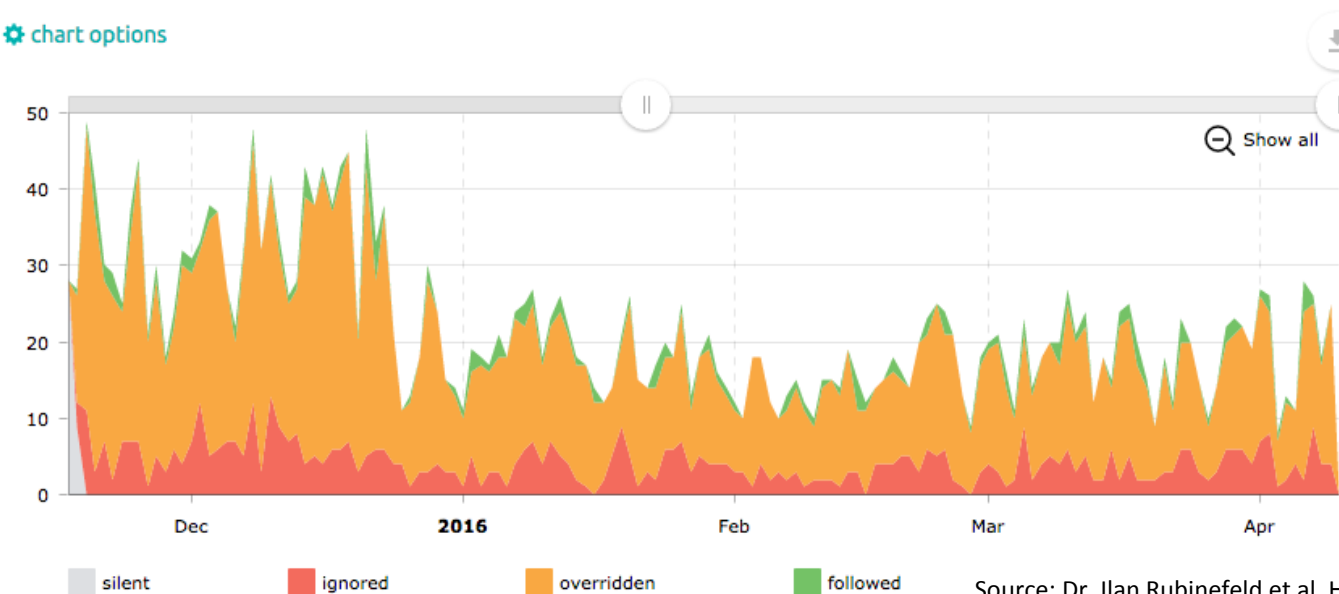
The AABB recommends adhering to a restrictive transfusion strategy (7 to 8 g/dL) in hospitalized, stable patients. The AABB suggests that transfusion decisions be influenced by symptoms as well as hemoglobin concentration. According to a National Institutes of Health Consensus Conference, no single criterion should be used as an indication for red cell component therapy. Instead, multiple factors related to the patient's clinical status and oxygen delivery should be considered.">Avoid transfusions of red blood cells for arbitrary hemoglobin or hematocrit thresholds and in the absence of symptoms of active coronary disease, heart failure or stroke.



overrides (95 total)



trends



4 Key Collaboration Elements

Laboratory

Aligned goals and understanding

Governance and process

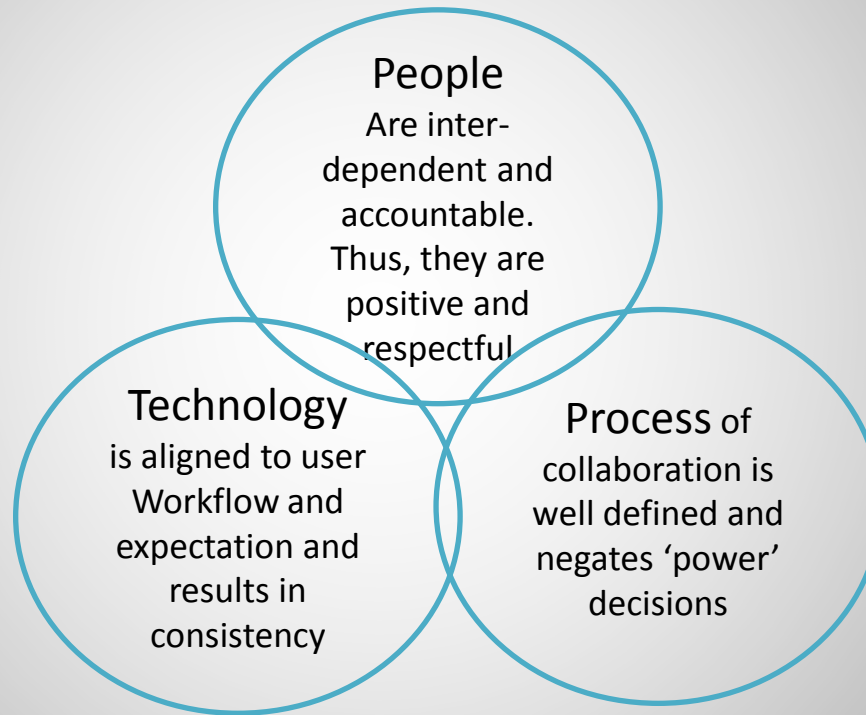
Communication Pathways

Data-driven problem solving

Providers



Making Collaboration Work!



Remember Rules of Meeting Hygiene

Pre-syndicate when possible

Do the real work off line, limit public brainstorming

Know your agitators and radicals, love them, but keep them close

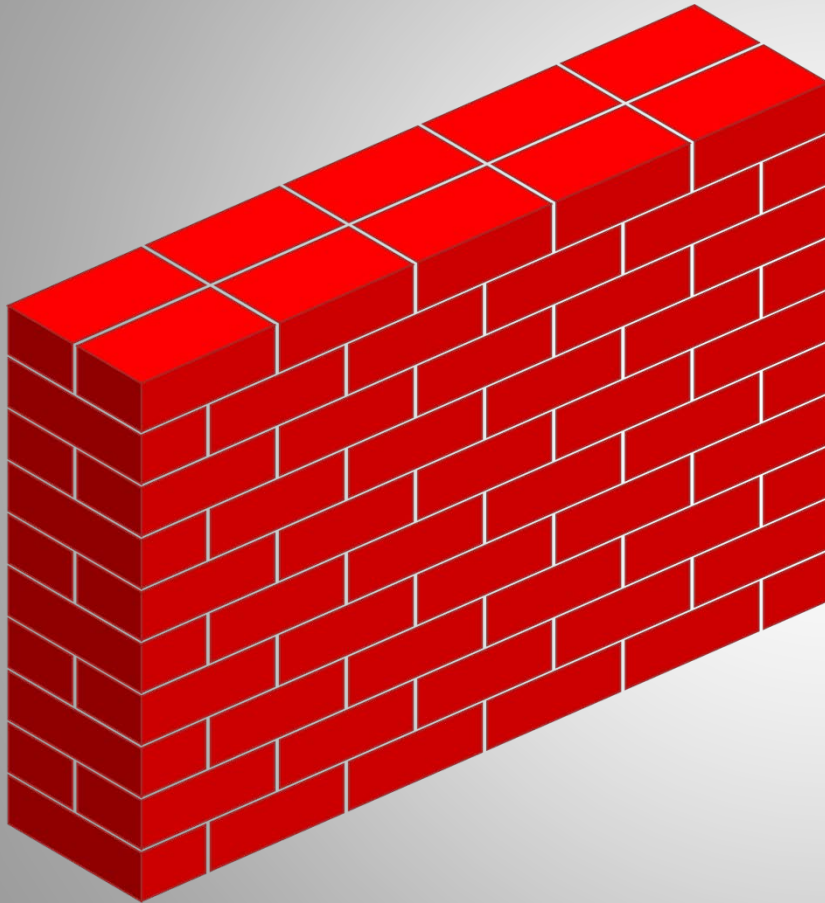


Prep and have all of your ducks in a row

More impact the decision has, the less risk you can take

Cultivate your attendees and give them reasons to return

You will hit a WALL by:



- Not having a clear authority and joint-ownership with Clinical Leaders
- Not triaging projects with actual data
- Not having a clear and defined process

Conclusions

- The challenges that the laboratories face are our:
 - Self imposed isolation and sole focus on the analytic step
 - Limited understanding of how our customers utilize our services
- These challenges can be overcome by:
 - Collaborating with providers through a structured process and framework
 - Making the clinical care processes more efficient by provision of correct and timely laboratory services, and measuring its financial and quality impact