



Driving Productivity at TriCore

How Culture, Vendor Engagement and Analytics
Generate Ongoing Efficiencies

Today's Objectives

- Identify the importance of translating a corporate strategy into actionable goals for staff
- Learn multiple approaches to formalizing staff goals
- Understand one approach to identifying and prioritizing improvement opportunities
- Understand the positive impact of hospital collaboration in creating efficiencies and cost savings
- Understand the positive impact of efficient use of quality control to patient care and finances

TriCore's Strategic Initiatives

The graphic is a teal-colored rectangular box with a white border. At the top, it features the title '2015-2016 STRATEGIC INITIATIVES' in large white capital letters, followed by the subtitle 'Reshaping the way healthcare is delivered' in a smaller white font. Below the subtitle, there are four columns, each representing a strategic initiative. Each column starts with a circular icon: a group of people for Culture, a medical cross for Medicine, a bar chart for Growth, and a clock for Efficiency. The icons are in shades of yellow, orange, blue, and purple respectively. Below each icon, the initiative name is written in all caps, followed by a list of specific goals and actions. At the bottom center of the graphic is the TriCore Reference Laboratories logo, which consists of a square icon with a diagonal line and the text 'TRICORE REFERENCE LABORATORIES'. In the bottom right corner, there is a small date '9/26/16'.

2015-2016 STRATEGIC INITIATIVES

Reshaping the way healthcare is delivered

CULTURE	MEDICINE	GROWTH	EFFICIENCY
ENRICH CULTURE	ADVANCE HEALTHCARE	GROW TOP LINE	IMPROVE BOTTOM LINE
Strengthen our culture	Technology to improve healthcare	Grow TriCore revenue	Increase net income
Improve employee survey results	Complete/Launch eMPI	Retain and improve client relationships	Manage supply chain
Build culture of trust and ownership	Complete/Launch HISP	Grow Laboratory Management Services Institute (LMS)	Employee incentives
Clarify and simplify communications	Complete/Launch Diagnostic Optimization Institute (DxOp)	Grow TriCore Research Institute (TRI)	Eliminate waste
Enhance employee relations and recruiting		Grow Rhodes Group	Work smarter
			Engage workforce

TRICORE
REFERENCE LABORATORIES

9/26/16

What is Efficiency?

- “Meeting exact customer requirements with the minimum amount of resources.”
 - <https://www.lean.org/lexicon/efficiency>
- “Processes have between 10 and 40% non-value added steps”
 - Creating a Lean Culture

Bottom Line- Measurement of Efficiency

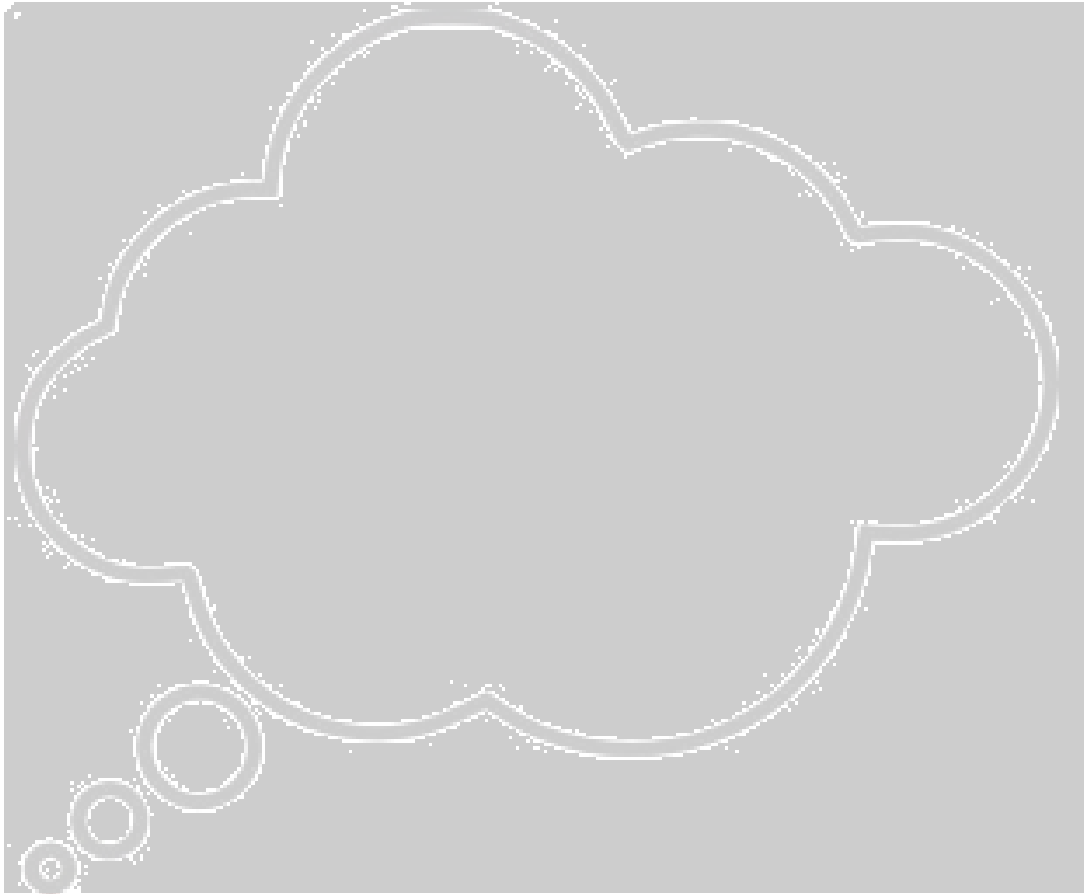
BREAKING DOWN 'Bottom Line'

The reference to "bottom" describes the relative location of the net income figure on a company's [income statement](#); it will almost always be the last line at the bottom of the page. This reflects the fact that all expenses have already been taken out of revenues, and there is nothing left to subtract. This stands in contrast to revenues, which are considered the "top line" figures.

Most companies aim to improve their bottom lines through two simultaneous methods: growing [revenues](#) (i.e., generate top-line growth) and increasing efficiency (or cutting costs).

Read more: [Bottom Line Definition | Investopedia](http://www.investopedia.com/terms/b/bottomline.asp#ixzz3t2eg0wIH)
<http://www.investopedia.com/terms/b/bottomline.asp#ixzz3t2eg0wIH>

Where Do I Fit In?



Strategic Initiatives: From Vision to Action

- Translation of the **Efficiency** initiative to a actionable goals
- Focus on elimination of **waste**, gains in **efficiency** & decrease **cost**
- **Bottom-up** approach with the execution of this Initiative

EFFICIENCY

Strategic Initiatives: From Vision to Action

Call to Action- Eliminate Waste!

1. Establish a goal for each employee to submit one efficiency improvement idea per year.
2. Identify one project per quarter to implement.
3. Elevate it to the appropriate business owner
 - a. Department only- Supervisor
 - b. Between Departments- Manager
 - c. Between Divisions- Director
4. Implement it.
5. Celebrate it!



- Employee goal linked to Initiative
- Goal applies to all leadership and staff
- Common language to apply to all areas of operation

Strategic Initiatives: From Vision to Action

Organizational Strategic Goal: Drive 10% improvement in process efficiency and waste elimination in technical areas and 25% in non-technical areas.

Operational Goal:

- **Directors:** Provide the framework for the implementation of improvement ideas across assigned division.
- **Managers:** Implement 1 measurable efficiency idea per quarter or 4 per year and quantify the efficiency gained for each idea implemented.
- **Staff:** Submit at least 1 efficiency idea for 2016

Rating:

5 - Idea Submitted and implemented with significant measurable and documented savings

4 - Idea Submitted and implemented by 10-1-16

3- Idea Submitted Prior to April 30, 2016

2 - Idea Submitted after 10-1-16

1- No idea Submitted by December 1, 2016

EFFICIENCY

Goal Tracking: Evidence of Action

Division Level

PHS 2016 Efficiency Tracking and Implementation

Date	Idea Identified By	Manager	Site/Department	Process Identified for Efficiency	Type of Waste(s) Identified	Explanation of Waste	Plan to Eliminate Waste	Time saved	Supplies saved	Departments Impacted	Implemented? (Y/N)	Explanation (If Not Implemented)	Percent Completion of Selected	Date of Implementation	Process Implementation Owner	Review of Process after implementation (did it work), date	Hard Cost Savings	Soft Cost Savings
Jan-16	Ashely Herbert	Robert Casias	342	Save Tech time/reduce the amount of missed cultures.	<input type="checkbox"/> Inventory <input type="checkbox"/> Motion <input type="checkbox"/> Waiting <input checked="" type="checkbox"/> Over-Production <input checked="" type="checkbox"/> Over-Processing <input checked="" type="checkbox"/> Defects/Rework <input type="checkbox"/> Skills	CPA pulling the UAC pending to speed up turn around times and save on paper. CPA would be printing 1 page compared to the 2-6 pages the technical staff prints.	\$500 in printing cost and \$500 in time savings.	5-hrs/month	n/a	CPA completes saving all 5-hours for Technical Staff.	Y	n/a	100%	Jan-16	Ashely Herbert	All is working as defined.	\$0	\$1500/year in labor.
Jan-16	David Crouch	Robert Casias	340	This project will save a significant amount of money on storage (cost unknown).	<input type="checkbox"/> Transportation <input type="checkbox"/> Inventory <input type="checkbox"/> Motion <input type="checkbox"/> Waiting <input checked="" type="checkbox"/> Over-Production <input checked="" type="checkbox"/> Over-Processing <input type="checkbox"/> Defects/Rework <input type="checkbox"/> Skills	Front-Office will only store paper records for 60-days per policy and send nothing to Iron Mountain.	No storage to Iron Mountain/multiple boxes per year from F.O.	n/a	n/a	Cost of storage saved.	Y	n/a	100%	Jan-16	David Crouch	All is working as defined.	\$2500/year	\$0
Jan-16	Matthew Salazar	Robert Casias	341	This will eliminate the time spent on stocking if all is standardized.	<input type="checkbox"/> Transportation <input type="checkbox"/> Inventory <input type="checkbox"/> Motion <input type="checkbox"/> Waiting <input checked="" type="checkbox"/> Over-Production <input checked="" type="checkbox"/> Over-Processing <input type="checkbox"/> Defects/Rework <input type="checkbox"/> Skills	The phlebotomy carts are to be standardized to ensure all staff stock them the same way and not leave prior to restocking.	Standardized process will save 10 min per day/ per staff in stocking/non-productive time (\$5K)	150 min/day	n/a	n/a	Y	n/a	100%	Feb-16	Matthew Salazar	All is working as defined.	\$0	\$1,800/year in labor
Feb-16	Jennifer Carlson	Robert Casias	340	Procedure to use the same wooden applicator sticks to check the clot and to place a drop of blood on slide, save money. Applicator Stick Wood \$3.36 each (box of 1,000) and Tube Hematorin Mylex Clad Plain \$7.22 (box of 1,000).	<input type="checkbox"/> Transportation <input checked="" type="checkbox"/> Inventory <input type="checkbox"/> Motion <input type="checkbox"/> Waiting <input checked="" type="checkbox"/> Over-Production <input checked="" type="checkbox"/> Over-Processing <input type="checkbox"/> Defects/Rework <input type="checkbox"/> Skills	Checking pediatric tubes for clot with wood stick applicators, then make a slide using a capillary tube, leaving little to no sample for the analyzer or repeat.	Approximate savings not yet calculatable.	on-going project										
Apr-16	Sarah Peterson	Robert Casias	343	Reduce unnecessary spending on large dollar ticket items.	<input type="checkbox"/> Transportation <input checked="" type="checkbox"/> Inventory <input type="checkbox"/> Motion <input type="checkbox"/> Waiting <input checked="" type="checkbox"/> Over-Production <input checked="" type="checkbox"/> Over-Processing <input type="checkbox"/> Defects/Rework <input type="checkbox"/> Skills	PH Gross Room will utilize already purchased slide storage drawers from Mountain Storage. First batch was reused April 2016 (15).	PH Gross Room did not have to purchase \$12K in slide storage bins.	n/a	\$12,000	n/a	Y	n/a	100%	Apr-16	Sarah Peterson	All is working as defined.	\$12,000 annually	\$0
####	Erica Penfold	Robert Casias	340	Reduce unnecessary spending on reagents and minimize reagent expiration.	<input type="checkbox"/> Transportation <input checked="" type="checkbox"/> Inventory <input type="checkbox"/> Motion <input type="checkbox"/> Waiting <input checked="" type="checkbox"/> Over-Production <input checked="" type="checkbox"/> Over-Processing <input type="checkbox"/> Defects/Rework <input type="checkbox"/> Skills	PH Lab (w/Siemens help) will undergo a Chemistry reorganization for all testing supplies which will include moving at least 10 analyzers to a single analyzer.	Savings - TBD/process has just started.	n/a	TBD	Lab/1340	Y	n/a	75%	Jul-16	Erica Penfold	Bridge working as implemented.	TBD	\$0
16-Jun	R. Casias	Robert Casias	347	PH will not replace current PCB Supervisor and will move staff (8) under CPA.	<input type="checkbox"/> Transportation <input type="checkbox"/> Inventory <input type="checkbox"/> Motion <input type="checkbox"/> Waiting <input checked="" type="checkbox"/> Over-Production <input checked="" type="checkbox"/> Over-Processing <input type="checkbox"/> Defects/Rework	Supervisor oversight is not necessary at the PCB and can be cared for by CPA Supervisor.	Annual savings \$60K	n/a	n/a	347 and 342	Y	n/a	100%	16-Jun	R. Casias	Process to move staff has already begun.	\$60K annually	\$0

Initiative Tracking: Evidence of Action *Linked to Financial Variance Reporting*

Home Budget Variance Review (R/O) X

J K L M N O P Q R S

24
25
26
27

Explorer

28

Process

29

198

Workflow

199

200

201

202

203

204

July 2016					
Efficiency #	Monthly Cost Reduction in Dollars	Cost Reduction Description	YTD Reduction as a %	Efficiency Reduction Description	Monthly Cost Avoid/Soft Sav
1	3,800	ED in CDS is currently performing medical drug screens, but because of competency maintenance and workflow issues, would like to move to the Lab. The lab is looking at how it can be done at a lower cost as well.	50%	-	-
3	375	Instead of aliquoting ESR QC into vacutainers on a daily basis, I believe that we could aliquot the appropriate level of QC and re-use these vials for a couple days, or up to a week depending on the stability of the sample.	33%	-	-
-	-		0%	-	-
-	-		0%	-	-
-	-		0%	-	-
-	-		0%	-	-

Budget Variance Review Efficiency

Initiative Tracking: Evidence of Action

Organizational Level

2016 TriCore Process Efficiencies Inventory

Area/Director	EFF #	DEPT #	Process	Efficiency Initiative	Strategic Initiative Alignment				Financial Impact Area			Implementation Timeline (Qtr./Yr. - Qtr./Yr.)	2016 Annualized Cost Savings Projection
					Optimize Delivery of Medicine	Optimize Financial Efficiency	Drive Cultural Improvements	Sustain Business Growth	Redeploy/Retool Staff - FTE's	Supplies Cost Reduction	Cycle Time		
Eric Carbonneau	1	110	AU680 Move	Move the AU680 from EAC to automation; consolidate testing from GCs to the 680; reallocate 1.0 FTE from EAC to automation which can be cross trained for other areas.		X		X	X		X	Q4/2015 to Q1 /2016	\$12,000 in supplies, \$55,000 in reallocated FTE
	2	110	TBGOLD move	Move TBGOLDS to automation from microbiology; shut down DSX in Microbiology.		X				X		Q1/16	\$ 8,000.00
	3	110	HIV confirmation	Move HIV confirmation to in-house testing	X	X				X		Q1/2016 to Q2/2016	\$ 9,000.00
	4	110	Vitamin D move to automation	Move vitamin D screening to automation and create new test code for the D2/D3 method	X				X			completed Feb 2016	\$55,000 in reallocated FTE
	5	130	WaspLab Implementation	Implement the WaspLab automation in microbiology	X		X	X	X			Q3/2015-Q2/2016	\$ 156,000.00
	6	130	Enteric Pathogen testing-	Implement molecular enteric pathogen testing and eliminate stool culture.	X	X			X		X	Q1/2016-Q2/2016	\$100,000 in increased revenue
	7	165	Implement new Coagulation platform- ALL Locations	Complete RFP and then replace instruments at each site. Replacement requires purchase, validation, interfacing and training.		X		X		X	X	Q1/2016-Q2/2016	\$96,760
	8	220	Transcription Outsourcing	Outsourced Transcription to Accustat		X			X			Q3/2015	\$20,000 plus 380 sqft of space
	9	150	Forensic Testing elimination	Eliminated and outsourced Pre-employment testing. Improved TAT for Medical Testing.	X	X			X	X	X	Q3/2015	\$196,000
	10	140	Requisition scanning for	Went paperless in histology for the	X	X			X	X		Q3/2015	

Strategic Initiatives: Why It Works

- Improvement ideas come from those performing the tasks
- Staff encouraged and expected to be a part of the change
- Aggregation of Marginal Gains
 - “Identification of a number of areas in which you can make small improvements, which all add up to something much greater”



Motivation: Employee Incentive Program

EFFICIENCY

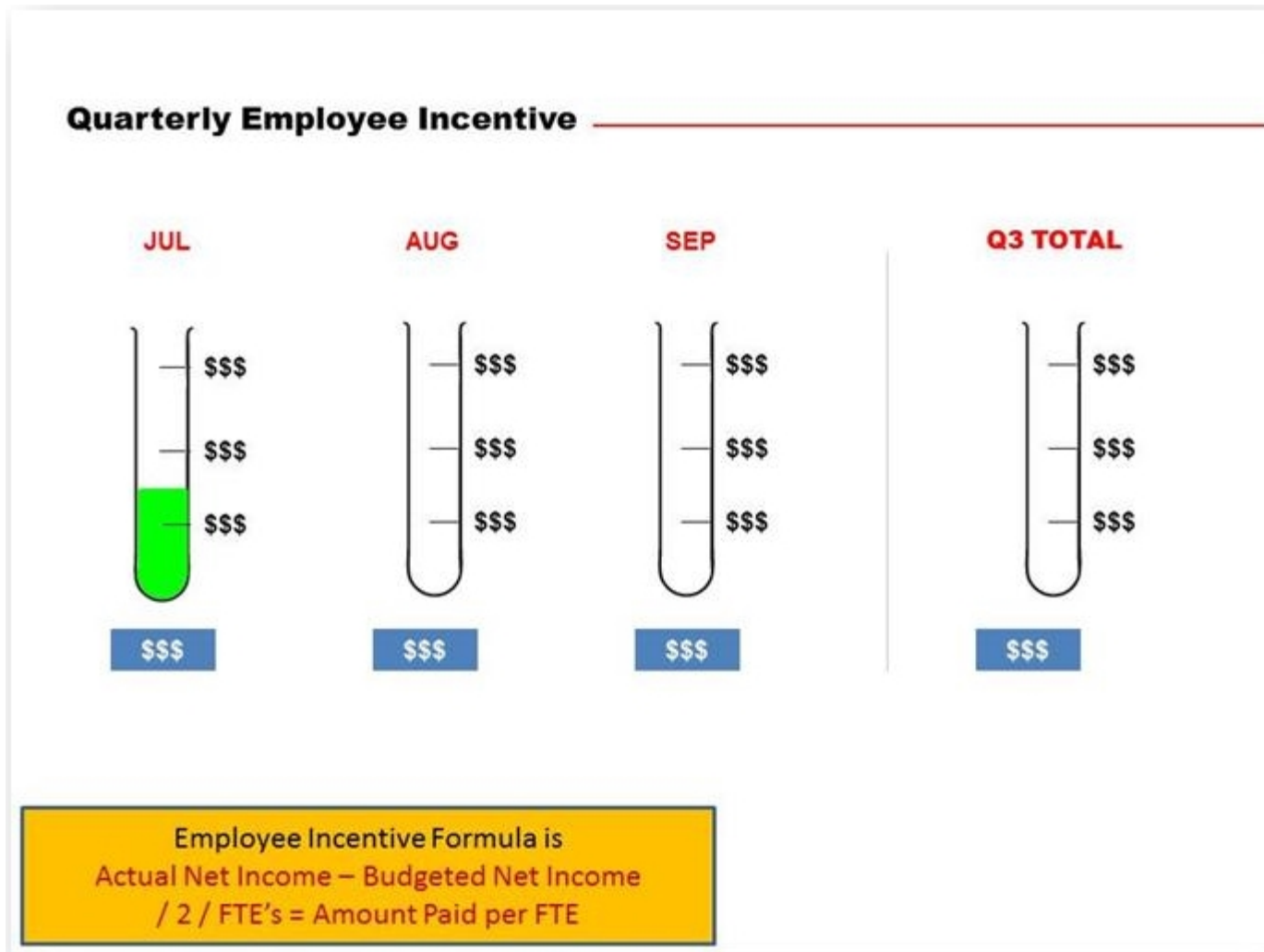
OBJECTIVES

- To promote a culture of thrift and teamwork
- To reduce and eliminate waste
- To boost employee engagement
- To reduce employee turnover
- To share success with those who create it

Calculation Formula:

- $\frac{\text{Actual Net Income} - \text{Budget Net Income}}{2} / \# \text{ Employees}$
- (\$250 per quarter max)

Motivation: Employee Incentive Program



Moving the Needle: Application of Initiative Based Goals



Improvement Initiative: Blood Culture Collections

Challenge: Duplicate or unordered blood culture collections from ED

- ED collecting blood culture bottles as part of collection protocol, but not ordering for testing until physician evaluated patient
- Blood culture bottles sent to the lab for holding, awaiting orders.
- It's fairly common to have a large number of blood culture sets that are collected but never have orders received.
- Often if patient is admitted, the receiving unit does not know that the ED collected blood cultures, so samples are recollected
- Identified as opportunity based on waste of resources:
 - Waste of blood culture bottles and collection devices - Hard cost
 - Waste of time in inventory management of collected sets – Soft cost
 - Impact to patient with multiple, unnecessary collections – Patient safety

Improvement Initiative: Blood Culture Collections

Initiative: Submitted as a collaborative process improvement initiative to reduce the number of unnecessary collections and better utilization of samples when collected

Approach: Select one pilot site, with the intent of rolling out best practices across hospital system

- Improved communication between ED, Phlebotomy, and CPA to reduce unnecessary collections.
 - Discussions with ED Medical Director to re-evaluate/update sepsis criteria for collections
- Improved communication between ED, admitting unit and Lab to ensure previously collected specimens are used as appropriate.
- Approximately **\$30,000** in annual **hard cost** savings projected for pilot site. Gains in efficiencies and decrease in soft cost with reduction of managing duplication/unordered specimens.

“Sometimes It’s the little things...”

- Samples labeled from the ED were problematic: labels too long, do not fit tubes well, etc.
- Lab staff submitted efficiency suggestion to change the labels used based on soft cost savings (CLA time)
- Lab manager worked with ED leadership to select a better fitting and less costly option
- End result was a selection of an appropriate fitting label and a savings realized of over **\$100,000** in **hard cost** and approximately **\$9,000** in **soft cost** annually
- This same model was then implemented across the eight hospital system for an even greater cost and efficiency savings

Improvement Initiative: Improving Reagent Efficiency

Challenge: Reduce reagent wastage on automated chemistry\IA platform.

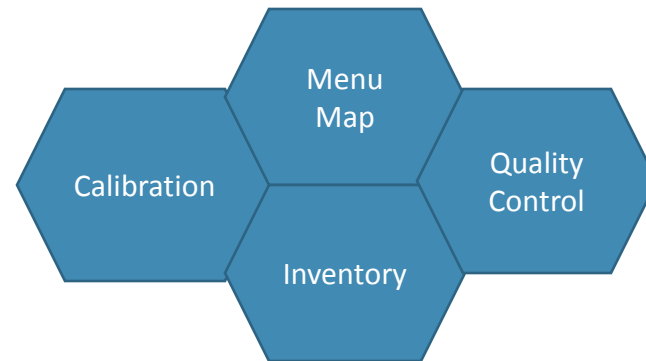
Dimension Vista System Efficiency	
TriCore Reference Laboratories	
Data Range: 02/15/2016 to 03/14/2016	
Patient Results:	96.88%
Quality Control:	2.26%
Calibration:	0.62%
Waste (Open Well Stability):	0.24%

ADVIA Centaur System Efficiency	
TriCore Reference Laboratories	
Date Range: 2/27/2016 to 3/29/2016	
Patient Results:	87.5%
Quality Control:	10.9%
Calibration:	1.5%
Waste due to Open Pack Stability:	0.00%

Improvement Initiative: Improving Reagent Efficiency

Approach: Requested vendor come in and work with our Technical Specialists to review the following:

- Menu Map
- Quality Control Frequency
- Calibration Frequency
- Inventory Management



“Usually It’s the little things...”

- Remapped 20 assays –

Projected Inventory Reductions		
Reagent Cartons		
Annual reduction in reagents shipped:	277 cartons	2.1%
Reduction in on site inventory:	75 cartons	2.3%
Reduction in refrigerator space requirements:	1.8 cubic ft	1.5%
Calibrator Cartons (Excludes Open Channel Methods)		
Annual reduction in calibrator shipped:	87 cartons	14.3%
Reduction in on site inventory:	29 cartons	14.3%
Reduction in refrigerator storage space requirements:	0.2 cubic ft	22.2%
Reduction in freezer space requirements:	0.1 cubic ft	5.5%

- Moved to as needed Quality Control for 11 assays

Table 3: Urine Assays and Quality Controls Analysis				
Assay	QC Product	Average Number of Patients per Instrument per Day	Projected Reduction in Annual QC Points by running "As Needed"	Projected Annual Reduction in Reagent Flexes
AMY	URINE CHEM	0.1	1387	7.7
CA	URINE CHEM	4.3		
CRE2	URINE CHEMISTRY	69.6		
MG	URINE CHEM	0.4	876	9.7
MALB	URINE CHEMISTRY	52.6		
PHOS	URINE CHEM	0.5	730	2.2
BUN	URINE CHEM	1.6		
URCA	URINE CHEM	0.5	730	2.6
UCFP	URINE CHEMISTRY	20.0		
Total Reduction in Annual QC Points			3723	
% Reduction in Quality Control			19.2%	

“Usually It’s the little things...”

- Reduced Calibration Trigger from 3 days to 1 day
- Reduced QC frequency for Immunoassay from twice a day to once a day
- Moved low volume assays from the Vista to Centaur platform to reduce reagent costs.

Results

- Reagent Savings- \$105,832
- Staff Time Savings- 46.5 hours/year or 0.2FTE
- Space Savings- reduction in 2.2 cu/ft of refrigerator space
- Turn Around Time Impact-
 - Baseline 95% on time
 - Post Implementation 97% on time

Summary of Outcomes: Organizational Level

- 205 efficiency initiatives submitted YTD
- 24 that have resulted in positive gains to either hard or soft savings
- Cumulative Savings to Date
 - \$1,657,871 in Hard Savings
 - \$302,993 in Soft Savings
- This is a gift that keeps on giving...

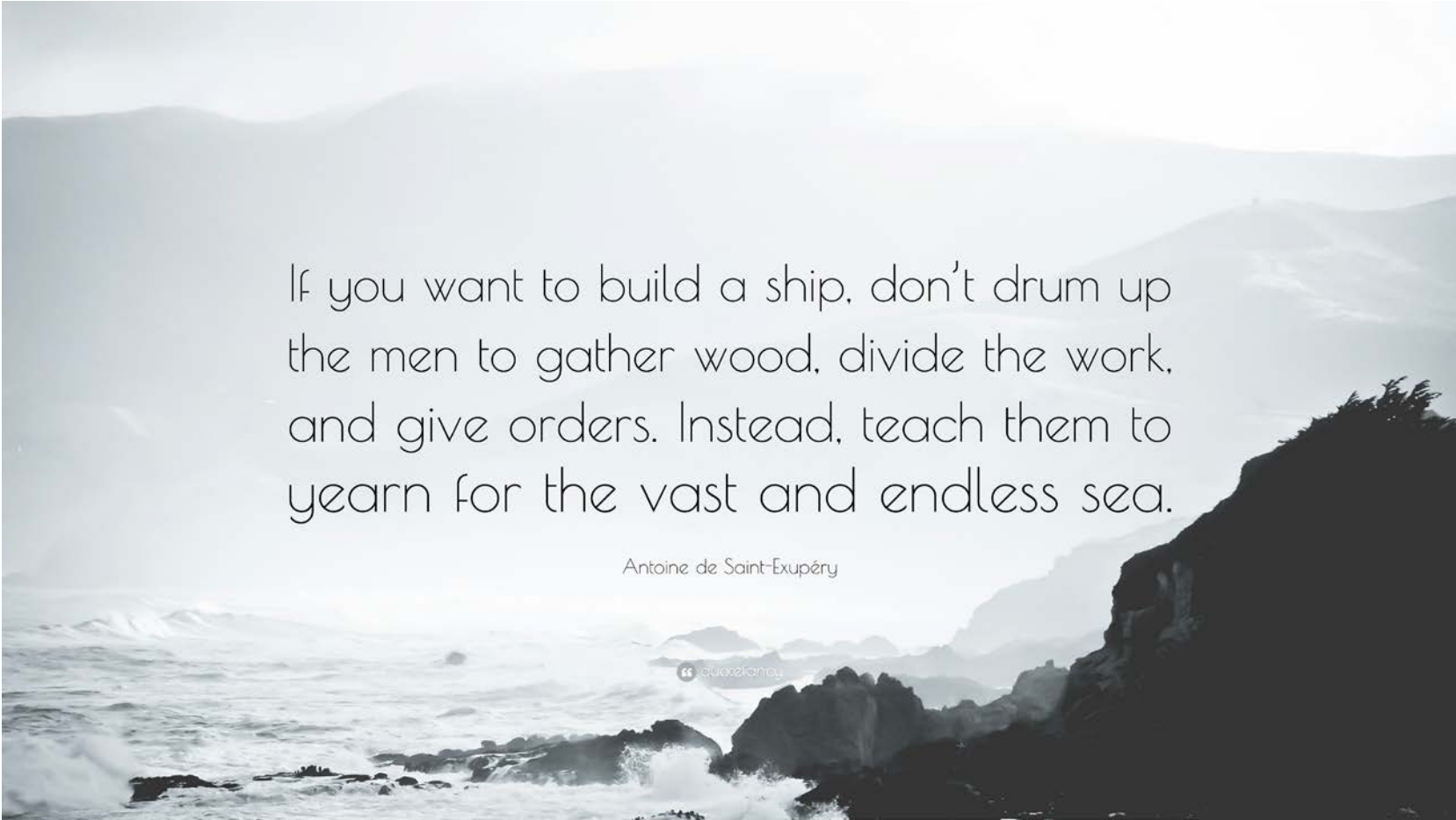

Challenges

- All business lines and divisions aligning to the goal
- Communication
- Employee engagement
- Repurposing of soft cost savings
- Sustainment



Next steps

- Continue communicating and celebrating successes
- Focus on means of keeping staff motivated and engaged with goal
- Further collaborations with hospital business lines for systems based initiatives
- Build on successes and learn from shortcomings
- Plan for long-term successes through strategic initiatives



If you want to build a ship, don't drum up the men to gather wood, divide the work, and give orders. Instead, teach them to yearn for the vast and endless sea.

Antoine de Saint-Exupéry

“ quoteofantoy

Questions?

