Analytics for Laboratory Medicine

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Agenda

Welcome and Introduction

Overview of Analytics

Specific Uses of Analytics

Strategy to Sell the Story

Q&A

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Introduction to Analytics

What Analytics is all about

Capturing meaningful and useful data through analytics is an art as much as it is a science.

You can have the best data possible (the Science) but if no one reads it what good does it do (analytics, the art behind the Science)?

How do you create effective reports, dashboards etc. to drive decision-making?

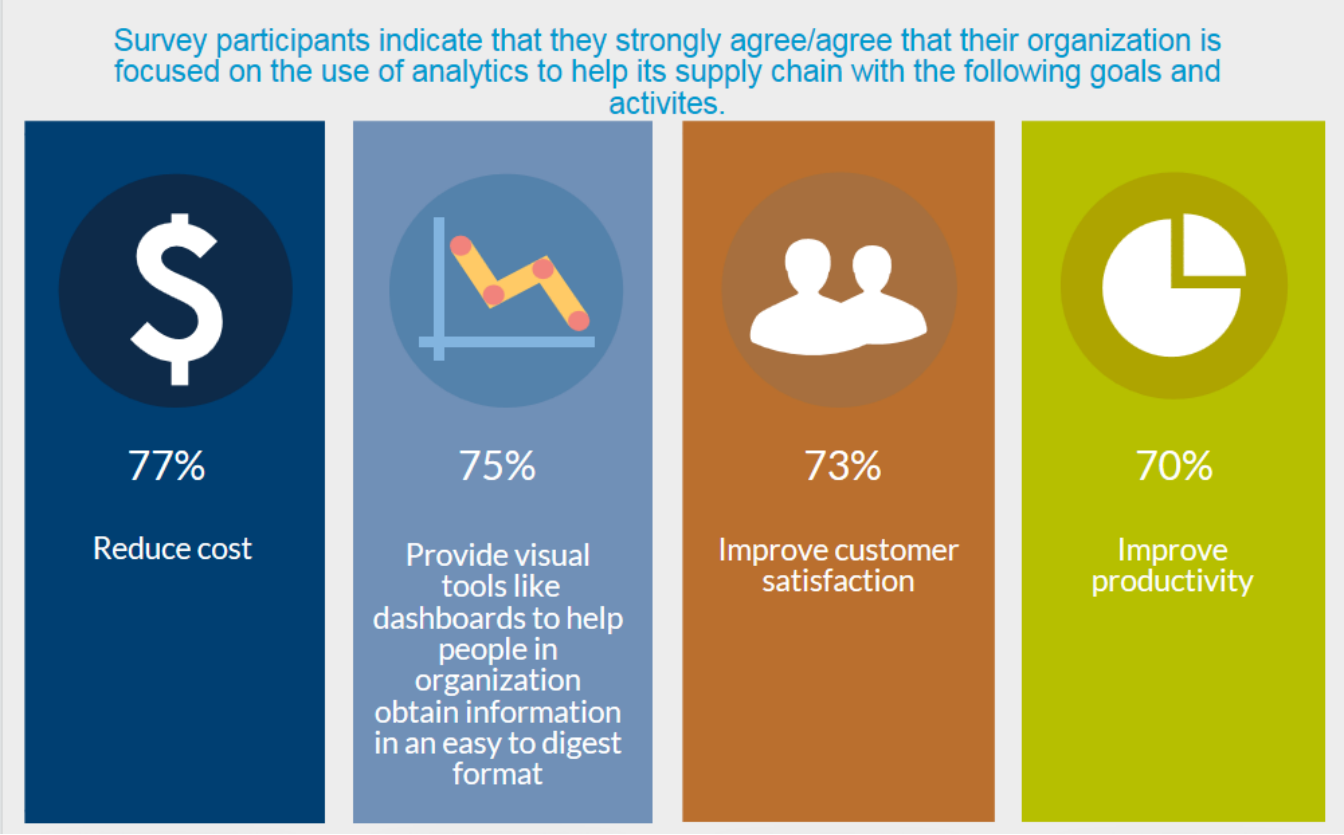
Why do you struggle with information overload from too many disparate data bases, inaccurate (or at least conflicting) information?

All of this leads to less than optimal productivity from tools (analytics) that were supposed to make life easier and better!

Various Types of Analytics

- Revenue Cycle Management
  - Payment based Analytics
  - Payer comparisons
  - Includes speed of payment and amount of payment/discounts
- Supply Chain
  - Analytics drives these initiatives at many organizations
  - Supply Chain analytics is evolving rapidly and many organizations are struggling to keep up and understand what they are receiving
- Clinical Data Analytics – Dashboards
  - Clinical Dashboards to show expectations vs. actuals
  - Set sensitive enough to detect failures before the customers do

Top Reasons to Use Analytics



(From APQC 2016)

Important Success Factors for Analytics

- You must have the data available for “mining” and do so in a fashion that you know it is correct (e.g. not missing any sets of data because of site, or time/date constraints on the data base)

- You must be able to Plot the Data.. Plot the Data.. Plot the Data.. Meaning that you can show it visually in a fashion that is meaningful to the audience and accurately depicts any sub-populations of data that might be missed looking at the aggregate data

- Any interpretation of the data along with any statistical tools used to prove validity of the data which leads toward the ability to interpret the results (e.g. T-test, P-test, Capability testing, etc.)

- Provide ongoing data in a format or forum that is appropriate, such as a live dashboard, or a frequently updated board
- MUST have the support of CEO, COO, CFO, CIO, CNO, or anyone that can be perceived as a roadblock remover (or a roadblock)

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Understand Your Organization

What Analytics (if any) are you currently using in your organization, and where (why)?

- Are you sure there is no one using analytics currently?
  - Areas to check with include:
    1. Clinical Research
    2. Marketing
    3. Customer Service (in ALL areas of your organization)

- Are you associated with any IDN which might be using analytics at a corporate area (look in the same areas mentioned above)?

- Is there any contracts (outside vendors) providing services?
  - Check with accounting; they usually know who they are paying

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Pilot Analytics Program

Analytics are not free, even if you are doing it internally.

- Treat it as a one-off before spending lot so of money on software or personnel.
- Make sure that your first “pilot” is an easy win to get the traction you need to sustain it
  - If it is a failure you will have trouble getting support for a second round
  - Keep it simple and straight forward
  - More complex or difficult projects should be after you have experience and have proven yourself
- Make sure there is organizational value
  - Because you are interested in it doesn’t mean anyone else is
  - If there isn’t a value to the organization your supporters will leave you
  - Ask “what is important” and “why’ before proceeding
  - performance measures that management values (e.g., revenue, costs, risk, or customer satisfaction) are good places to start
- Be sure you “have mined” or “can mine” baseline data before proceeding
  - Post analytics mean little if there is nothing to compare them with
  - Before and After clearly presented can be a quick win!

Examples of Simple Analytics

Analytics Need to Start Off Simple!

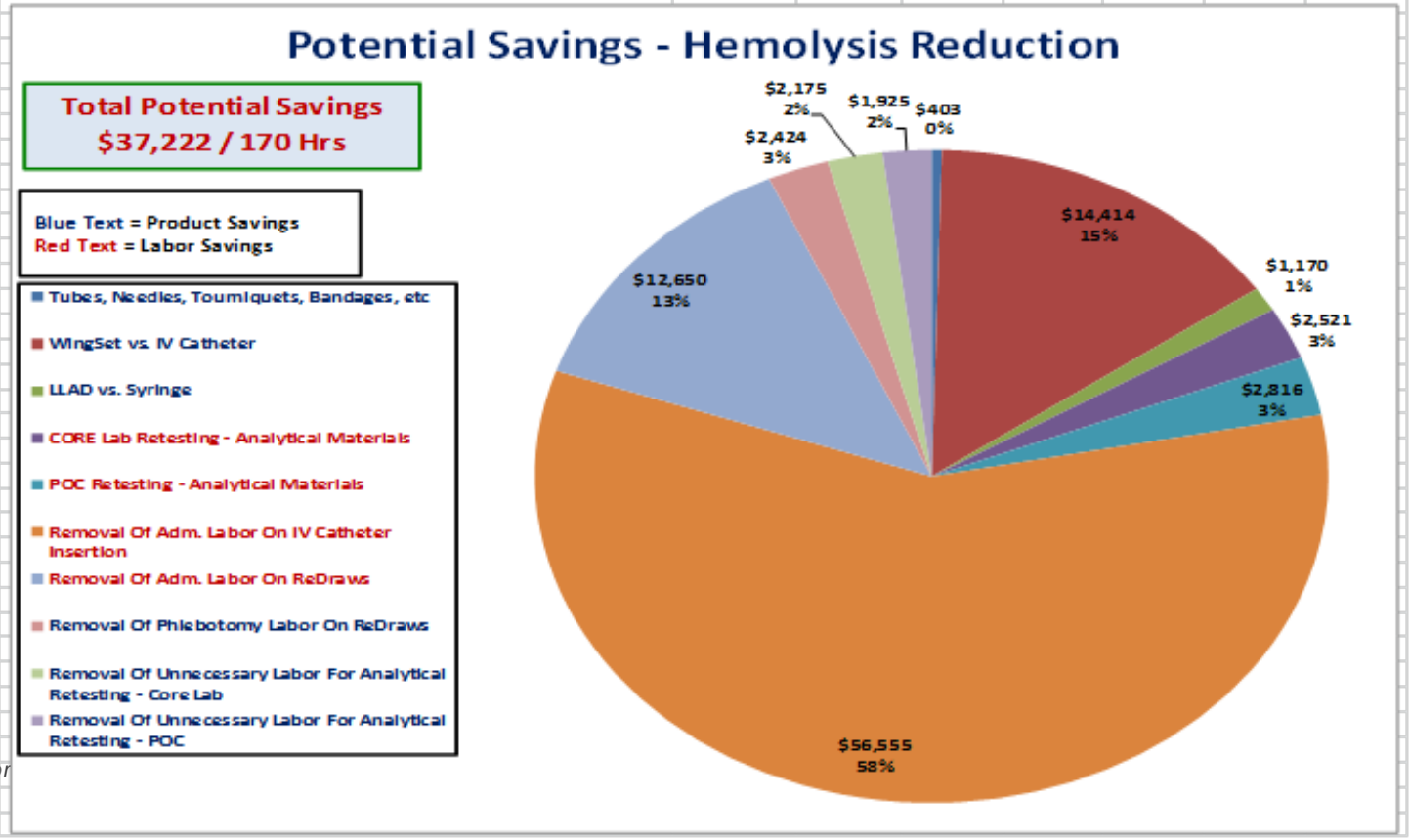
- Don’t make it so complicated you never get started
- Make sure it is presented in a format the audience will understand
  - Nurses do better with pictures and graphics
  - Finance likes spreadsheets and details
- Show the value across the whole organization
  - Who else in the organization might be interested in this?
  - Who else might benefit from this?
- The following are examples of various types of analytics outputs that you can use
  - All of these were generated with Excel
  - Note the synergy beyond the initial reason for utilizing analytics

Table Example

	FY10 Q2 GAPP $M	Nonrecurring Items $M	FY10 Q2 Adjusted $M
Operating Expenses	$351	$(22)	$329
Operating Income	$127	$22	$149
Income From Continuing Operations	$73	$15	$88
Diluted EPS From Continuing Operations	$0.33	$0.07	$0.39
Critical Care Technologies Segment Profit	$111	$15	$126
Medical Technologies and Services Segment Profit	$16	$7	$23

Pie Chart Example

Recap Of All Savings		
Tubes, Needles, Tourniquets, Bandages, etc	$403	Materials
WingSet vs. IV Catheter	$14,414	
LLAD vs. Syringe	$1,170	
CORE Lab Retesting - Analytical Materials	$2,521	
POC Retesting - Analytical Materials	$2,816	
Removal Of Adm. Labor On IV Catheter Insertion	$56,555	Labor
Removal Of Adm. Labor On ReDraws	$12,650	
Removal Of Phlebotomy Labor On ReDraws	$2,424	
Removal Of Unnecessary Labor For Analytical Retesting - Core Lab	$2,175	
Removal Of Unnecessary Labor For Analytical Retesting - POC	$1,925	
Combined Potential Savings	$97,053	
Total Hours	1,170	



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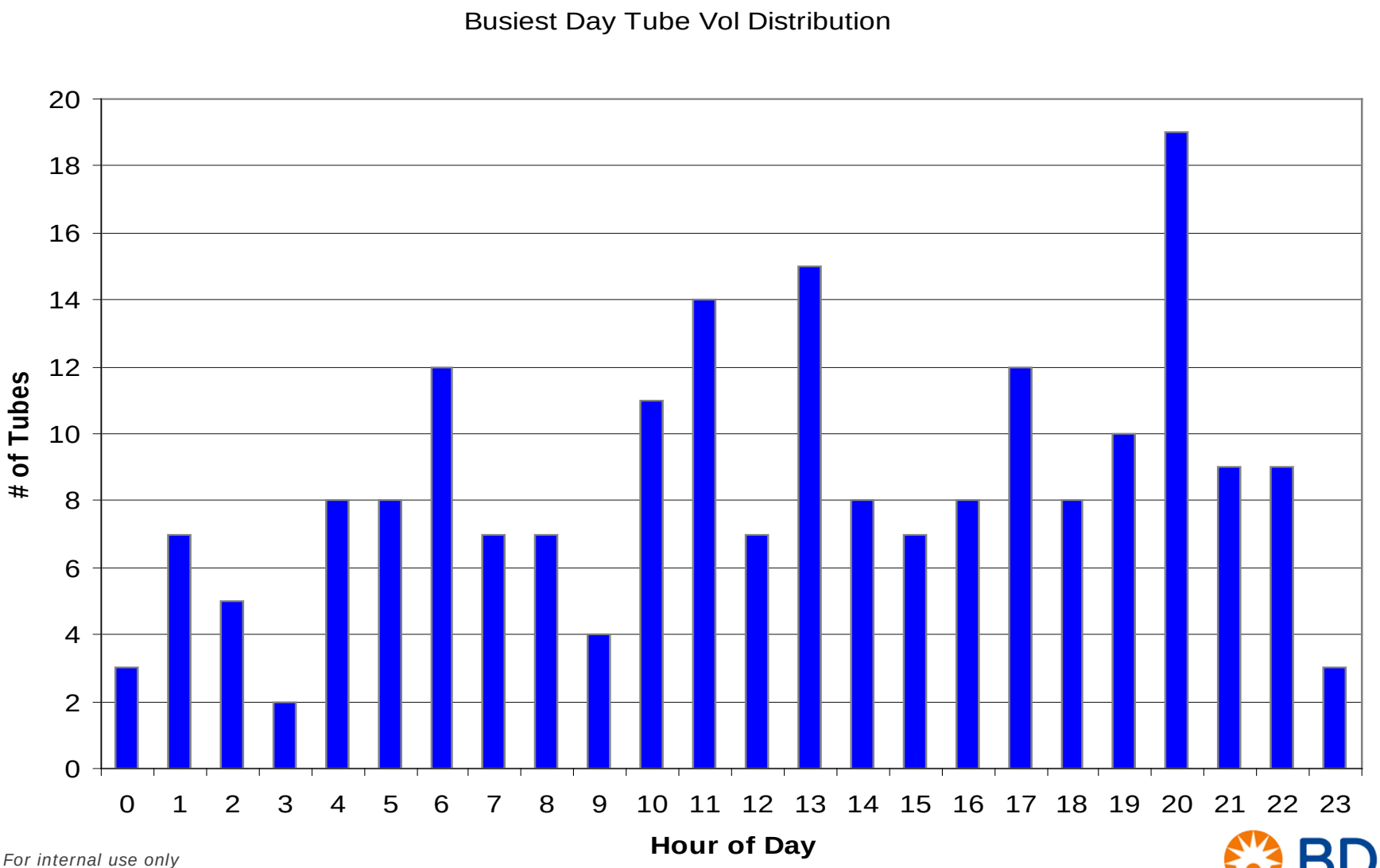
Bar Graph Example



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Thank you