Histology Workflow Redesign to Address Specimen Volume and Staffing Requirements in a Reimbursement Challenged Environment

Carlene Keane-Phipps

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Key Learning Objectives

1. To learn how to determine when there is a need for Performance Optimization

2. To learn how to identify and prioritize needed improvement actions and how to engage staff by asking the questions – What, Why, Who, When, and How?

3. To learn how to develop an action plan that addresses immediate needs.

4. To understand common pitfalls that can occur throughout the process and the need for post implementation review.

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Who is CBLPath?

- 2003 Founded Westchester NY

- Providers of specialized Anatomic Pathology and non-GYN Cytopathology services

- Annual revenue of $4.5M
  - Total # of Employees: 44

- Cell-line model

- **2010 Sonic Healthcare USA**

- 2012: 394,000 accessions

- 304 employees: Administration, Compliance, HR, Lab Operations, Marketing, Pathologists, Finance

"Understand the history of operation before you embark enacting change"

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2011 Critical Changes to Our Business

- Changing customer mix
- Change in product mix
- Capacity constraints
- NY licensing requirements
- FTE cost

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Question: It takes too long to get this done…

Why can't we change this- make it simpler, faster, easier???

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THE REVOLUTION……

What Do We Need To Do?

- Become more efficient
- Cost reduction
- Improve service
- Maintain and/or improve quality
- Balance the changing healthcare environment with organizational strategic initiatives

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The Approach

- Steering Committee Formation
- Kick-off meeting
- Internal SWOT
- Data collection and analysis
- Identify Consultant
- On-site evaluation
- High-level findings reported
- Prioritized Recommendations
- Project implementation plan
- Continuous Review

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Tools: SWOT

Strengths

- Multiple processing lines (cells)
- Utilization of barcode from accessioning to grossing
- Point of cassette generation at grossing
- Utilization of barcoding to generate slides at microtomy

Weaknesses

- Lack of automated specimen tracking past grossing
- Large batch tissue processing
- Manually-generated QA and tracking logs
- No end task QA check/confirmation
- Real-time defect/error tracking/resolution
- Cross-trained staff - both lab aides and technical

Opportunities

- Use LIS to reduce gaps in specimen tracking
- Develop small batch processing (accessioning to slide distribution) to match instrument capabilities
- Increase cross-training

Threats

- Increased defects and errors due to batch size
- Long cycle for rework of defects
- Increased TAT for cases
- Reduction in employee satisfaction
- Loss of clients due to extended TAT

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Tools- Just Do IT

Short Term "Just Do Its"

|		Activity	Assigned	Date	Time
Page 1	1	Assign all cases to Pathologists in computer prior to distribution		7/19/2011	
	2	Revise RUSH/STAT and QA Flag List (Global and TC)			
	3	Field trip to each other's world			
	4	Revise Pending List			
	5	Combine 1st Floor TC manifest and QA Log			
	6	Determine date of transition to numerical filing of slides and blocks			
Page 2	7	Expand QA Dashboard for 2nd Floor "process use"			
	8	Case "Flag" divide into "Do not report" vs. "Preliminary Report"			
	9	Daily production report dashboard			
		Action Items			
	1	Determine Pathologist case assignment criteria			
Page 3		Implementation activities (B)			
	1	**Automate** when case flag is resolved slide distribution is notified to release slides/assign to Path			
	2	Determine future state employee schedule needs			
Page 4	1	Assign dots to current state			
		Add time to process (average estimate and unit case) Step-current average time if extensive or future, add range			
	2	80:20			
	3	Add/modify future state map (pink post-its) Continue development of implementation plan Assign resource			
	4	Timeline			
	5	Communicate to organization Project update "WITFM"			

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Receiving Before

Pre-Technical – Top Changes

- Streamline reconciliation/specimen triage with centralized accessioning
- Redesigned Work space
- Streamlined courier drop off process
- Eliminated excess "quality" checks
- Cross trained and aligned schedules to workflow

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Pre-Technical (Receiving) After

Courier Check In
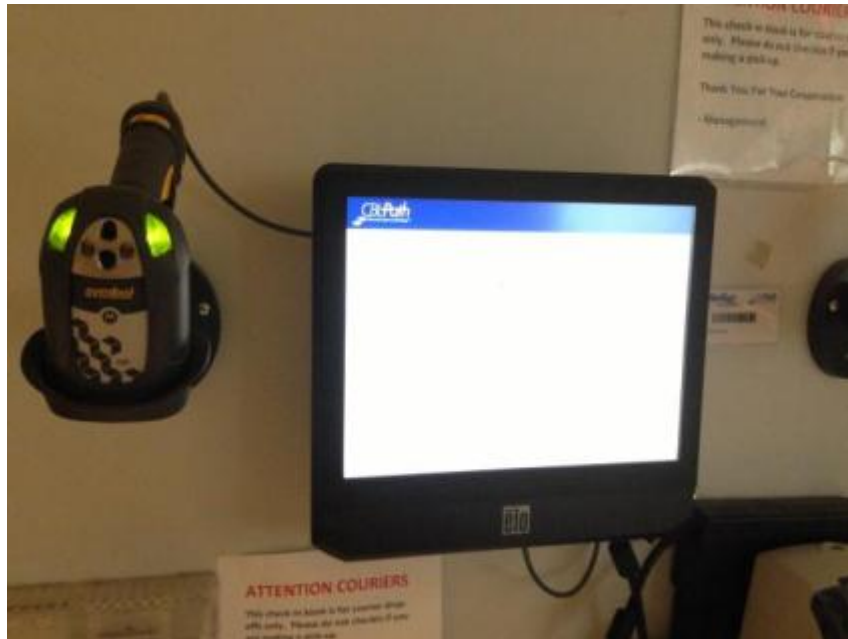
Specimen Receipt Counter

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Significant improvement in efficiency = 25 % in some areas

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Team used flip charts to visualize the process

Histology – Top 5 Changes

- Redesigned space at grossing
- Updated cassette printers
  - Printing reduced from 29 to 18-20 sec, capacity increase/FTE
- Automation reduced manual Chain of Custody
- Implementation of the Specimen tracking at Embed and Microtomy (Lab Flow)
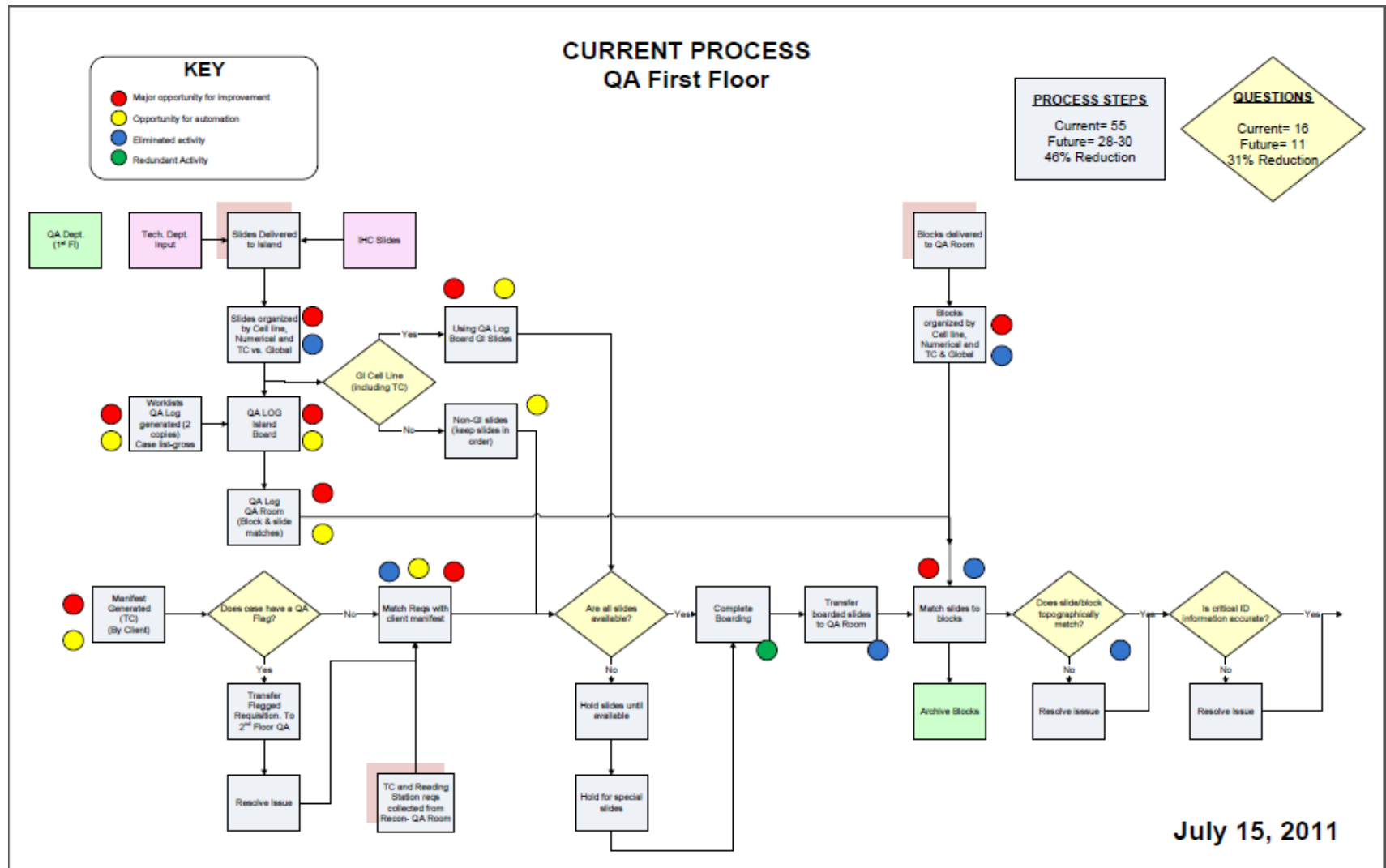- Automate IHC orders and slide labels

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Grossing – Before and After
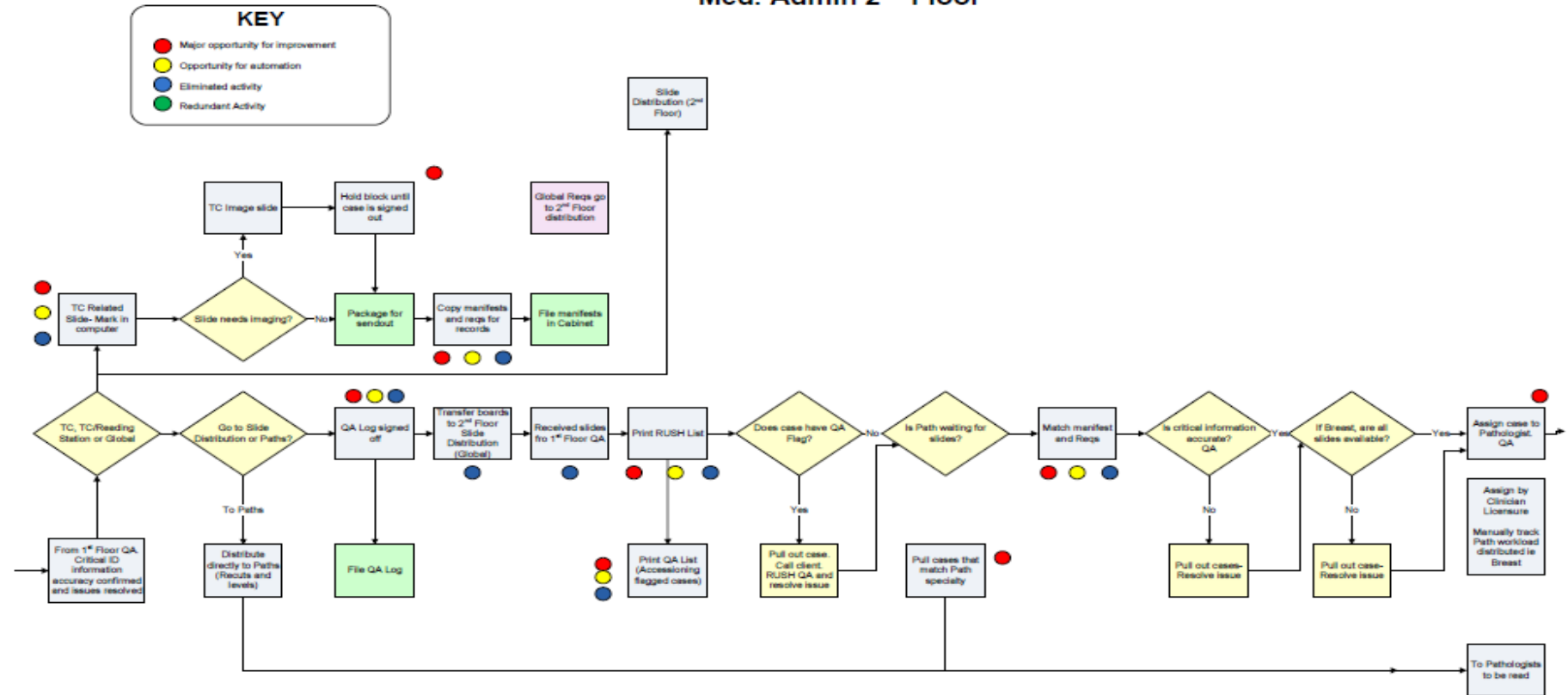
Before – Cell Line

After - Grossing

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QA &Slide Distribution - Mapping the Process

Mapping the Process (continued)

CURRENT PROCESS
Med. Admin 2nd Floor

KEY
- 🔴 Major opportunity for improvement
- 🟡 Opportunity for automation
- 🔵 Eliminated activity
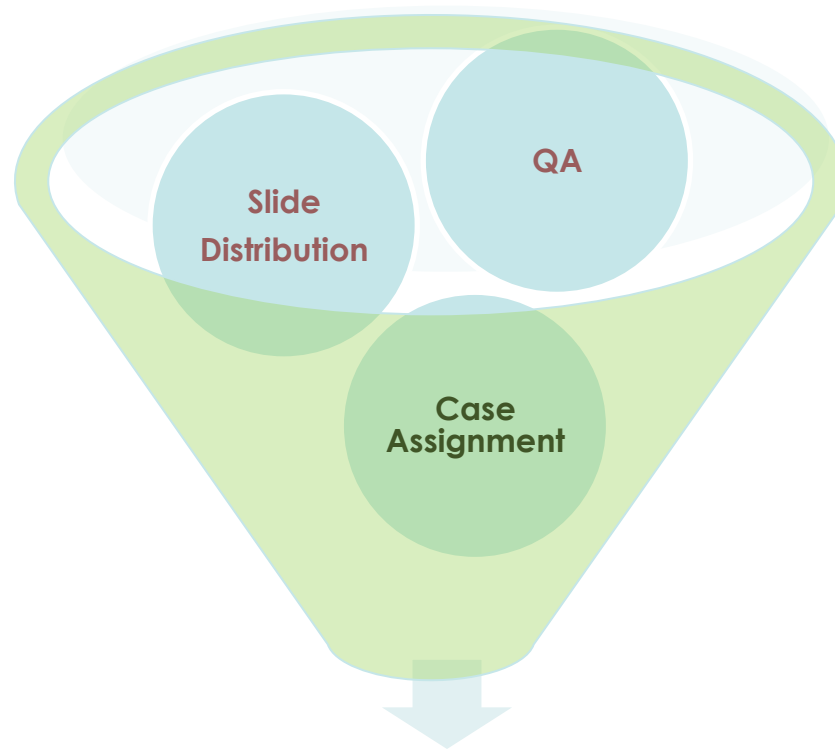- 🟢 Redundant Activity

July 15, 2011

BEFORE

PROCESS STEPS

Current= 55
Future= 28-30
46% Reduction

QUESTIONS

Current= 16
Future= 11
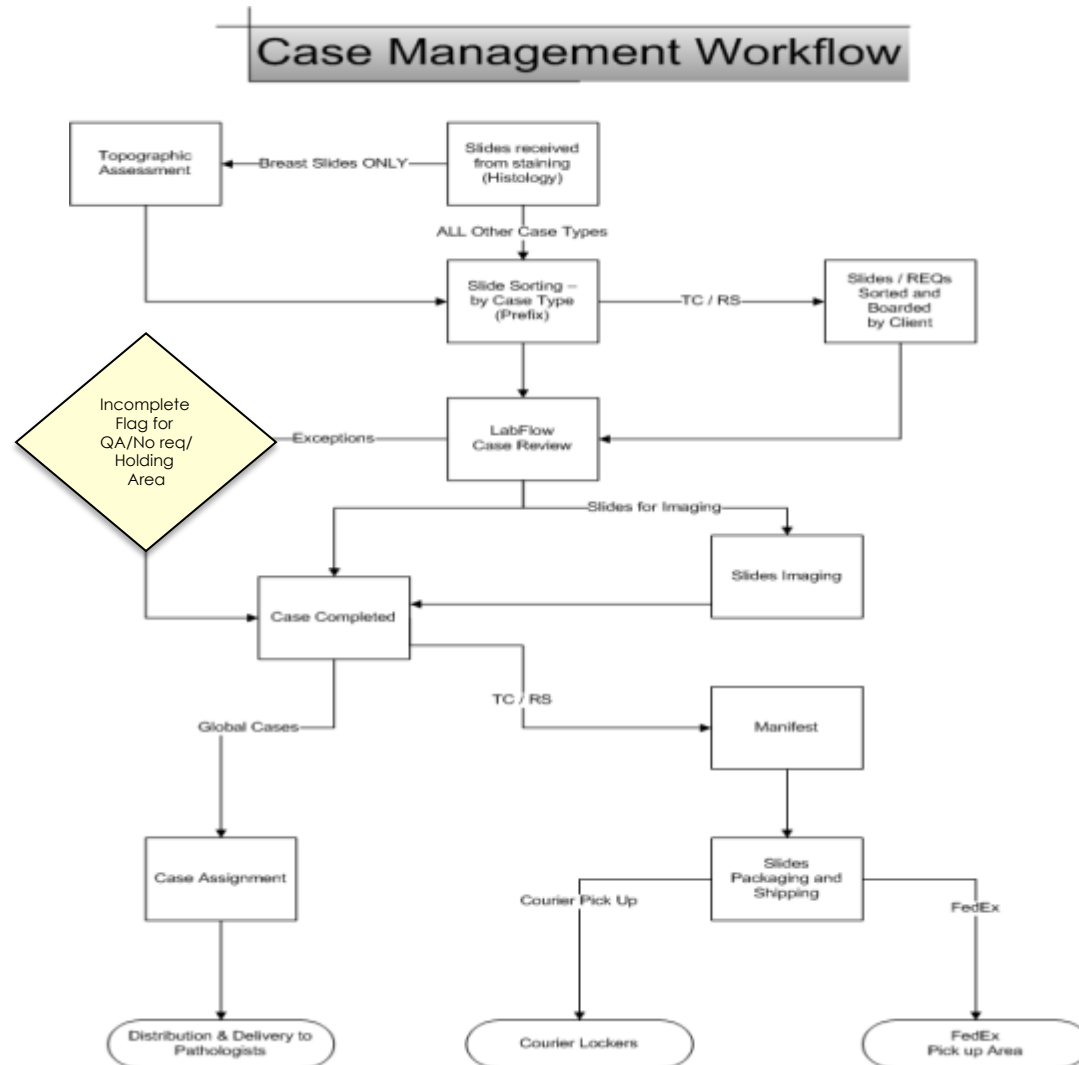31% Reduction

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The Process – Case Management

Slide Distribution

QA

Case Assignment

CASE MANAGMENT

Current - Mapping

Process Steps
Current = 6
89% Reduction

Questions
Current = 1
94% Reduction

Case Management Workflow

- Topographic Assessment
- Breast Slides ONLY
- Slides received from staining (Histology)
- ALL Other Case Types
- Slide Sorting – by Case Type (Prefix)
- TC / RS
- Slides / REQs Sorted and Boarded by Client
- Incomplete Flag for QA/No req/ Holding Area
- Exceptions
- LabFlow Case Review
- Slides for Imaging
- Slides Imaging
- Case Completed
- Global Cases
- TC / RS
- Manifest
- Case Assignment
- Slides Packaging and Shipping
- Courier Pick Up
- FedEx
- Distribution & Delivery to Pathologists
- Courier Lockers
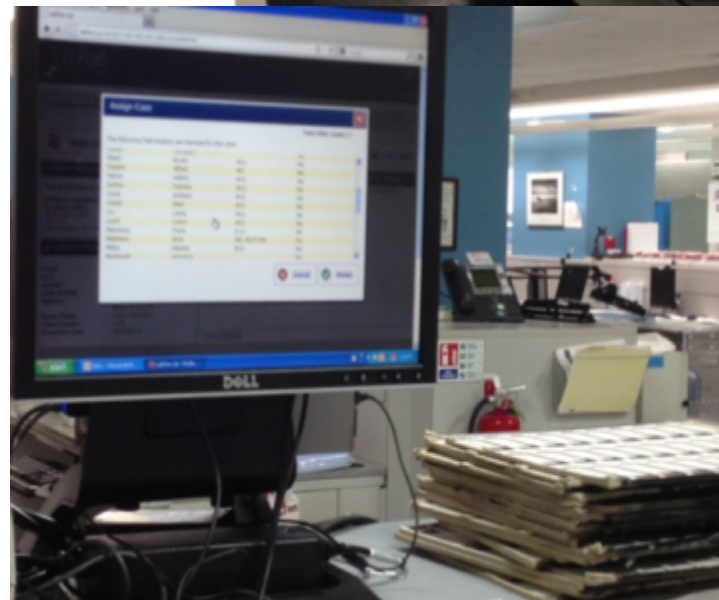- FedEx Pick up Area

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Case Management – Top 5 Changes

- Automate function in LIS
- Combine two departments
- Cross train Staff
- Align Staff schedule to slide arrival
- Redesign work space

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QA & Distribution to Case Management

Before

After

Results

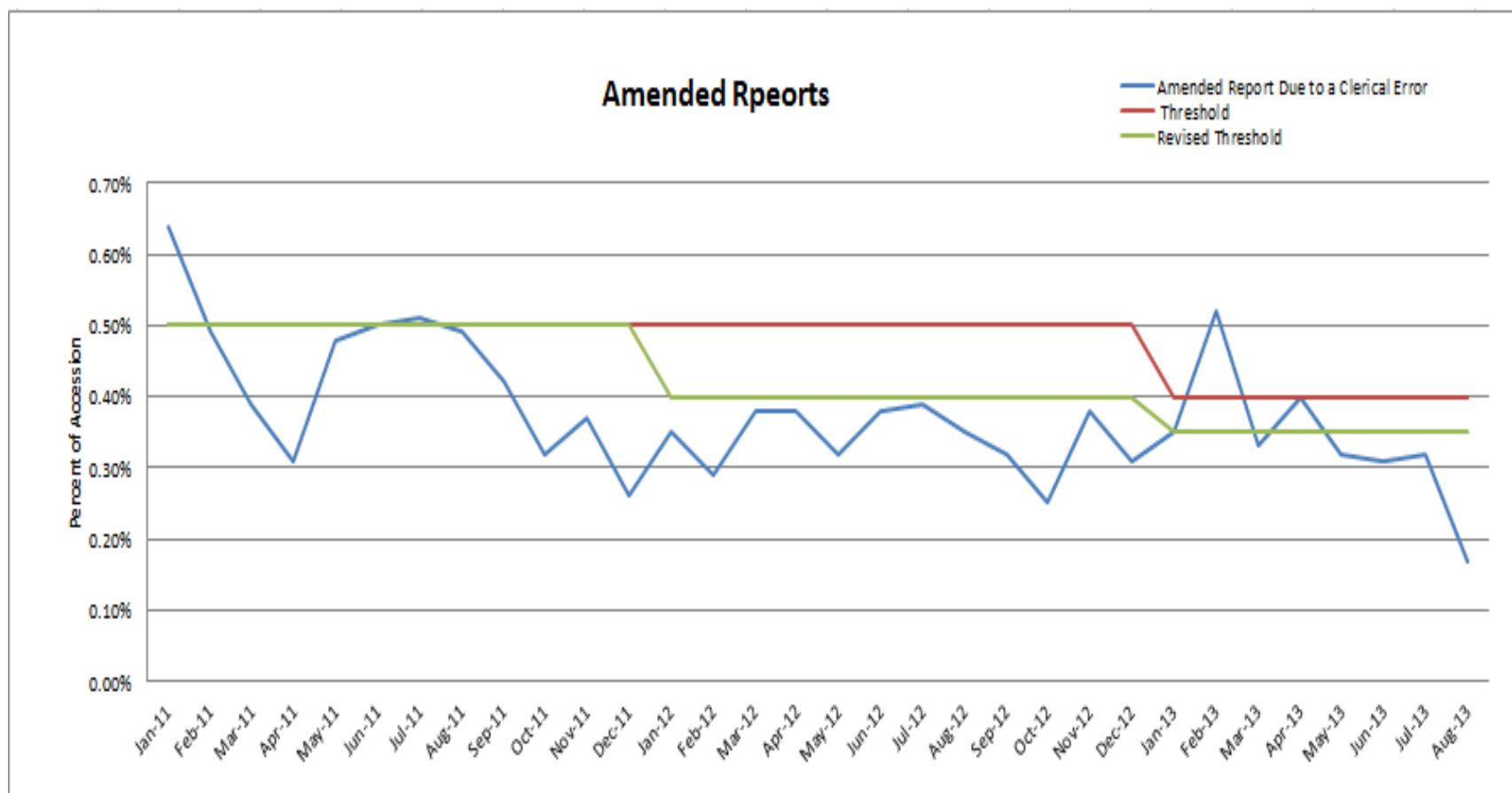## October, 2011 (Midway) Recommendation update:

- 41% - completed
- 36% - in progress
- 8% - will be implemented in future
- 4% - determined not applicable, or already in place
- 11% - Reviewed and rejected or "No Go"

August 2013 Recommendation update:

- 96% - completed
- 2% - in progress
- 2% - will be implemented in future

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**Lesson learned:
"If it can be done,
just do it!"**

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Quality Impact

Since 2011, threshold has been lowered each year.

Budget Impact

Department FTEs	2011*as of June	2013
Reconciliation	9	4
Data Entry	18	17
Requisition Scanning	4	NA (now in Pre-tech)
Grossing	18	17
Histology	38	31
Lab Aides	4	4
QA	12	8* now case mgmt.
Slide Distribution	5	NA * now case mgmt
Total	108	81

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Budget Impact

Healthcare Reform

88305
88342
88185
88312
88361

Additional proposed reductions for 2014

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Review

Common Pitfalls

- ☐ Underestimating timeline
- ☐ Aligning expectations is critical
- ☐ Get the right team in place at the right time
- ☐ Change is painful – Where is HR & IT?
- ☐ Remember the 80/20 rule it will save you time

Post Implementation Review

- ☐ 88305 reduction impact offset by improvements
- ☐ Automate what and where you can
- ☐ IT is essential
- ☐ Process improvement is continuous

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baby steps...
to big dreams.

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Q & A

Disclaimer

The Beatles song Revolution is played during this presentation. I do not own this song nor do I make any profit from using it in this presentation.