Listening to the Voice of the Customer at North Shore LIJ Laboratories: What We've Learned About Quality and How We Use that Knowledge to Change Internally and Externally

Presented by

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Goals and Objectives

- **Presentation Purpose :**
  - To share experiences of listening to the various types of laboratory clients throughout the years, and how it has helped us to implement robust quality programs and metrics in our own laboratory.

- **Learning Objectives:**
  - To identify the various types of laboratory customers and to develop the specific tools to capture their needs and expectations.
  - To develop and communicate appropriate and meaningful metrics to meet quality standards based on customer expectations
  - To utilize existing methods and to develop any necessary tools to enhance and measure the new standard of quality in our own lab.

- **Take Home Message**
  - Attendees will learn to effectively listen to the VOC and implement those strategies which will both meet their needs and enhance the standard of quality in your own lab.

Challenges

- Increased competition and aggressive tactics from commercial laboratories
- Insurance companies actively directing the testing away
- Revenue per test is decreasing
- Demands for information and service are increasing
- ICD10 is here

Opportunity

- Over 70% of all decisions related to patient diagnosis and treatment are based upon lab data
  - Labs create the majority of objective and highly validated patient information
  - Lab info delivered to the right person at the right time can improve patient outcomes and lower costs
- Opportunity relies in our brand recognition
  - We offer experience in effectively integrating work from other non-affiliated entities in an efficient and cost effective manner
  - Other value added services including management of client lab processes
  - Health System Based Reference Laboratory services inclusive of clinical expertise and round the clock services.

NSLIJ Health System

Key Facts

- 19 hospitals (More than 6,400 hospital and long-term care beds)*
  - 5 tertiary
  - 3 specialty
  - 9 community
  - 2 affiliates
- Owner/operator of North Shore-LIJ CareConnect Insurance Company, Inc.
- 3 skilled nursing facilities
- Over 400 ambulatory and physician practices
- 34 nursing home/senior living affiliates
- The Feinstein Institute for Medical Research
- Comprehensive continuum of care
- Strategic alliances
  - Barnabas Health
  - CASAColumbia
  - Cleveland Clinic
  - Karolinska Institute
  - Montefiore Medical Center
  - Yale New Haven Health
- 8 million people in service area
- Over 4 million patient contacts
- 147,731 ambulatory surgeries
- 276,495 hospital discharges
- 27,581 births
- 687,915 emergency visits
- 670,958 home care visits
- 101,960 ambulance transports
- $7.8 billion annual operating budget
- 14th largest healthcare system in the US
- 54,000 employees
  - More than 10,000 physicians*
  - 11,000 nurses*
  - More than 1,500 medical residents and fellows
- More than $686.4 million in community benefit (10.9 percent of operating expenses) by participating in 1,966 unique programs, serving more than 1.9 million community members and training 24,862 health professionals.
- Recipient of the National Quality Forum's 2010 National Quality Healthcare Award
- Hofstra North Shore-LIJ School of Medicine

Does not include affiliate organizations

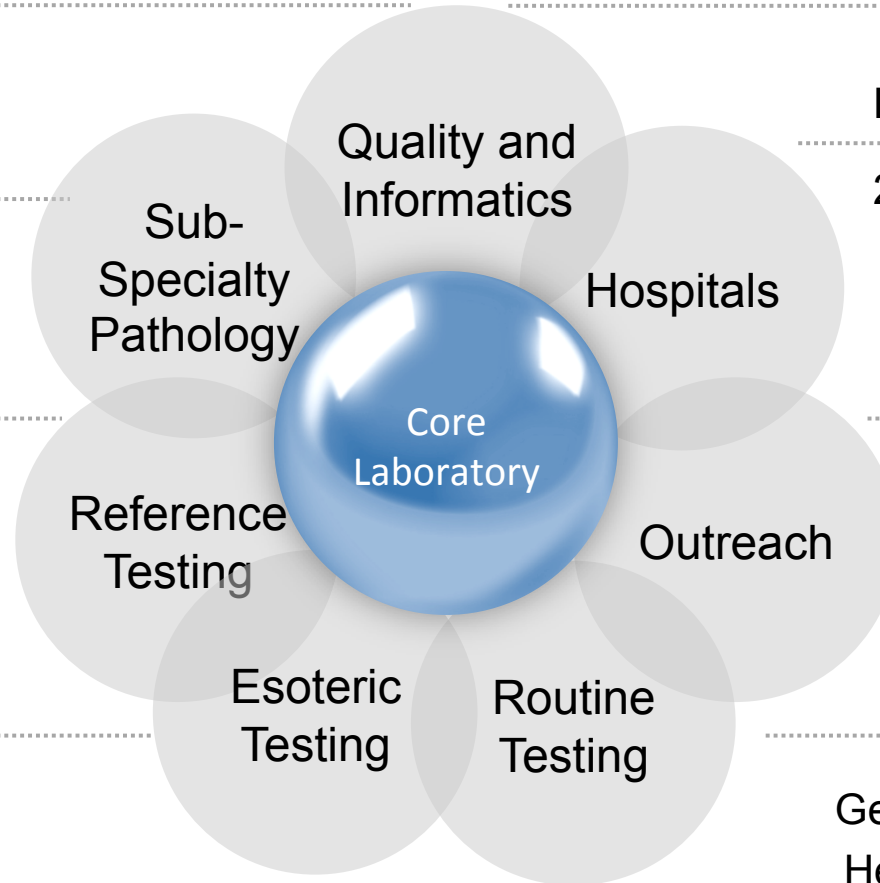# Laboratory Network North Shore LIJ
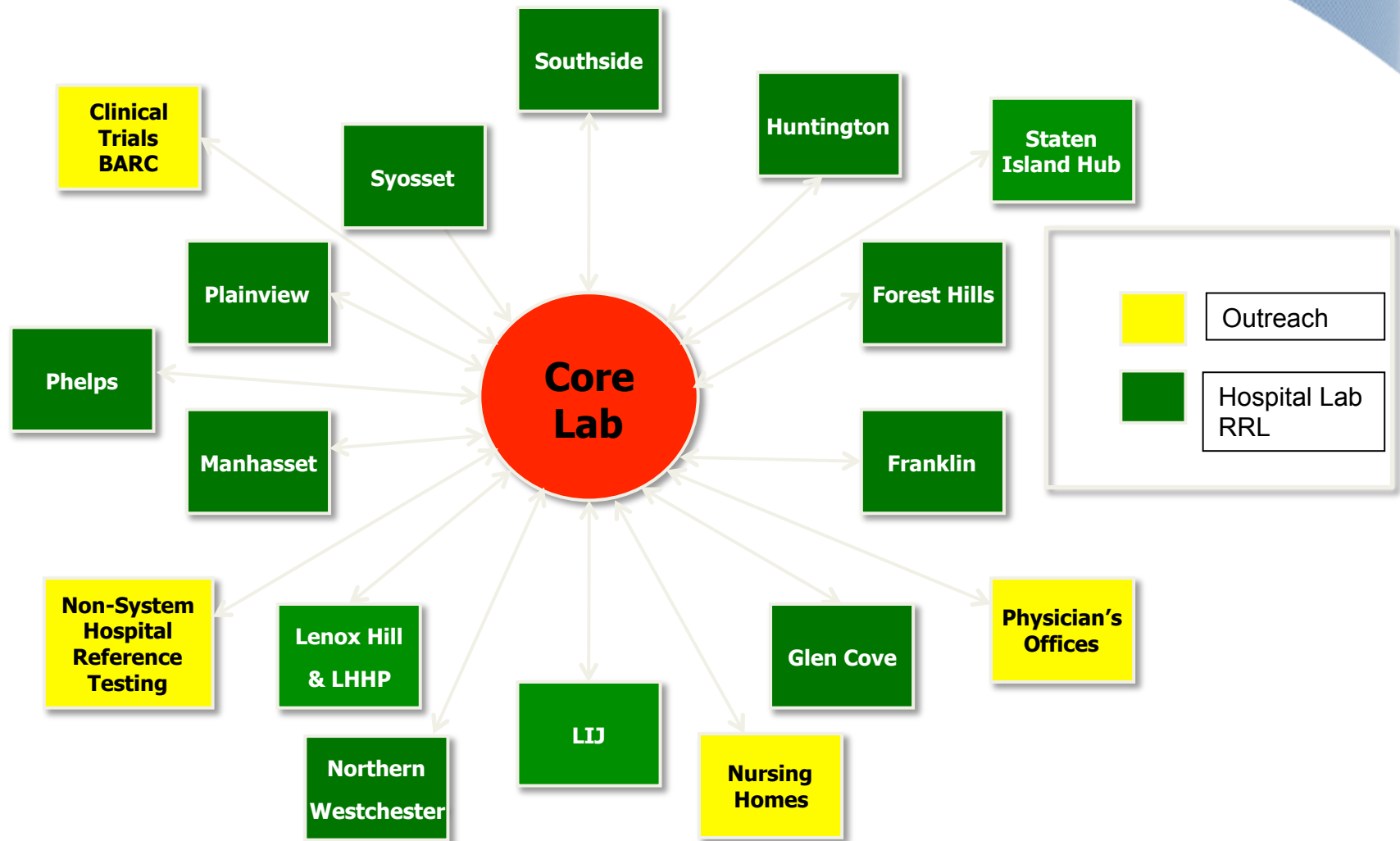
Core Laboratory Service Line

High Volume
Fully Automated

GI, Breast, Skin, GU, Liver, HemePath
Over 40 Pathologists

All Send-out Tests

Molecular
Microbiology/Virology
Cytogenetics, Genomics

Central LIS Support
Lab Informatics Division

20-40% Hospital Related
Laboratory Tests

Growth Engine
Business Development
Sales, Logistics , PSCs, and Client Service

General Laboratory Testing
Hem, Sp. Hem, Chem, Sp. Chem, Protein Chem, Coag, Sp Coag, Dx Immuno

Quality and Informatics

Sub-Specialty Pathology

Hospitals

Core Laboratory

Reference Testing

Outreach

Esoteric Testing

Routine Testing

System Laboratories Operations

- $350 Million Annual Operating Budget
- 2000 FTEs/ 80+ Pathologists
- 20 Million Billable Tests
- 180,000 Surgical Specimens
- 30 + Patient Service Centers
- Multiple Ambulatory Sites

The Road to Success

What is Quality?

Quality may be defined as an effective and efficient delivery of service that meets and exceeds client expectations.

- Quality is as perceived by those paying for the service or product

- Success is achieved by an enhancement of outcomes and most importantly perceived value.

Steps in Ensuring Quality

- Identify Internal and External Customers
- Research the Voice of the Customer to determine their expectations
- Design and Implement Quality Products and Services
- Develop Necessary PI Programs and Metrics
- Establish an Image of Being a Superior Quality Provider

Evolution of Client Base – Over Time

- 1999 – RRL
- 2001 – Clinical Trials
- 2002 – Nursing Homes
- 2004 – Outreach Clients
- 2004 - PSCs
- 2010 – Present
  - Faculty Practices
  - Cooperative Partnership with Other Hospital Networks
  - Other Non-Health System Hospitals
  - Physician Networks
  - Urgicare Centers

Stakeholder Perception of Quality

Physicians

- Lab Results
  - Quality/TAT
- Evidence based consultation
- Data across continuum of care
- 7.8 M Tests
- $150 M Revenue

Hospitals

- Lab Results
  - Quality/TAT
- 2 M Tests
- $34 M Revenue

Reference Testing

- Lab Results
- Test Menu
- 670K
- 18M Revenue

Nursing Homes

- Lab Results
  - Quality/TAT
- Access to Results
- Phlebotomy Expertise
- 518 K Tests
- $5.2 M Revenue

Clinical Trials

- Testing Expertise
- Consultation
- 100K Tests
- $2M Revenue

Voice of the Customer

- Customers "voice" their wants and preferences in terms of desired outcomes
- This feedback let's us know what they want from our existing processes
- Such needs must then be translated into new process requirements that are specific, "do-able", and measurable

Tools to Capture Client Needs and Expectations

- Probe for Understanding
  - Directly Meeting with Clients
    - Executive Meetings/Committees
    - Sales Interaction and Feedback

- Surveys
  - Physician Satisfaction
  - Patient Satisfaction

- Listening to Complaints

- Contractual Agreements

Current Client Metrics Expectations

- Each Client has Different Expectations and Needs
- Leads to a Different Set of metrics
- Same Metrics Presented Differently
- Metrics Collected with Different Frequencies
- Presented Different Metric Layouts
- Metric Data Presented at Different Levels

Delivery of Client Specific Data and Metrics

- Different Means of Metric Data Delivery
  - Hard Copy
  - Manually via Sales Representatives
  - Electronically via email
  - Meeting with Clients
  - Presentations to Clients
  - Via Web Based Tool
- Client Feedback

System Hospital Metric Evolution

Faster!

STAT!

Accurate Results!

By AM Rounds!

Metric	Early	Current	Comments
ED TAT	97% <60min Ave 24min	95% <45min Ave21 min	Hospital Lab and Medical Leadership
STAT TAT - RRL	94%<1hr Ave 31min	94%<45min Ave 25min	Hospital Lab and Medical Leadership
Corrected Reports-RRL	557 DPMO	190 DPMO	Hospital Lab and Hospital Admin Leadership
Routine TAT Testing at Core Lab	98.9% in 4hr	98.5% by 6am	Hospital Lab and Hospital Admin Leadership

System Monitor Dashboard
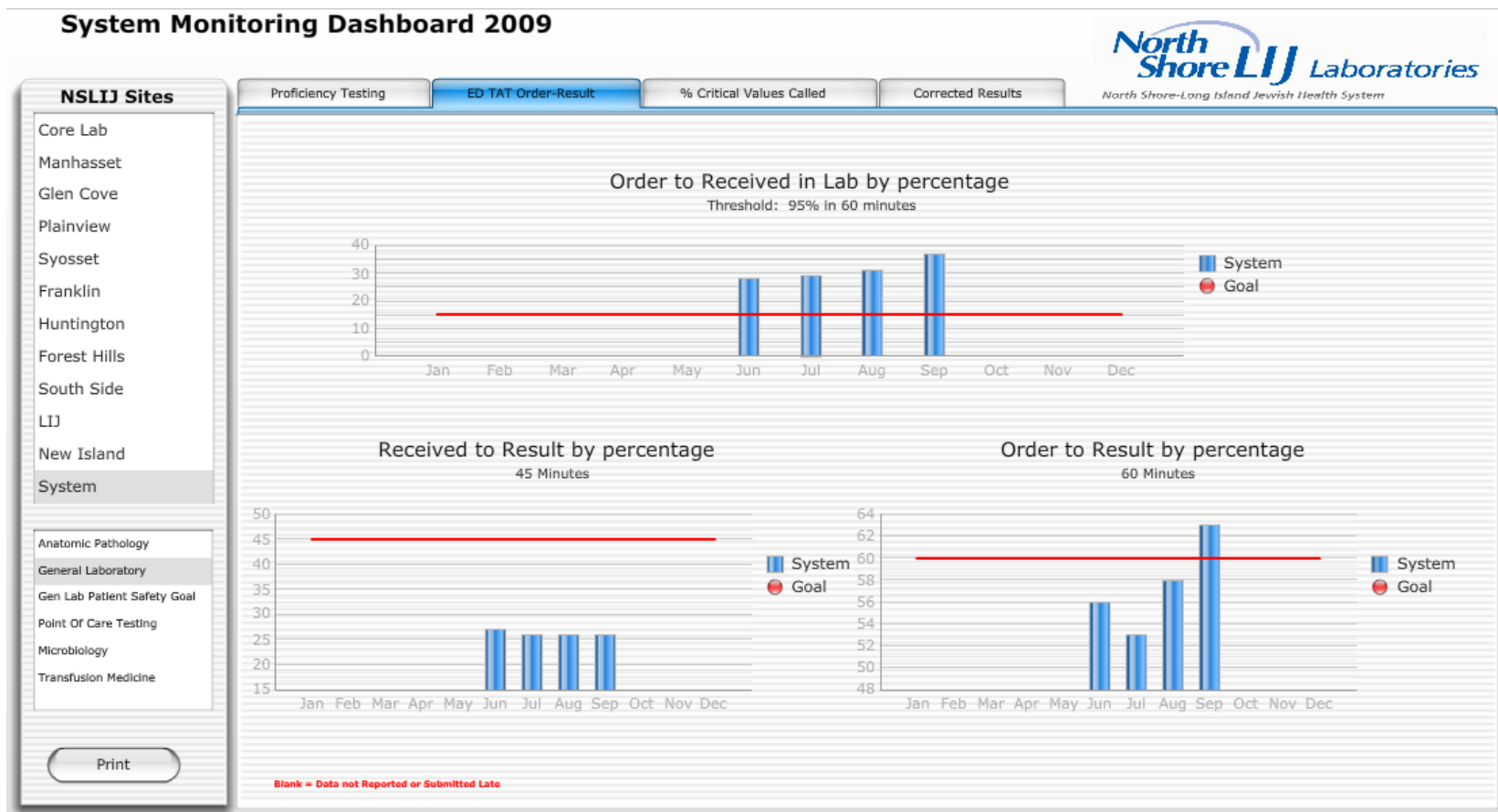
System Lab Corrected Reports
General Laboratory
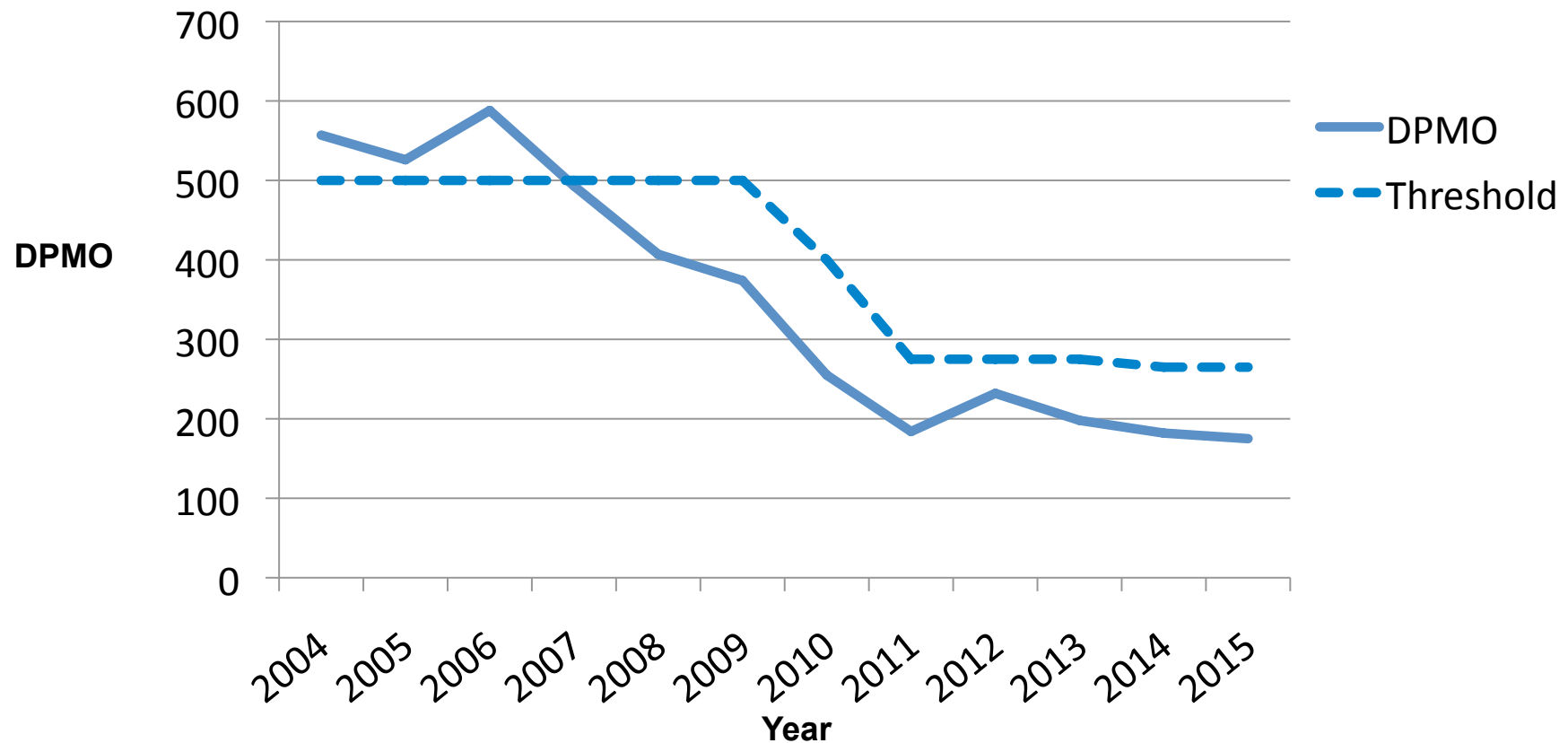
Note: National Benchmark is 0.05% or 500 DPMO
NSLIJ Threshold lowered to 400 in 2010; 275 in 2011; 265 in 2014

Core Lab Metric Evolution

Super STAT!

Accurate Orders!

Super Fast!

Answer Fast!

Accurate Results!

Metric	Early	Mid	Current	Comment
STAT TAT	11.2% outliers <4hr	167min Ave	159 min Ave	Superior to National Bench
Accessioning Order Errors	7623 +DPMO	3291 DPMO	103 DPMO	Less Error and Higher Vol
Critical Value Notification in 15min	N/A	3.3% outlier	0.3% outlier	Excellent Improvement
Abandoned Call Rate	8.1%	4.9%	1.5%	Excellent Improvement
Corrected Reports – Core Lab	320 DPMO	250 DPMO	225 DPMO	Excellent Improvement

Core Lab Corrected Reports
General Laboratory

Note: National Benchmark is 0.05% or 500 DPMO
NSLIJ Threshold changed to 275 DPMO in 2011

Core Lab Metric Evolution Anatomic Pathology

Metric	Early	Mid	Current	Comment
Small Bx TAT Outlier – 48h	1.8%	2.0%	1.9%	Excellent Performance
Gyn TAT Outlier -5d/4d/3d	7.2%	4.0%	1.1%	Excellent Improvement
Non-Gyn TAT Outlier – 48h	4.9%	2.7%	6.1%	Trending Below Thresh – 10%

Fast!

Faster!

Improve!

Surgical Pathology TAT Metric
Percent Outliers
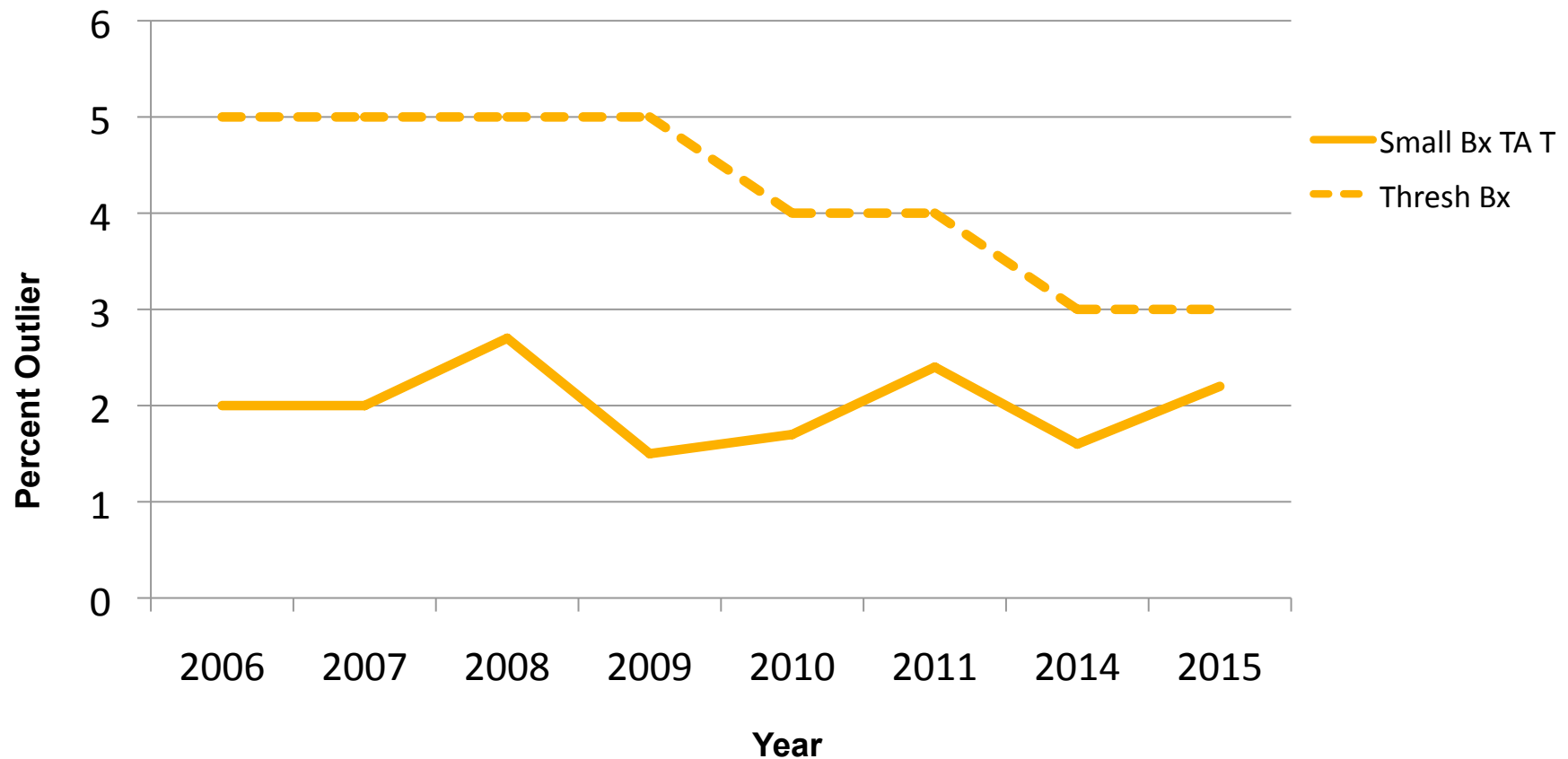
Note: Small Bx Threshold = 5%/4%/3%

Cytopathology TAT Metrics
Percent Outliers
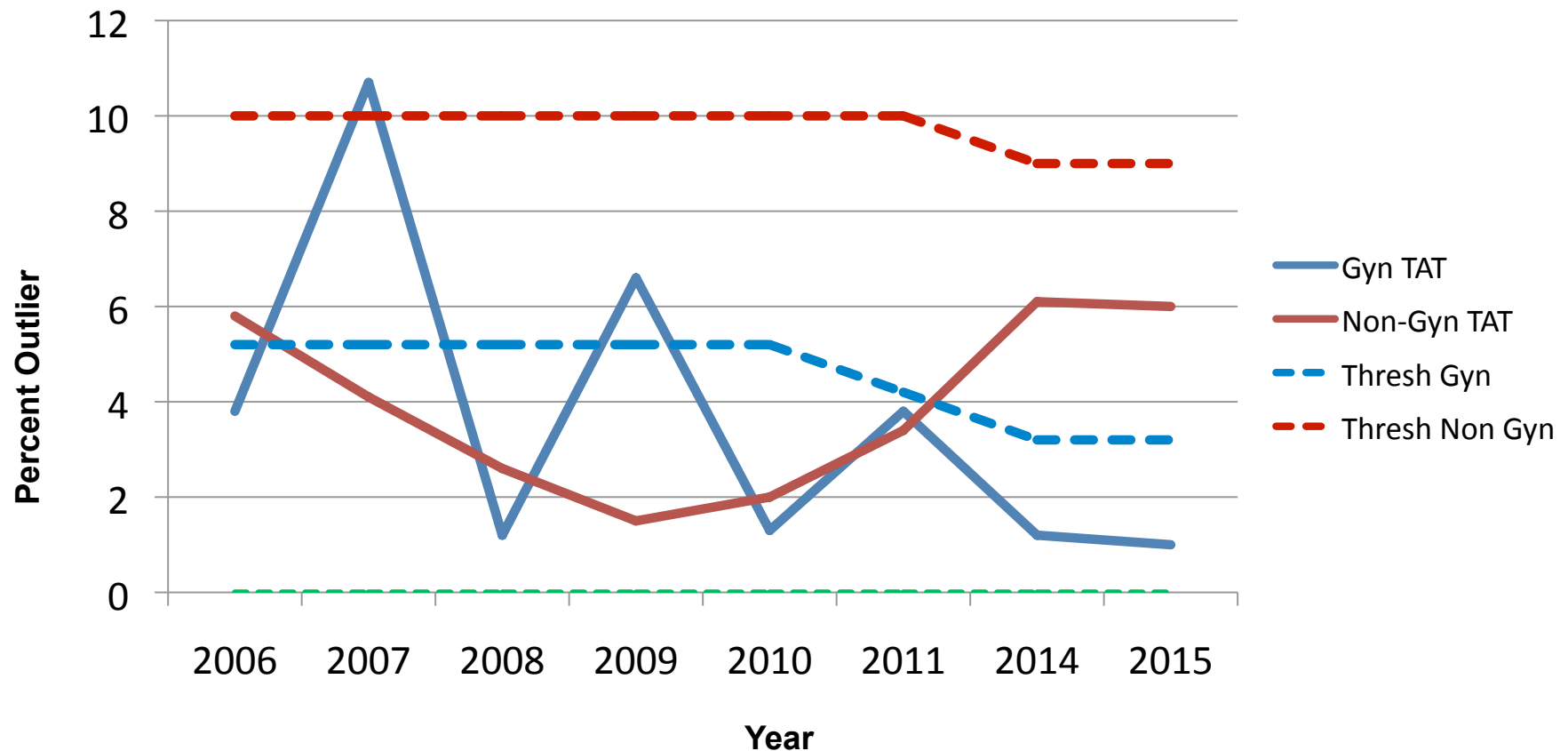
Note: Acceptable Gyn TAT changed from 5d to 3d in 2008 as indicated by blue arrow .
Gyn Threshold = 5%/4%/3%
Non-Gyn Threshold = 10%/9%

Core Lab Internal Client Metrics
What We Do Well

Critical Value Notification = 99.7% YTD	STAT TAT = 173 min YTD
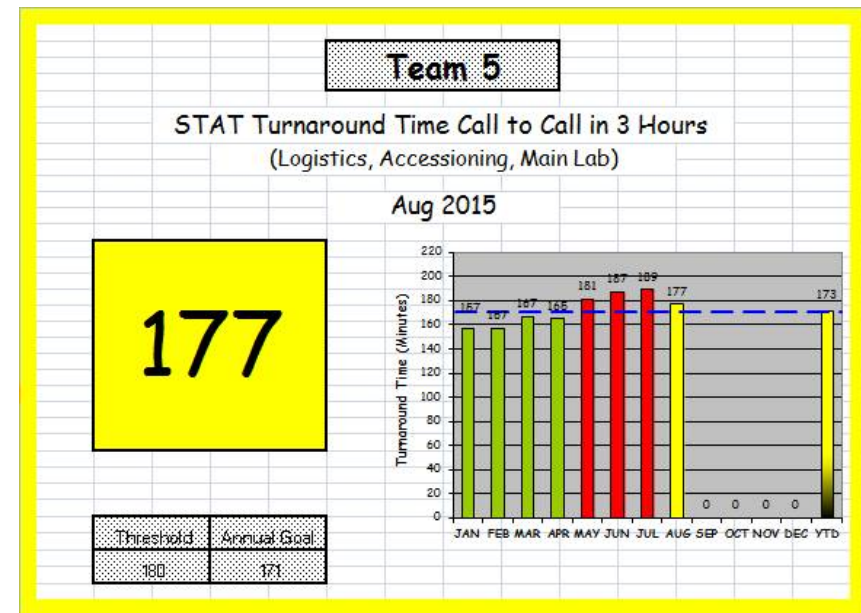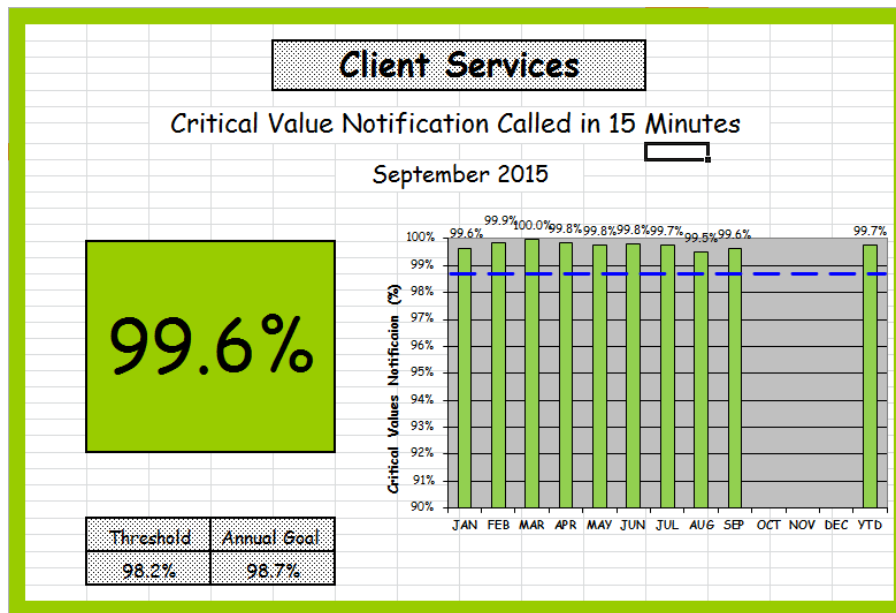
Nursing Home and Home Draw
Metrics Evolution

Metric	Early	Current	Comments
NH Specimen Arrival Time by 11am	97.5%	96.8%	Sustaining with Increased NH Clients
Mislabeled/Unlabeled Tests (RN+Phleb collect)	NA	387 SeptYTD	Overall Important Metric
NH STAT TAT	NA	3:57 hr Ave	Dispatch to Result
Home Draws – Number Reqs Properly Scanned	NA	90% cases	Ongoing Metric

Other Reports Provided

1- Utilization of All Testing by Physician
2- Utilization of Urine Cultures for NH
3- Antibiograms for Regulatory Agencies
4- Daily PT/INR Result Summary Report by Physician and Patient Location

Nursing Home
Mislabeled and Unlabeled Billable Tests 2015
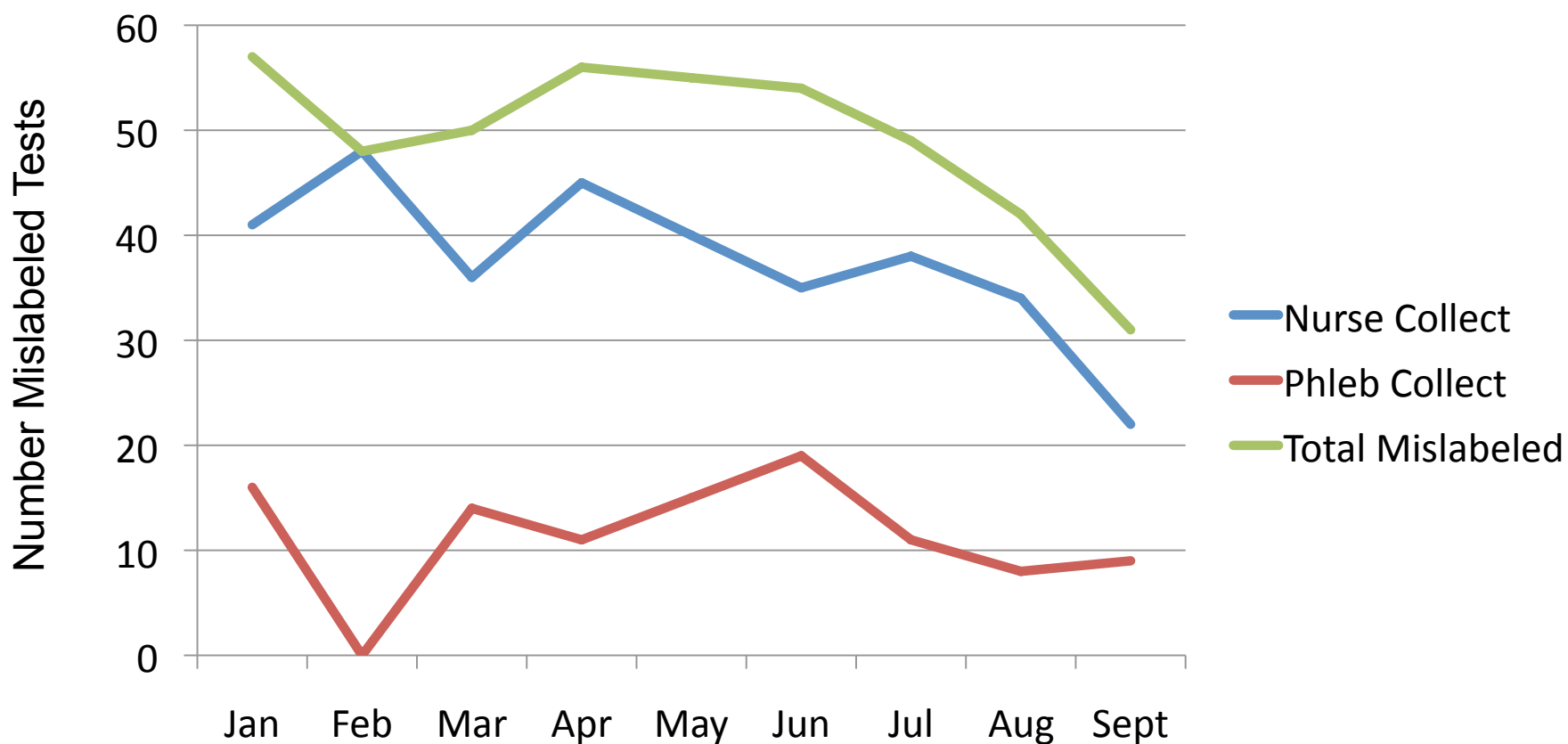
Note: RN Collect YTD = 299
Phlebotomy Collect YTD = 88
Total YTD = 387

Nursing Home Current Metric
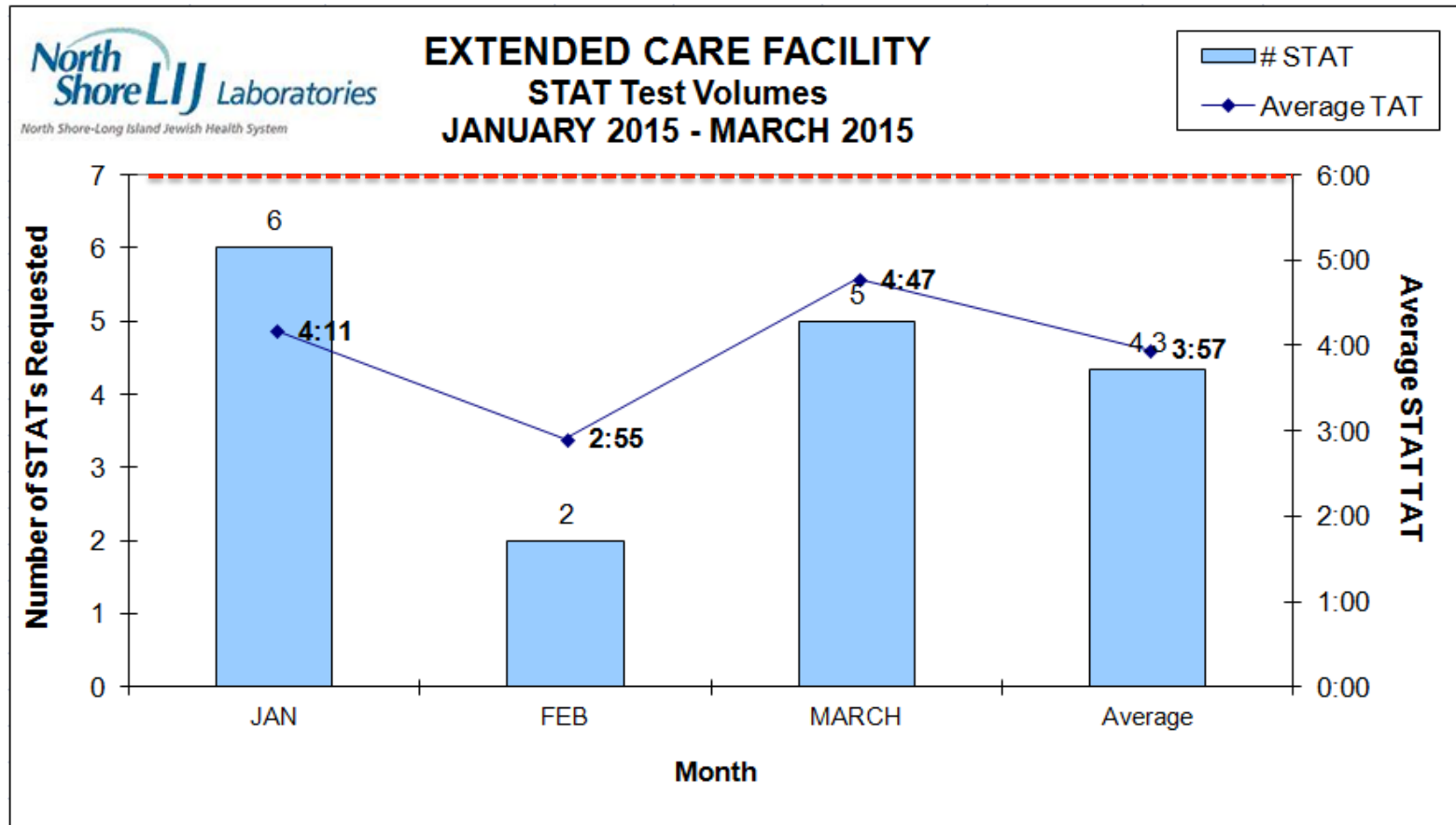
Note: Threshold is 6 hours

Faculty Practice Metrics
Current

Metric	Current	Comments
Mislabeled/Unlabeled	229 DPMO	Ongoing
Changed Demographics	24 DPMO	Ongoing
Delay In Testing	In Progress	Overall Important Metric

Faculty Practice Metrics
Mislabeled/Unlabeled Specimens

FACULTY PRACTICES - SEPTEMBER 2015

Patients = 22
Tests = 138
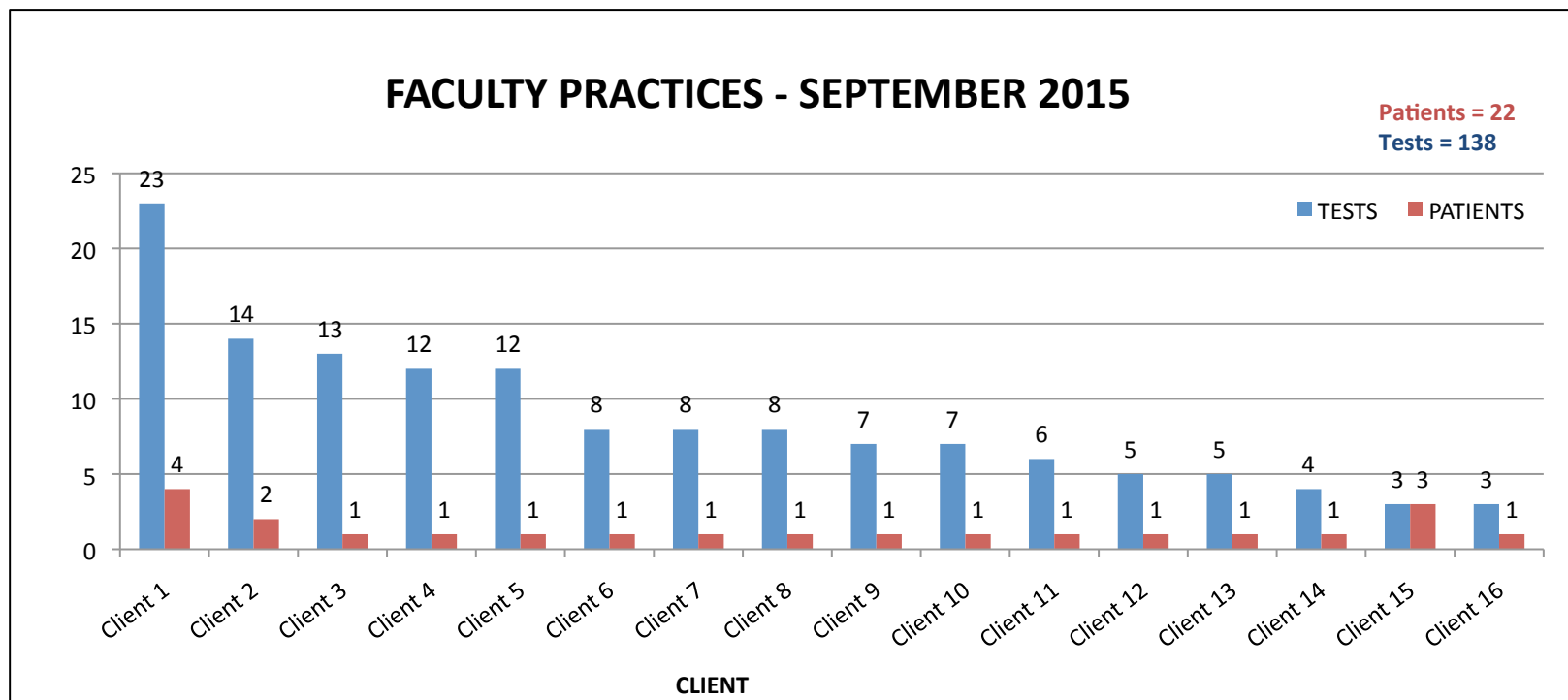
■ TESTS ■ PATIENTS

Faculty Practice Metrics
Changed Demographics

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	YTD
Number Faculty Practices Requests	31	18	25	29	27	27	23	18	46	244
Number Changed Demographics	23	4	11	21	12	14	4	6	29	123
Number Patients	51	23	35	45	37	34	30	33	56	344
Number of Tests	171	76	80	114	71	108	50	60	17	908

Note: Changed demographics at the request at the physician

Physician Satisfaction Survey

Likelihood To Recommend

2008	2009	2013	2014
90.2%	95.8%	96.7%	97.6%

Early Comments:
1- Request for eGFR
2- Accept Additional Insurance
3- More PSCs in LI and Queens
4- Deliver Client Supplies Quickly

Actions:
1-Implemented eGFR
2-All Major Insurances Accepted
3-Many Additional PSCs Opened
4-Established Client Supply TAT Metric

Current Comments:
1- EMR Interface Delays
2- Client Service Reps - Not Technical
3- More Communications
4- Additional Supplies

Proposed Actions:
1-Strict Timeline on Validations
2-Hired a Client Service Rep Educator
3- Distribution of Technical Bulletins,
Increased clinical consultation
4-Based on Utilization

Core Lab Patient Satisfaction Metrics

EARLY METRICS	EXCELLENT
Ease	87.0%
Cleanliness	93.3%
Courtesy	88.8%
Sign-in and Registration	89.5%
Skill	94.5%
Overall	88.8%

CURRENT METRICS	EXCELLENT
Ease	94.7%
Cleanliness	97.6%
Courtesy	98.8%
Sign-in and Reg	98.1%
Skill	99.6%
Overall	99.5%

DIFFERENCE	EXCELLENT
Ease	7.7%
Cleanliness	4.3%
Courtesy	10.0%
Sign-in and Reg	8.6%
Skill	5.1%
Overall	10.7%

External Client Metrics
Clinical Trials

Metric	Early	Mid	Current	Comment
Percent QNS and Clotted Specimens	0.13%	0.12%	0.13%	Maintaining Metric
Tests Repeated and Confirmed	82.8%	86.1%	91.3%	Improvement Noted
Document Archiving	15.1%	82.0%	97.0%	Excellent Improvement!

Don't Cancel!

Repeat Confirm!

Archive Docs!

Consolidated Quality Summary Report

North Shore LIJ Laboratories

In-house Overall TAT%, 2015

Values: 98.9, 99.1, 99.2, 99.4, 99.1, 99.1, 99.0, 99.1 (1/2015 – 8/2015)
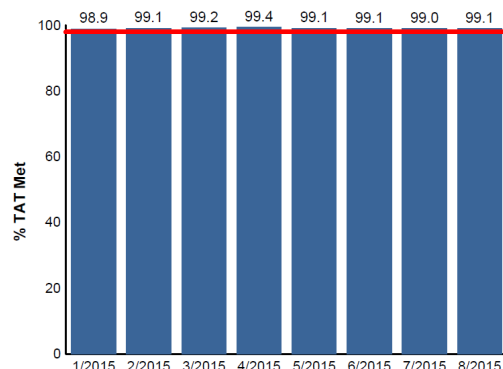
Sendout Overall TAT%, 2015

Values: 94.0, 96.2, 96.8, 97.6, 95.6, 97.7, 97.1, 96.6 (1/2015 – 8/2015)
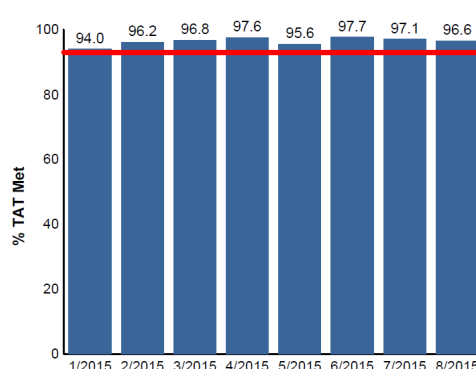
* Critical Values not called within 15 minutes of result by Month, 2015

2/2015: 3; 6/2015: 1
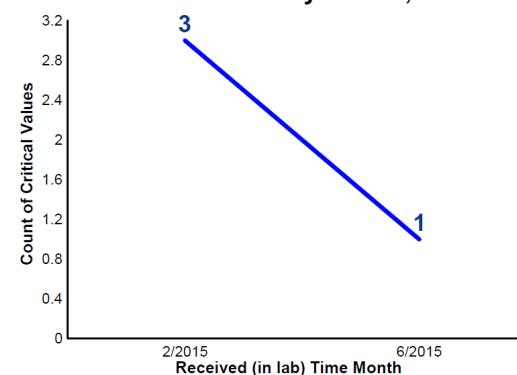
Corrections by Month, 2015

Values: 46, 39, 71, 25, 12, 5, 12, 9 (1/2015 – 8/2015)
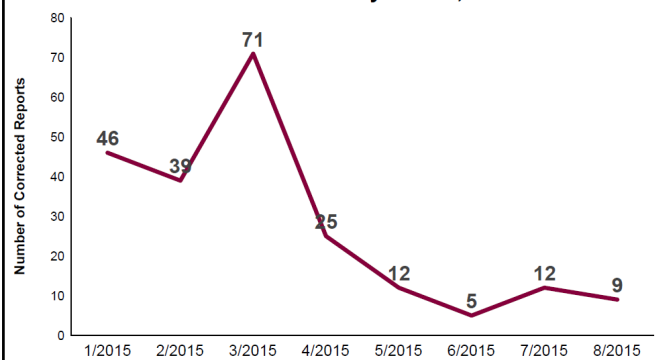
	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15
Billable Tests	45,828	45,004	52,659	53,376	47,649	51,722	50,458	46,593

Cancellations by Month, 2015

Values: 264, 219, 237, 208, 169, 314, 243, 198 (1/2015 – 8/2015)
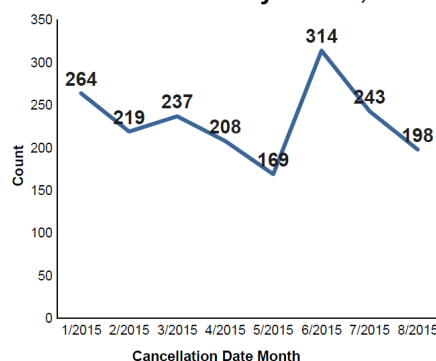
Top 5 Reasons for Cancellation, 2015 YTD

- Insufficient quantity received: 849
- No Specimen Received: 232
- Improperly Collected: 207
- Specimen clotted: 78
- Too old for testing: 59
- Other: 427
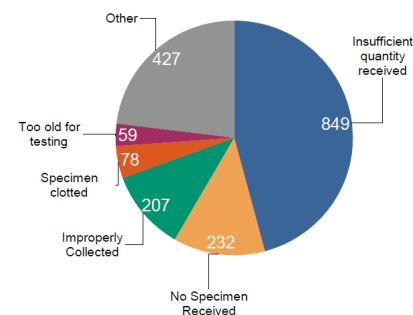
Notes:
Inhouse % Turnaround Time (TAT) met = Inhouse met / Inhouse total; Inhouse goal=98%
Sendout % Turnaround Time (TAT) met = Sendout met / Sendout total; Sendout goal=93%
* Critical values show count where TAT: Resulted to Time of 1st Call exceeded 15 minutes

Consolidated Quality Summary Report

North Shore LIJ Laboratories

Quality Metrics
January - August 2015

Count of Smartsheet Issues by Month, 2015

Count of Smartsheet Issues by Priority Type, 2015 YTD

LIS	41.3%
Operational	48.0%
Regulatory	2.2%
Safety	8.6%
Total:	100.0%
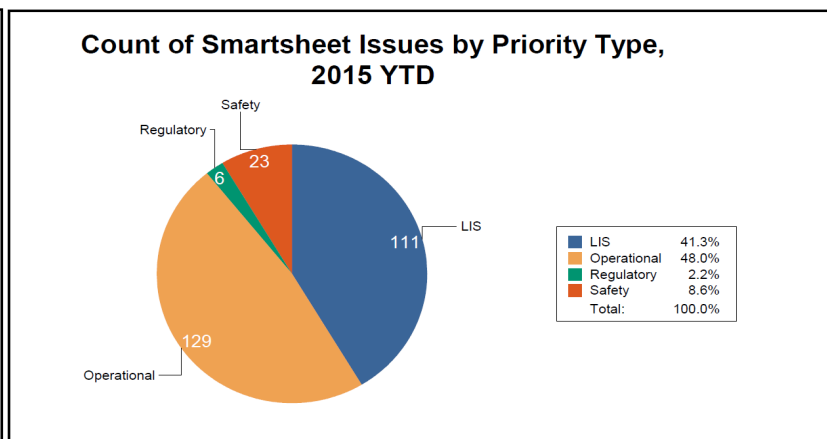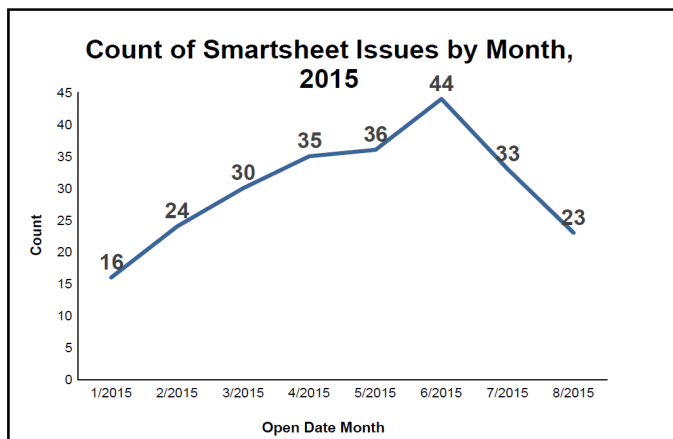
Consolidated Quality Summary Report

North Shore LIJ Laboratories

Count of Cancellations January-August 2015

Consolidated Quality Summary Report

North Shore LIJ Laboratories

Top Three Test Cancellations by Facility, 2015 YTD
Total YTD Test Cancellations = 1,852
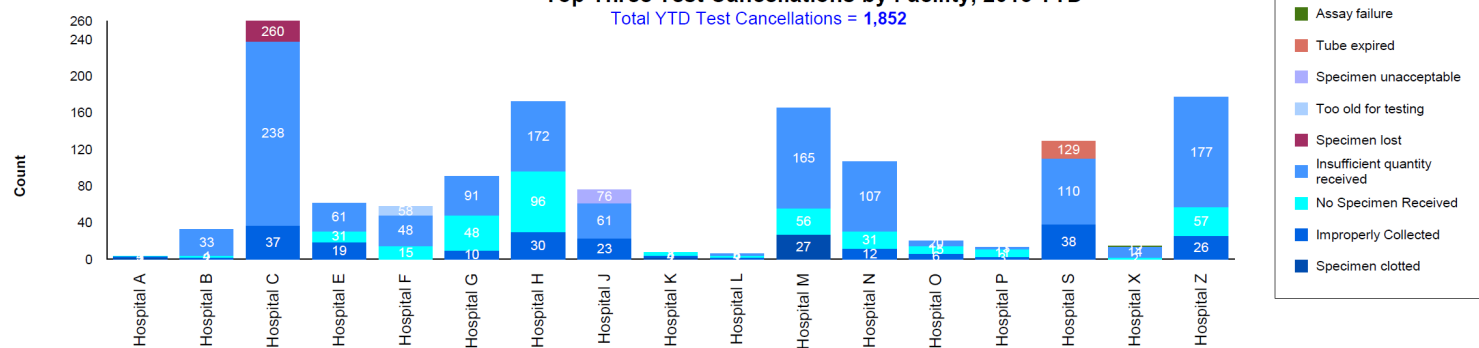
Count of Test Cancellations, 2015 YTD
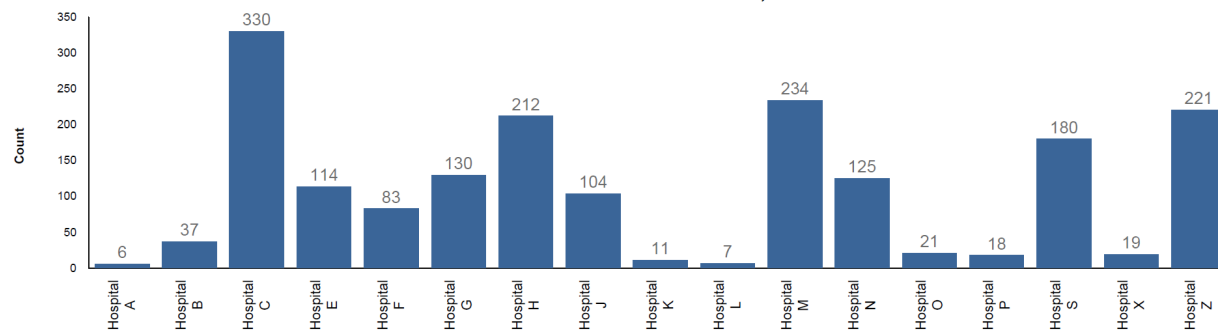
	Hospital A	Hospital B	Hospital C	Hospital E	Hospital F	Hospital G	Hospital H	Hospital J	Hospital K	Hospital L	Hospital M	Hospital N	Hospital O	Hospital P	Hospital S	Hospital X	Hospital Z
Billable Tests	1,633	3,822	61,255	32,708	25,663	22,960	41,073	29,455	24,669	1,142	28,032	15,717	14,720	9,140	22,658	7,674	50,968

Client Communication -The Key to Success

- Communication reflects the Level of Quality
  - Distinguishing characteristic of Labs
  - Makes us "better than our competition"
  - Minimal in The Past
    - Critical Value Notification
    - Cancelled Tests, etc
  - Current Communications Expanded
    - Regular Sales Visits
    - Laboratory Communication
      - Instruments Down/Delay in Testing
      - LIS Down
      - Technical Bulletins
    - Web Based SmartSheet

Client Communication
Web Based SmartSheet

All Columns and Fields are customizable by end user

Priority Type

Case ID #

Issue Type

Assigned to
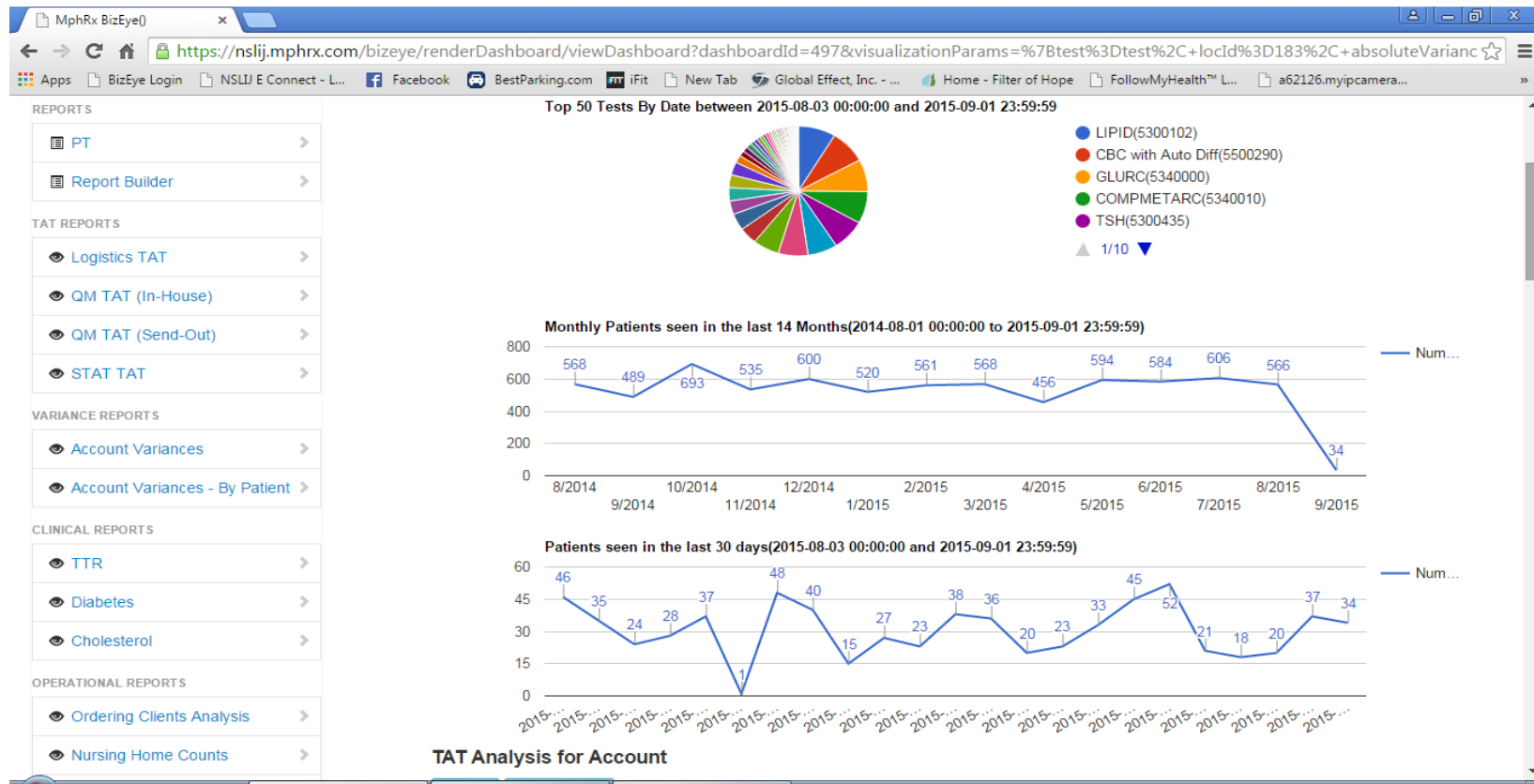
The Marriage of Quality Management and Informatics

- New "Division" in lab organization

- Design and build infrastructure

- Data integration from multiple systems

- Future delivery platforms

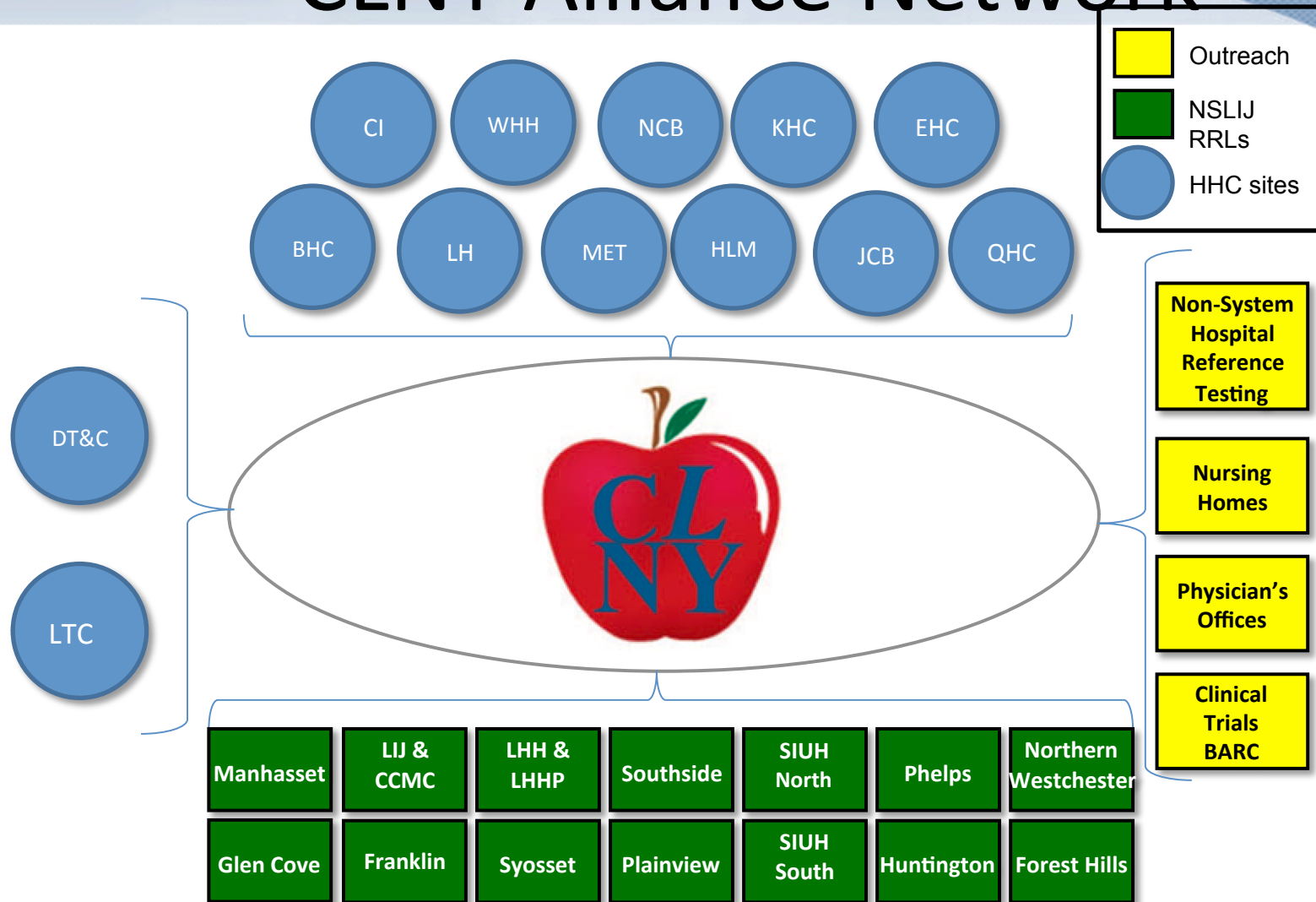**The Future is the Division of Quality and Informatics!**

Client Communication
Mobile Device
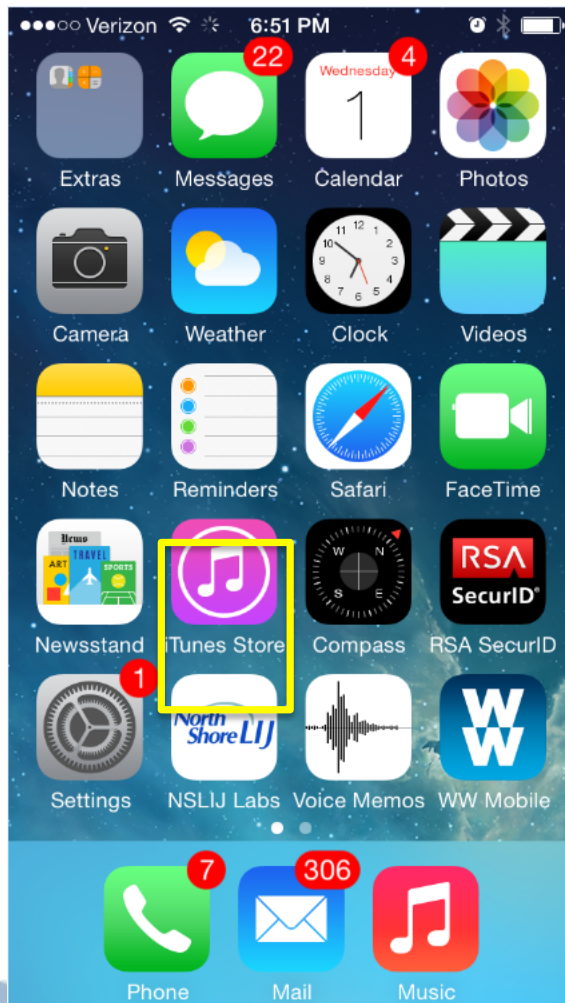
# Informatics and QM Consolidated Utilization Report Example

Future: CLNY Integrated Labs

Summary

- Through the years, we have successfully developed specific tools to capture the needs of our clients.

- We developed metrics express our performance levels based on client expectations.

- We have enhanced quality and service levels of our laboratory and have partnered with our clients to continue to enhancing their quality as well.

- Our lab is well positioned to play a lead role in responding to the challenges and remaining competitive in the current healthcare environment.

The Great Disappearing Act
Quality Case Study
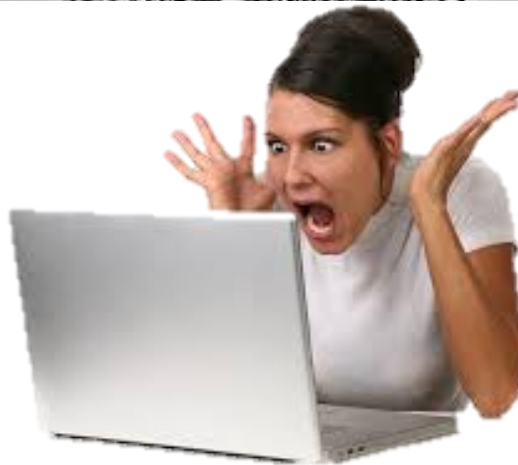
The Great Disappearing Act
Quality Case Study

QUESTIONS?

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