Launching a Clinical Lab 2.0 Program at Your Hospital or Health Network: Lessons from the Project Santa Fe Experience

James M Crawford, MD, PhD
Senior Vice President, Laboratory Services
Northwell Health
Professor and Chair, Department of Pathology and Laboratory Medicine
Donald & Barbara Zucker School of Medicine at Hofstra/Northwell
jcrawford1@northwell.edu

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Disclosures

ClaraPath Tech-transfer from Cold Spring Harbor Laboratory
Northwell Health Genomics Alliance Joint Venture with OPKO/BioReference Laboratories
Project Santa Fe Foundation Chair, Board of Directors
Launching a CL2.0 Program....

CL1.0

What are the high-performance activities of your clinical laboratory right now?
Where are you falling short of your aspirations? What are you doing about it?
Where are you being frustrated in achieving your strategic priorities? How are you dealing with them?
What do your Stakeholders currently think of your clinical laboratory?
Launching a CL2.0 Program....

CL1.0

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Where are you falling short of your aspirations? What are you doing about it?
Where are you being frustrated in achieving your strategic priorities? How are you dealing with them?
What do your Stakeholders currently think of your clinical laboratory?

CL2.0

What are your Stakeholders pain points? What are their frustrations?
What are your Stakeholders aspirations and strategic priorities?
How can you (Lab) help them meet their Objectives – and address their pain points?
And in so doing, what is the Evidence Base that will demonstrate that you are their Laboratory-of-Choice?
<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Key Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer (Patient)</td>
<td>Patient Experience, Access, Health Plan/Financial Burden, Safety of Care, Health Outcomes</td>
</tr>
<tr>
<td>Providers</td>
<td>Your Lab’s ability to Care for <em>their</em> Patients</td>
</tr>
<tr>
<td>Health System/Corporate</td>
<td>Cost of Laboratory Services, Quality Performance, Patient Experience</td>
</tr>
<tr>
<td>Payers</td>
<td>Data</td>
</tr>
</tbody>
</table>
Who are your Stakeholders (2.0)?

Consumer (Patient)  Patient Experience, Access, Health Plan/Financial Burden, Safety of Care, Health Outcomes

Providers  Your care for their Patients, Support of their ability to practice Medicine & care for their Patients

Health System/Corporate  Supporting system Strategic Priorities + Financial Performance + Quality Outcomes
                        Brand Enhancement, Managed Care Plan Design (and Quality Outcomes)

Payers  Data, Member Benefit Design, Clinical Programs (especially Disease Management/Wellness), Managed Care Plan Design & Market Growth

Re-framing how you think as a clinical laboratory
“Commodity” vs. “Asset”

Commodity  An economic good or service that has full or substantial fungibility:
  Is treated as “good” or “equivalent”, without regard to who produced the commodity
  Quality, Reliability, Service and Access may (or may not) become incremental brand differentiators
  Should be purchased for the lowest price; “brand reputation” may (or may not) have traction
  Volume drives down pricing, so the larger vendors gain both cost efficiencies and market access
  Can be moved offsite, so as to achieve those volume efficiencies

Asset  A resource controlled by a business, from which future economic benefits are expected to flow
  Is the result of past performance, events, and/or transactions
  Can be converted into cash
  Is **not** an investment
  *Is supposed to generate economic benefit within the current operating cycle*

So how does “Lab” become an Asset?
## The desired outcomes of CL1.0*

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>High precision, high “trueness”</td>
</tr>
<tr>
<td>Reliability</td>
<td>Overall consistency of a measure</td>
</tr>
<tr>
<td>Safety</td>
<td>Reduction in Systematic Error, Reduction in Random Error</td>
</tr>
<tr>
<td>Timeliness</td>
<td>Meeting/exceeding expectations/standards for Turnaround Time</td>
</tr>
<tr>
<td>Expertise</td>
<td>Technical, Professional</td>
</tr>
<tr>
<td>Innovation</td>
<td>Bringing the “Science of Medicine” to the realm of Diagnostics/Prognostics/Theranostics</td>
</tr>
<tr>
<td>Financial Viability of Lab</td>
<td>Revenue, Expense, Margin/Profit</td>
</tr>
</tbody>
</table>

*Commodity
The desired outcomes of CL2.0*

Lab
- Valued (and getting paid) for being “an essential component of a high performance IDN”

Consumers
- A key partner in their journey through wellness/prevention, disease management, and acute care

Providers
- A key partner for their ability to care for their Patients

Health System/Corporate
- Enhanced Financial and Quality Performance, Enhanced Patient Outcomes and Patient Experience
- Enhanced Brand Value, Strategic Clinical Program Growth

Payers
- Lab as a key partner for Data, Product Design, Product Delivery, Financial Performance
- and Improved Population Outcomes

*Asset
"HERE"
Clinical Lab 1.0 (volume)
- Commodity
- Cost-per-Test

"THERE"*
Clinical Lab 2.0 (value)
- Value to Consumer
- Value to Provider
- Value to System
- Value to Payer

*ca. 2015
CL2.0: A unifying concept

Develop the Evidence Base for Valuation of Pathology and Laboratory Services

- Optimize: Time-to-Diagnosis; Time-to-Effective-Care; Care Coordination; Transitions-in-Care
- Close: Gaps-in-Care
- Support & Lead: Wellness Care; Screening + Monitoring; Chronic Disease Management; Effective Acute Care
- Translate into: Quantifiable Measures of:
  - Population Outcomes
  - Economic Outcomes (and for Whom?)
- Take advantage of: Health system consolidation
  Laboratory Integration across Health Systems
Lab 1.0
*transactional*

- **Sick Care**
  - Receive Test Sample
  - Result Test Sample

- **Disease Screening**
  - Protocol-driven
  - Scheduled by Treating Physician
  - Lab is derivative

- **Wellness Programming**
  - Managed by Treating Physician
  - Lab is derivative

- **Payment Models**
  - Lab is a Commodity
  - Value is Cost-per-Test

Lab 2.0
*integrative*

- **Health Care**
  - Population Health using Lab data
  - Total Cost-of-Care leveraging Lab data
    - Time-to-Diagnosis
    - Diagnostic Optimization
    - Care Optimization
    - Therapeutic Optimization
    - Monitoring Optimization
    - Screening Optimization

- **Risk Management**
  - Identification of Risk
  - Real-time tracking of Risk
  - Escalation/De-escalation of Acuity

- **Wellness Programming**
  - Gaps-in-Care closed using Lab data
  - Outcomes of program using Lab data

- **Predictive Analytics**
  - What will happen? When? Why?

- **Payment Models**
  - Value of Lab for Total Cost-of-Care

*Clinical Lab 2.0 (2017)*

Crawford JM et al., *Academic Pathology* 2017; DOI: 10.1177/2374289517701067
Health care in the United States is not as safe as it should be—and can be. At least 44,000 people, and perhaps as many as 98,000 people, die in hospitals each year as a result of medical errors that could have been prevented, according to estimates from two major studies. Even using the lower estimate, preventable medical errors in hospitals exceed attributable deaths to such feared threats as motor-vehicle wrecks, breast cancer, and AIDS.

Types of Errors

**Diagnostic**
- Error or delay in diagnosis
- Failure to employ indicated tests
- Use of outmoded tests or therapy
- Failure to act on results of monitoring or testing

**Treatment**
- Error in the performance of an operation, procedure, or test
- Error in administering the treatment
- Error in the dose or method of using a drug
- Avoidable delay in treatment or in responding to an abnormal test
- Inappropriate (not indicated) care

**Preventive**
- Failure to provide prophylactic treatment
- Inadequate monitoring or follow-up of treatment

**Other**
- Failure of communication
- Equipment failure
- Other system failure

<table>
<thead>
<tr>
<th>Lab 1.0</th>
<th>Lab 2.0</th>
<th>Types of Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>transactional</strong></td>
<td><strong>integrative</strong></td>
<td><strong>Diagnostic</strong></td>
</tr>
<tr>
<td>Sick Care</td>
<td>Health Care</td>
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<tr>
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<td></td>
</tr>
<tr>
<td>Managed by Treating Physician</td>
<td>Screening Optimization</td>
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<td></td>
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<td>Failure of communication</td>
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**Clinical Lab 2.0 (2017)**

Crawford JM et al., *Academic Pathology* 2017;
DOI: 10.1177/2374289517701067
4 years of “Demonstration Projects”

*PSF March 2016*  
Show-and-Tell: Shaping the Premise of "Value-Added" institutional projects

*PSF March 2017*  
Critical examination of institutional projects: Project Scoring Matrix; Project progress

*PSF March 2018*  
Commitment to multi-site Demonstration Projects (Sepsis, Opioids, Risk Adjustment)

*PSF March 2019*  
Challenges of doing multi-site Demonstration Projects
Founding Premises of projects

Leverage the substantial geographies of member health systems

Analytics on data streams from member laboratory networks, so as to achieve:
- Real-time risk stratification of populations
- Identification and correction of care gaps
- Tracking of populations of patients with chronic diseases and interventions
- Implementation of novel technologies and analytics into laboratory diagnostics

Deliverables
- Quantitative demonstration that CL2.0 disruptive innovations actually improve patient outcomes and decrease costs
- Quantitative demonstration that such innovations align with health plan/health system business models/incentive systems
- Monetization of the Laboratory contribution/leadership
- Adherence to the Scientific Method for hypothesis testing and validation of disruptive innovations
- Academic dissemination of knowledge through peer-review publications
- Empowerment of other institutions to pursue and achieve their own CL2.0 Value statements
PSF projects: 2016-2018

Geisinger: Quality Monitors for Anatomic Pathology TAT
Early Diagnosis of Blood Stream Infection
(Buehler SS et al., Clin Microbiol Rev 2016; Pancholi P et al., JCM 2018; Bogle et al. HIMMS 2018)
Actionable Flu results (Hernandez DR et al., Diagn Microbiol Infect Dis 2018)
Converting institutional 1.0 projects to 2.0, through the Scientific Method
Hematological Predictions of Sepsis

Henry Ford: Institutionalization of Laboratory-led Process Improvement projects
Utilization Management: Laboratory Test Formulary; Daily Lab Testing
3rd Troponin (following 2 negatives) in ED “rule outs”
Vitamin D testing
Blood Transfusion in Patients with Hb > 7 g/dL

Northwell: Acute Kidney Injury in hospitalized patients (Kothari T et al., Acad Pathol 2018)
Blood Bottle Fill Volumes (Khare R et al., Clin Infect Dis 2019)
Risk Adjustment, Utilization-and-Care-Gaps, Telehealth, Managed Care programs....
Antibiotic Stewardship – Pharmacy:Lab
Coalition of Leaders on Thrombosis (CLOT)
In-system Laboratory Valuation (Jensen KJ et al., Archiv Pathol Lab Med 2019 – in press)

TriCore: Prenatal Care Gaps, Hepatitis Management, Diagnostic Optimization (Munk P et al., AJCP 2016)
Productization of Laboratory Data, CDS, Targeted Interventions
Community Antimicrobial Stewardship – Pharmacy:Lab

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PSF multi-site projects: 2018-2019

Sepsis: Experimental Design; Data Standardization; Data Resourcing; Multi-site Data; Data Analytics; Data Validation, Project Management; Human Subjects Research

Opioids: Data feeds; Utilization; Diagnostic/Interpretation algorithms
Critical Success Factors; Support from IT; Identify-the-Decision-Makers
Demonstrate Value – but don’t Overpromise

Risk Adjustment: Clinical Documentation; Lab identification of Care HCCs; Stratification
Health Plan Member Identification-and-Matching
Product Monetization
PSF projects: Lessons Learned

Individual projects do not transport easily between institutions (need, receptivity, entry-points, opportunity)
Proactively initiated multi-site projects can generate strong momentum; resourcing and bandwidth are challenges
Institutional 1.0 projects can benefit from lab leadership – convert them to 2.0 projects (the "Value-added" of Lab)
Prioritize projects that will get the attention of the C-suite – those are the successful projects
Follow-the-money: Focus relentlessly on the [Economic Value of Lab Data]; address Business Models of Stakeholders
Track your Metrics before-during-after "Intervention"; ensure that Lab's contribution is attributable to Lab
If Lab is creating Value from Data, Lab should plan for monetizing that Value (Impact, Valuation, Productization)
Economic analysis of Laboratory-led 2.0 projects: ROI > 10:1 ?? Should be realized in 1st year, with 5-year benefit
Conduct projects rigorously using the Scientific Method; Statistics are OK, but “absolutes” are absolutely good – or bad
Projects take time: “continuous improvement” is more likely than stark “before” vs. “after” results
Isolate variables, control for confounding variables
Only take on financial Risk for what you (Lab) can control
PSF projects: Critical Success Factors

Positive Interdependence: Shared Values, Responsibility and Purpose on project teams*

Individual Accountability*

Norms, Structure, and Process*

Good Sociology: Face-to-Face interactions, but do the real work off line*

The more Impact a project has, the less Risk you can take

Lab cannot generate “2.0” on its own – this is “Medicine 2.0”

Failure points:*

- Lack of clear Authority by project leaders (whomever they are)
- Lack of joint-ownership with Clinical Leaders
- Lack of Actual Data
- Lack of a clear and defined process

Noted in passing: Organizations are good at Vision and Strategies, but might be weak at Tactics.
Lab is really good at Tactics. Find the “sweet spot” for Lab involvement in system projects.

*Henry Ford Health System
But one thing is clear:

Your Laboratory-led projects must matter to your health system:*
CEO, COO, CFO, CQO, CMO, CNO, CIO...
If your projects don’t matter to them, you are not thinking big enough
And if your projects also matter to your Payers, that is even better!

*Make your friends before you need them
Example 1: low Blood Culture Fill Volume

Fill volume: Optimal is 8 – 10 mL
Maximum is 10 mL
Minimum is 3 mL
System Quality Initiative
Blood Culture Fill Volumes

Education Campaign Begins

Reeti Khare, PhD
Stefan Juretschko, PhD
Active Monitoring and Feedback to Improve Blood Culture Fill Volumes and Positivity across a Large Integrated Health System

Reeti Khare, Ph.D., D(ABMM) 1,2 Tarush Kothari MD, MPH 1,2 Joseph Castagnaro 1,2, Bryan Hemnings, MBA 1,2 May Tso, MT(ASCP) 1,2 Stefan Juretschko PhD, D(ABMM) 1,2

1Department of Pathology and Laboratory Medicine, Northwell Health Laboratories, 10 Nevada Dr., Lake Success, NY

2Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, Hempstead, NY

Corresponding author: Reeti Khare, PhD, D(ABMM), Northwell Health Labs, 10 Nevada Dr., Lake Success, NY 11042, 516-254-6906, rkhare@northwell.edu

Summary: Here we show that under-filled blood cultures are extremely common but that certain operational and educational strategies can result in sustained improvements across a large and complex network of hospitals and laboratories.

Clin Infect Dis 2019 March 14; pii.ciz198; doi: 10.1093/cid/ciz198; PMID 30873522
© The Author(s) 2019. Published by Oxford University Press for the Infectious Diseases Society of America. All rights reserved. For permissions, e-mail: journals.permissions@oup.com.
Khare R et al., Clin Infect Dis 2019 March 14; pii.ciz198; doi: 10.1093/cid/ciz198; PMID 30873522
### Example 2: Northwell’s failed Insurance product (CareConnect)

<table>
<thead>
<tr>
<th>Year</th>
<th>Opened CareConnect</th>
<th>Closing CareConnect</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>0 → 11k members</td>
<td>19k → 0 members</td>
</tr>
<tr>
<td>2015</td>
<td>55k members</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>86k members</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>100k members</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>19k members</td>
<td></td>
</tr>
</tbody>
</table>

Lab given opportunity to see the data

- 2014: $0.3 M loss
- 2015: $11 M loss
- 2016: $131 M loss
- 2017: $121 M loss

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### Stratification Result (Northwell Health CareConnect)

#### Top HCCs for Piloting

<table>
<thead>
<tr>
<th>Rank</th>
<th>Name</th>
<th>TIM?</th>
<th>TEST?</th>
<th>PILOT?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>End Stage Renal Disease</td>
<td>Yes</td>
<td>YES</td>
<td>✔️  ✔️</td>
</tr>
<tr>
<td>2</td>
<td>End-Stage Liver Disease</td>
<td>Yes</td>
<td>YES</td>
<td>✔️  ✔️</td>
</tr>
<tr>
<td>3</td>
<td>Diabetes with Chronic Complications</td>
<td>Yes</td>
<td>YES</td>
<td>✔️  ✔️</td>
</tr>
<tr>
<td>4</td>
<td>Diabetes without Complication</td>
<td>Yes</td>
<td>YES</td>
<td>✔️  ✔️</td>
</tr>
<tr>
<td>5</td>
<td>Cirrhosis of Liver</td>
<td>Yes</td>
<td>YES</td>
<td>✔️  ✔️</td>
</tr>
<tr>
<td>6</td>
<td>Chronic Hepatitis</td>
<td>Yes</td>
<td>YES</td>
<td>✔️  ✔️</td>
</tr>
<tr>
<td>7</td>
<td>Chronic Viral Hepatitis C</td>
<td>Yes</td>
<td>YES</td>
<td>✔️  ✔️</td>
</tr>
<tr>
<td>8</td>
<td>Disorders of the Immune Mechanism</td>
<td>No</td>
<td>NO</td>
<td>❌  ❌</td>
</tr>
<tr>
<td>9</td>
<td>Opportunistic Infections</td>
<td>No</td>
<td>NO</td>
<td>❌  ❌</td>
</tr>
<tr>
<td>10</td>
<td>Diabetes with Acute Complications</td>
<td>Yes</td>
<td>YES</td>
<td>✔️  ✔️</td>
</tr>
<tr>
<td>11</td>
<td>Chronic Kidney Disease, Stage 5</td>
<td>No</td>
<td>NO</td>
<td>❌  ❌</td>
</tr>
<tr>
<td>12</td>
<td>Chronic Kidney Disease, Severe (Stage 4)</td>
<td>No</td>
<td>NO</td>
<td>❌  ❌</td>
</tr>
<tr>
<td>13</td>
<td>Adrenal, Pituitary, and Other Significant Endocrine Disorders</td>
<td>No</td>
<td>NO</td>
<td>❌  ❌</td>
</tr>
<tr>
<td>14</td>
<td>Coagulation Defects and Other Specified Hematological Disorders</td>
<td>No</td>
<td>NO</td>
<td>❌  ❌</td>
</tr>
<tr>
<td>15</td>
<td>Acute Renal Failure*</td>
<td>Yes</td>
<td>YES</td>
<td>✔️  ✔️</td>
</tr>
<tr>
<td>16</td>
<td>Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock</td>
<td>No</td>
<td>NO</td>
<td>❌  ❌</td>
</tr>
<tr>
<td>17</td>
<td>Drug Psychosis</td>
<td>No</td>
<td>NO</td>
<td>❌  ❌</td>
</tr>
</tbody>
</table>

*Acute renal failure scored less than Opportunistic Infections, however it was included in the pilot due to existing analytics.*
Clinical and Financial Metrics (Northwell Health CareConnect)

Retrospective chart review by Lab - no clinical impact, but financial opportunity:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Identified via Lab</th>
<th># Patients: Gap</th>
<th># Patients: Documented</th>
<th>Mitigation ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancers</td>
<td>Cancer Antigen 125 ≥ 200; AP</td>
<td>17</td>
<td>3</td>
<td>214,693</td>
</tr>
<tr>
<td>Diabetes</td>
<td>A1C ≥ 6.5</td>
<td>249</td>
<td>30</td>
<td>153,509</td>
</tr>
<tr>
<td>Transplant</td>
<td>Tacrolimus level</td>
<td>6</td>
<td>2</td>
<td>107,345</td>
</tr>
<tr>
<td>Sepsis</td>
<td>Positive blood culture</td>
<td>9</td>
<td>1</td>
<td>88,870</td>
</tr>
<tr>
<td>Chronic hepatitis</td>
<td>Hepatitis B Surface Antigen</td>
<td>22</td>
<td>2</td>
<td>18,704</td>
</tr>
<tr>
<td>Rheumatoid arthritis</td>
<td>CCP Antibody</td>
<td>17</td>
<td>1</td>
<td>12,143</td>
</tr>
<tr>
<td>Seizures</td>
<td>Carbamazepine</td>
<td>6</td>
<td>1</td>
<td>6,987</td>
</tr>
<tr>
<td>Bipolar disorder</td>
<td>Lithium</td>
<td>25</td>
<td>1</td>
<td>5,040</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>351</strong></td>
<td><strong>41</strong></td>
<td><strong>607,291</strong></td>
</tr>
</tbody>
</table>

Only 1 out of 9 patients was documented after Lab identified the opportunity (but the lesson was learned: “Lab’s got game”)

CLINICAL LAB 2.C
A PROJECT SANTA FE FOUNDATION INITIATIVE
What doors have opened?*

Blood Culture Fill Volumes: Every hospital CMO, CNO, and CQO
Early AKI identification: Every hospital CMO, CFO, CQO, and Executive Director
CareConnect Risk Adjustment: Corporate CEO, COO, CFO; and SVP Managed Care

*Northwell Health
Tactics

• How do you prioritize Clinical Lab 2.0 initiatives?
• Who are the effectors of Clinical Lab 2.0 (within the Lab, beyond the Lab)?
• What Skills and Knowledge do they need to have?
• What partners do you need? How do you establish those partnerships?
• How do I resource this?
• How do you know that you are succeeding?
Prioritize the **Burden of Disease**

- **Cost-per-Life or Cost-per-Population**
  - Measurable Outcomes: Clinical; Economic
  - Risk Adjustment: accounting for Acuity, Severity, Comorbidities

- **Risk Stratification:** Likelihood of Health Care Need

- **Care Gaps:** Who is *not* getting the health care they need?

- **Opportunity for Facilitated Intervention**
  - Prevention
  - Early Escalation
  - De-escalation
  - Cost Avoidance

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Needed Skills, Knowledge

We already have most of them:

- Scientific and Medical Knowledge
- We think “System-ness” all the time
- We live-and-breath Quality and Safety
- We are always thinking about Cost Efficiency
- We have sight lines to virtually every sector of health care
- We have data streams on the entire population
- Our innovations don’t cost much, but can have great impact
- We can promulgate innovation rapidly and at low cost across a health system
What don’t we have?

Our definition of “Cost Efficiency” is for Lab alone; not the Total Cost of delivering health care
Lack of routine working relationships with senior leadership (unless already cultivated)
Lack of understanding by Providers, Health System, Payers, Consumers of what we can offer
*Lack of outcomes-based evidence for laboratory-led innovation (hence, Project Santa Fe)*
Lack of access to capital to develop the required infrastructure
Lack of aligned incentives for rewarding laboratory-led innovation
Lack of playbook for providing Laboratory-led leadership
What do we need to do?

Understand what “fires” are burning on the CEO’s/CFO’s/CQO’s platform

Constant vigilance: “Lab can help!”

Innovative thinking as to how Lab can, indeed, help (don’t worry about the data feeds – yet..)

*Follow-the-Money*: Clinical Outcomes, Quality Measures – all come back to Total Cost of Care

Reach out to Managed Care Contracting: What are they negotiating? With Whom?

Figure out how Lab can help those Managed Care products be successful

* Determine your “Minimum Viable Product” (MVP) for meeting those needs
Resourcing Clinical Lab 2.0

- An iterative cycle: initial small successes (from 1.0 resourcing) can justify further investment in 2.0
- The realized Economic Impact has to be measured prospectively (“before/after intervention”)
- The Economic Impact is at the health system level (where it should be).
   You must have direct lines of communication with the health system CFO to get credit.
- How that “credit” is realized depends on your business model:
  In-system Lab: Budget Cycle
  Independent Lab: separate Revenue/Contractual discussions
  Payer: now is the time to be innovative with their product development
Feedback from Northwell Lab Managers

- “Volume to Value” has resonated with me. My ability to represent our value has changed from being an exercise, to becoming the norm. The Hospital is now expecting the “Value-Added” from Pathology and the clinical laboratory – and is willing to pay for it.

- Sharing the Clinical Lab 2.0 subject matter is enlightening and educational for my workforce.

- Communication about the Value-Added requires my routinely speaking with senior laboratory and health system leadership, in order to achieve the desired goals and outcomes. In many instances, there typically lies a request for a financial analysis of business need, and resourcing of the programmatic initiative that then is prioritized.

- Clinical Lab 2.0 allows Lab/Pathology to be viewed as a player in being able to effectuate change in the overall delivery of care, as opposed to being an ancillary service.

- Operating in this arena enhances my job satisfaction. I enjoy connecting with peers and experts across the health system, and bringing the clinical practice and financial worlds together.
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Stefan Jurestchko, PhD  Reeti Khare, PhD  Robert Stallone
The >2100 Laboratory Professionals at Northwell
“Project Santa Fe” is now an open organization:  
www.cl2lab.org  
info@cl2lab.org  
communications@tricore.org

The 3rd annual “Clinical Lab 2.0 Workshop” will be held in Chicago, Nov 4-5, 2019

The PSFF Board of Directors is:

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