The Golden Age of Clinical Labs
Global Movement- from Volume to Value

RESHAPING THE WAY CARE IS DELIVERED

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Executive Director, PSF Foundation
Founder, CEO, Lab 2.0 Strategic Services LLC

5/27/2020
Disclaimers

Today’s comments are reflective of:

• My 4-year tenure as CEO of TriCore Reference Laboratories (2014-2017)
• The collective body of knowledge from Project Santa Fe Foundation & Clinical Lab 2.0 movement
• My own personal thoughts
As you think about Covid-19, know this:
Labs are the first to know!
Labs are the first responders
Labs are the epicenter of Informatics.
Lab folks are the ones make this happen!
24/7-365 days/ year
Labs are the unsung heroes AMERICAN
SOCIETY OF CLINICAL PATHOLOGY
College of American Pathologists (CAP)
#labmedicine
#ASCP
#CAP
#patientsafety
Clinical Lab 2.0 #clinicalab2movement

Ever wonder who are behind the Coronavirus
testing?
Definitely NOT doctors and nurses!
# Albuquerque Metro Area (FLURSV)

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<tr>
<td>87068</td>
<td>9</td>
<td>30</td>
<td>30%</td>
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</tbody>
</table>
[Stay Home, Catch Up on your Movies]
SLOW THE SPREAD OF THE VIRUS

Proactive measures slow the spread of disease and reduce the burden on hospitals. This includes social distancing such as telecommuting, limiting large gatherings, reducing travel, or more assertive approaches.

Health care system capacity (ICU beds, ER visits, etc.)

WITH social distancing measures

WITHOUT social distancing measures

POPULATION INFECTED

TIME SINCE FIRST CASE
“Patient Engagement Is The Blockbuster Drug Of The Century,” - DAVID CHASE-FORBES

- Access
- Population Screening
- Aligned Incentives
$2.1B Acquisition

ROLE OF LAB DATA... AT THE POINT OF CARE?
Our lens of the Clinical Lab

An **ancillary** cost center, managing 3 cents

Or?

Triage of Well-Care, managing 97 cents?
Clinical Lab with a new lens

✓ Lab is the first to know - real time actionable data

✓ Lab is the first responder

✓ Lab is the “epicenter of informatics”

✓ Labs should be the “Command Center”

If so, what is our measurable value?!
Center For Diagnostics
Meteorology of Chronic Conditions

✓ First key responders
✓ Lab as the clinical ”Triage”
✓ Integrated
  - Physicians workflow
  - Care manager workflow
Can the labs survive the transition to value-based healthcare?

Lab business model, Strategic Inflection Point?
What Is a Strategic Inflection Point?

“a strategic inflection point is a time in the life of business when its fundamentals are about to change. That change can mean an opportunity to rise to new heights. But it may just as likely signal the beginning of the end”

Andy Grove, Intel
“Lab 2.0 is **NOT** about selling or sharing patient data, its not ours to do so…..Lab 2.0 is about leveraging longitudinal patient data for a proactive clinical actionable insight to improve outcome and reduce overall cost.”

“Patient owns their data and its all about portability, clinical stewardship”
“Our imagination is the only limit to what we can hope to have in the future”

Franklin Kettering (1876-1985)

Clinical Lab 2.0 Movement

➢ Leadership
➢ Standards OKRs
➢ Evidence
Latin definition of patient: “the one who suffers”
USA Population
330M

Fertility Rate
1.3

Estimated $2.7T is spent on chronic conditions
Lab 1.0 - Transactional
Lab 1.5 - Longitudinal

SCr 1.1
Cross-Industry Comparison of Size, Productivity and Efficiency

What is the role of molecular diagnostics in optimizing variation?

6 Sigma analytical performance ........... Yet

- Over-utilization
- Miss-utilization
- Under-utilization

REMAIN OUR CHALLENGES... OR OPPORTUNITIES
Lab 1.0 Business Model Is **Not** Sustainable

- VOLUME
- REIMBURSEMENT
- COST

- PAMA Bundled Payment
- FDA LDT
- PHYSICIAN EMPLOYMENT
- INDUSTRY CONSOLIDATION

Lab 1.0 Economics
PAMA Impact

1% decrease in MCLFS

10% decrease in MCLFS
2018 - 2020

15% decrease in MCLFS
2021 - 2023

Base Year = 2014

Net Revenue


Prepared by TriCore

Prepared by TriCore
“When the size of the pie shrinks, it changes the table manners.”
Healthcare is on the move

FUTURE IS HERE

Sick Care

Heads in Beds

Volume

Sample Centric

CPT F4S per/test

Well Care

Prevention

Value

Patient Centric

Bundled Payment
Healthcare is on the move

✓ Intervention
✓ Prevention
✓ Cost Avoidance

Lab becomes the best bargain, predictor

“We are working to use technology [lab data] to predict and provide treatment before becomes a problem,” - Intermountain Healthcare.
Managing the Transition
‘Dynamic Tension’ of business models

**CURRENT STATE**
Clinical Lab 1.0

- Fee-for-Service Reimbursement

**FUTURE STATE**
Clinical Lab 2.0

- Value-based Reimbursement

Inflection Point

Managing Transition

DANGER ZONE
Insanity: doing the same thing over and over again and expecting different results.

-Albert Einstein
“Let me know when the change is passed”
Health System Lab Acquisitions 2007-2019

Clinical Lab Strategic Acquisitions & Partnerships
2008 - 2018

YEAR
NUMBER
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

LabCorp
Quest
Sonic
Farmer trying to survive tough times ends up selling parts of his land to agribusiness, and soon realizes it wasn’t the Corn that had value but the land it was grown on.

He started his own death spiral.

– Michael Crossey, MD, PhD

“If you don’t have a seat at the table, you will be on the menu...”
Northwell Health Laboratories

The 10-Year Outcomes After Deciding to Keep the Lab

Kendal J. Jensen, MD, PhD; Robert Stallone, BA; Michael Eller, MBA; Joseph Castagnaro, MBA; Hannah Poczter, MS, MBA; Richard Tesoriero, MBA; Jeanne Balzano-Kane, MS; Cari Gusman, BS; Tawfiqul Bhuiya, MD; Dwayne Breining, MD; James M. Crawford, MD, PhD

- **Context.**—Northwell Health Laboratories were established in 1997, serving the Northwell Health system. In 2008, the health system considered minority entry into a joint venture with a commercial laboratory. Based on arguments made by Northwell laboratory leadership, the decision was made to retain full ownership of the laboratory.

  **Objective.**—To evaluate the 10-year outcomes of the 2008 decision and assess the value of a fully integrated laboratory service line for a regional health network.

  **Design.**—Ten-year outcomes were analyzed including financial, volume, and value-based activities.

  **Results.**—First, a fully integrated laboratory service line was created, with unified medical and managerial leadership. Second, Core Laboratory volumes and revenues grew at annualized rates of 4.5% and 16.0%, respectively. Third, hospital-based laboratory costs were held either constant, or grew in accordance with strategic clinical programs. Fourth, laboratory services were able to provide leadership in innovative system clinical programming and value-based payment programs. Fifth, the laboratories became a regional asset, forming a joint venture affiliation with New York City Health + Hospitals, and supporting distressed hospitals in Brooklyn, New York. Lastly, Northwell Health Laboratories have become a reputational asset through leadership in 2 consortia: The Compass Group and Project Santa Fe.

  **Conclusions.**—The 10-year outcomes have exceeded projections made in 2008, validating the decision to retain the laboratories as a wholly owned system asset. The laboratories are now well positioned for leading innovation in patient care and for helping to drive a favorable posture for the health system under new payment models for health care.

(Arch Pathol Lab Med. doi: 10.5858/arpa.2018-0569-SA)
**Laboratory Business Decisions**

- Sell part or all lab services
- Partnership with commercial laboratory
- Maintain ownership and optimize lab services

**Volume to Value**

- Total cost-of-care leveraging laboratory data
- Population surveillance
- Risk management/Care gaps

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Winnable position for Labs

3 Critical Strategic Steps

Optimize current model,
- Reengineer, Eliminate waste
  - Consolidation, automation
  - POCT

Diversify

Transform, “stepping into clinical Lab 2.0 Frontiers” = New Value
Strategic Inflection Point
Risk Stratification

Increased Risk of Complication(s)

Optimal

Care Gaps

Increased Risk of Complication(s) & Care Gaps

Risk created from gaps in health care

$ associated with care

Risk created from patient risk factors

©2016

$ Patient Harm
Prenatal Care in 1st Trimester by Year

Example: Prenatal care in New Mexico

• 72% of New Mexico’s births are Medicare funded¹

• New Mexico’s timeliness³
  o 20% of births received care in the 2nd trimester
  o 8.5% received no prenatal care

• 30% of live births were to women receiving intermediate or inadequate care⁴

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Prenatal Care

The United States is the most dangerous place in the developed world to give birth

From 1990 to 2015, the number of maternal deaths per 100,000 births in most developed nations has been flat or dropping. In the U.S., the rate has risen sharply.

The USA Today report mirrors the findings of an NPR and ProPublica investigation on maternal mortality in the U.S., which concluded a “hodgepodge” of hospital protocols for dealing with potentially deadly but easily treatable complications is putting women in danger. Hospitals were also found to be unprepared for maternal emergencies.

Prenatal Care

LAB 2.0

- HCGT/UPREG
- First Trimester Screen
  - FSTSEQ
  - FESTSCR
- Second Trimester Screen
  - AFPMM4
  - SECSEQ
  - SECINT
- Gestational Diabetes Screen
- Group B Strep

- Align patient with national treatment guidelines
- Risk stratify upon condition identification
- Determine missed care for patient righting
- Alert for abnormal result(s)
- Assure final visit is on target
- Risk stratify upon condition identification

Care Gap

A la carte

- 0-13 weeks
- 14-26 weeks
- 27-40 weeks

Abnormal Result

Due

Gestational Diabetes Screen
Group B Strep
Objectives of MCO Pilot: Prenatal

- Risk stratify members for better care coordination
- Identify prenatal patients early
- Close Gaps in Care
- Impact NICU days LOS
- Impact Preterm Delivery Rate
- Identify prenatal patients accessing ER
TriCore 2.0 Analytics – Total Patients
Prenatal Patients
Prenatal Patients with High Risk and Care Gaps
Prenatal Patients with High Risk and Care Gaps and Insured by Medicaid
Prenatal Patients with High Risk and Care Gaps and Insured by Medicaid in Bernalillo
### Prenatal Patients with High Risk and Care Gaps and Insured by Medicaid (Workable List)

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<thead>
<tr>
<th>County</th>
<th>Zip Code</th>
<th>Metro Area</th>
<th>Patient</th>
<th>Gender</th>
<th>Age Category</th>
<th>Current Payer</th>
<th>Payer Group</th>
<th>Payer Type</th>
<th>Payer Effective Date</th>
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<td></td>
<td>01-01-2014</td>
<td>Albuquerque, NM</td>
</tr>
</tbody>
</table>
METHOD: PATIENT TAILORED INSIGHTS

Demographic Info

Actionable Info

Risk Rationale

Prescriptive Care for Each Patient
Measurable Definition of Value......Value Chain

➢ Value
➢ Value Based Care
➢ Value Based Partnership
➢ Value Based Purchasing
➢ Value Based Payment
➢ Value Based Payment Primer
Measurable Definition of Value......Value Chain

The Old Way

Quality

Cost

Lab 2.0 Definition

Outcome

Measurable Action

Cost

Value-based Healthcare

Measurable action/Time bound

- Risk Stratification
- Care-Gaps
- High Risk
- Facilitated Intervention
  - Intervention
  - Prevention
  - Cost avoidance
  - Financial Risk Adjustment
Key Pilot Results

$734,130 total savings
73% of care gaps closed
33% NICU reduction
30% Pre-Term Delivery
10% reduction in ER visits
=$4.4M Anticipated 1 Year Savings
## ONE MCO PILOT AND PROJECTION

<table>
<thead>
<tr>
<th>Health Condition</th>
<th>Measure/Outcome</th>
<th>2016 MCO Performance¹</th>
<th>TRL Clinical Analytics Result²</th>
<th>ROI</th>
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<tr>
<td><strong>Prenatal</strong></td>
<td><strong>Timeliness of Prenatal Care NMHSD PM #5</strong></td>
<td>75%</td>
<td>77%</td>
<td>$766,766³⁴</td>
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<tr>
<td></td>
<td><strong>Post-Partum Care NMHSD PM #5</strong></td>
<td>58%</td>
<td>60%</td>
<td>$766,766³⁴</td>
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<td></td>
<td><strong>Frequency of Prenatal Care NMHSD PM #6</strong></td>
<td>56%</td>
<td>73%</td>
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<td></td>
<td><strong>NICU Occupancy</strong></td>
<td>19%</td>
<td>11%</td>
<td>$1,184,851³</td>
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<td></td>
<td><strong>Preterm Delivery Outcome</strong></td>
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<td>11%</td>
<td>$1,367,009²⁵</td>
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<td></td>
<td><strong>ER Utilization (Prenatal Members Only)</strong></td>
<td>33 visits per month</td>
<td>30 visits per month</td>
<td>$46,250²⁶</td>
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<tr>
<td><strong>Diabetes</strong></td>
<td><strong>Hemoglobin A1c Testing PM #4</strong></td>
<td>82%</td>
<td>92%</td>
<td>$766,766³⁴</td>
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<tr>
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<td><strong>Nephropathy Screening PM #4</strong></td>
<td>87%</td>
<td>91%</td>
<td>$766,766³⁴</td>
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<td></td>
<td><strong>ER Utilization (Diabetic Members Only)</strong></td>
<td>54 visits per month</td>
<td>38 visits per month</td>
<td>$240,000²⁶</td>
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<td><strong>Hepatitis C</strong></td>
<td><strong>NMHSD Hepatitis C DSIM</strong></td>
<td>350 members</td>
<td>1,577 members</td>
<td>$1,610,208⁴</td>
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</table>

**TOTAL** $8,282,188

2. Results projected from pilot performed with BCBSNM Special Beginnings September 2017 through April 2018
# Proposal to MCO

## Health Condition

<table>
<thead>
<tr>
<th>Measure/Outcome</th>
<th>2017 MCO Performance</th>
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<td></td>
</tr>
<tr>
<td>Timeliness of Prenatal Care NMHSD PM #5</td>
<td>75%</td>
<td>77%</td>
<td>$1,999,874(^3,4)</td>
</tr>
<tr>
<td>Post-Partum Care NMHSD PM #5</td>
<td>58%</td>
<td>(35%)</td>
<td>-</td>
</tr>
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<td>73%</td>
<td>$1,999,874(^3,4)</td>
</tr>
<tr>
<td>NICU Occupancy</td>
<td>19%</td>
<td>11%</td>
<td>$1,470,555(^3)</td>
</tr>
<tr>
<td>Preterm Delivery Outcome</td>
<td>20%</td>
<td>11%</td>
<td>$5,708,892(^2,5)</td>
</tr>
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<td></td>
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<td>82%</td>
<td>92%</td>
<td>$1,999,874(^3,4)</td>
</tr>
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</tr>
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<td>350 members</td>
<td>1,577 members</td>
<td>$4,199,735(^4)</td>
</tr>
</tbody>
</table>

**TOTAL $19,378,676**

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2. Results projected from pilot performed with BCBSNM Special Beginnings September 2017 through April 2018
Lab 1.0
Volume-based

Lab 2.0
Value-based

Pre-analytical  Analytical  Post-analytical

Transactional

Integrative
Post Diagnostic  Computation

✓ Cost/Unit
✓ Accurate test results
✓ Rapid turnaround times
✓ Clinical Menu
✓ Clinical Utility (Lab Formulary)
✓ Test Utilization Management

Sick Care
De-escalation

Health Care
Early escalation

✓ Reactionary
✓ Fee for Service
✓ Commoditized
✓ Reimbursement
✓ Rewards Waste

✓ Proactive
✓ Risk Management
✓ Wellness Programming
✓ Payment on Value
✓ Rewards Efficiency & Outcomes

✓ Cost/Life or Cost/Population
✓ Risk Stratification
✓ Identify Care Gaps
✓ Care Coordination
✓ Facilitated Intervention
1.0 Clinical Lab: Volume-based

**Sick Care**
- Receive and result tests
- Passive engagement

**Disease Screening**
- Scheduled by treating physician
- Disease Surveillance

**Wellness Program**
- Result-driven
- Blanket approach to testing

**Consensus-based**
- Protocol/guideline driven

**Payment Models**
- Cost per test
- Fee for Service
- Laboratory a commodity

2.0 Clinical Lab: Outcomes-based

**Health Optimization**
- Proactive engagement
- Precision Medicine

**Risk Management**
- Identification & real-time tracking of risk
- Driving care intervention
- Reducing negative outcomes

**Care Coordination**
- Diagnostic Management Teams
- Care gaps closed using data
- Optimizing lab testing in clinical workflows
- Eliminate care variation

**Evidence-based**
- Predictive Analytics
- Data driven decisions

**Payment Models**
- Value-based (Per member per month)
- Impact to total cost-of-care

J. Olsen, MD. Geisinger Health System
Sick care vs. Healthcare

LAB 2.0 IDENTIFYING CHRONIC KIDNEY DISEASE

- Kidney damage and normal or ↑ GFR
- Kidney damage and mild ↓ GFR
- Moderate ↓ GFR
- Severe ↓ GFR
- Kidney Failure

Stage 1: ≤90
Stage 2: 60
Stage 3: 30
Stage 4: 15

Last 12 months 24,430
Zeroing in on Diagnostic Latency
Rate of Progression

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Why Clinical Lab? Why Pathology?

“I am a physician first and a laboratory specialist second!”

James Crawford, MD, PhD - Chair of Board, PSFF

Clinical Lab……...Practice of medicine

- Practice of Laboratory Medicine
- Field of Pathology
- An essential seat at the table
1- LAB IS THE FIRST RESPONDER

Lab is the CATALYST- Population Health

- Time to Diagnoses—lab has zero latency (actionable)
- Diagnostic Optimization
- Care Optimization
- Therapeutic Optimization
- Screening/Surveillance
2 – LAB IS THE LARGEST TOUCH POINT

Touches more lives than any other ancillary
(home health, ER, Out/PT, in/PT)

• Each touch point is measured (scientifically) in a value-structured data
• Each data point is clinically actionable
• It represents > 70% clinical data
• It represents > 70% of the clinical decisions
• It can verify physicians’ hypotheses
• Rules a condition IN
• Rules a condition OUT
Lab can do “Real Time” population health surveillance

3 – LAB IS REAL TIME

Become real time chronic/acute care surveillance

- By expanding surveillance to chronic conditions and others
- When a patient-centric longitudinal repository ID is established and normalized
- Measuring changes in a patient for early-stage detection or “precision medicine”
Lab can help improve outcome and reduce overall cost – far above and beyond cost/unit

4 - LAB IS THE FIRST TO KNOW

Based on the aggregated longitudinal data...

- Lab can **risk stratify** population for known chronic conditions
- Lab can **identify care gaps** for conditions with comorbidity and help close gaps in care
- Lab can **identify high-risk patients early** before hospitalization, or ER visits
- Lab can **act as a facilitated intervention** at the point of care (patient/Consumer)
What if…
Lab data could be used to identify a health condition within a population?
RISK STRATIFICATION

What if…
Lab data could help find the patients at risk for comorbidity?
HIGH RISK

What if…
Lab data could help intervene before the disease experiences a comorbidity?
FACILITATED INTERVENTION

What if…
Lab data could help those patients into care?
IDENTIFY CARE GAPS
Lab is an under-leveraged asset and a subspecialty of medicine

5-LAB: BEST BARGAIN

Highest yield/return on investment

- For every dollar we spend on healthcare, three cents is spent on diagnostics
- The diagnostic lab investment gives us the most clinically actionable data
- Diagnostic labs help to manage “sick care” to and optimize reduce LOS
- More importantly, lab can help with these clinical strategies of value-based healthcare…
Harnessing the power
Lab cannot do this ALONE!

Laboratory Data

Social Determinants of Health

CLINICAL CARE

Aspent Health.
Laboratory 1.0 to 2.0 Transition

Laboratory 2.0 Focus

Laboratory 1.0

Doesn’t go away!
May be more important than ever
Needs to run like it ‘always has’

Laboratory 2.0

Needs to be something that we do ‘on top of’ Laboratory 1.0
Needs to be complementary to Laboratory 1.0 activities
Needs to focus on outcomes, and the patient
### Lab 1.0  
**transactional**

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sick Care</strong></td>
<td>Receive Test Sample</td>
</tr>
<tr>
<td><strong>Disease Screening</strong></td>
<td>Protocol-driven</td>
</tr>
<tr>
<td><strong>Wellness Programming</strong></td>
<td>Managed by Treating Physician</td>
</tr>
<tr>
<td><strong>Payment Models</strong></td>
<td>Lab is a Commodity</td>
</tr>
</tbody>
</table>

### Lab 2.0  
**integrative**

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health Care</strong></td>
<td>Population Health using Lab data</td>
</tr>
<tr>
<td></td>
<td>Time-to-Diagnosis</td>
</tr>
<tr>
<td></td>
<td>Care Optimization</td>
</tr>
<tr>
<td></td>
<td>Monitoring Optimization</td>
</tr>
<tr>
<td><strong>Risk Management</strong></td>
<td>Identification of Risk</td>
</tr>
<tr>
<td></td>
<td>Escalation/De-escalation of Acuity</td>
</tr>
<tr>
<td><strong>Wellness Programming</strong></td>
<td>Gaps-in-Care closed using Lab data</td>
</tr>
<tr>
<td><strong>Predictive Analytics</strong></td>
<td>What will happen? When? Why?</td>
</tr>
<tr>
<td><strong>Payment Models</strong></td>
<td>Value of Lab for Total Cost-of-Care</td>
</tr>
</tbody>
</table>

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**Clinical Lab 2.0 (2017)**

Crawford JM et al., *Academic Pathology* 2017; DOI: 10.1177/2374289517701067
To Err Is Human: Building a Safer Health System

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.
<table>
<thead>
<tr>
<th>Lab 1.0 transactional</th>
<th>Lab 2.0 integrative</th>
<th>Types of Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sick Care</strong></td>
<td><strong>Health Care</strong></td>
<td>Diagnostic</td>
</tr>
<tr>
<td>Receive Test Sample</td>
<td>Population Health using Lab data</td>
<td>Error or delay in diagnosis</td>
</tr>
<tr>
<td>Result Test Sample</td>
<td>Total Cost-of-Care leveraging Lab data</td>
<td>Error in the performance of an operation, procedure, or test</td>
</tr>
<tr>
<td><strong>Disease Screening</strong></td>
<td>Time-to-Diagnosis</td>
<td>Error in administering the treatment</td>
</tr>
<tr>
<td>Protocol-driven</td>
<td>Diagnostic Optimization</td>
<td>Error in the dose or method of using a drug</td>
</tr>
<tr>
<td>Scheduled by Treating</td>
<td>Care Optimization</td>
<td>Avoidable delay in treatment or in responding to an abnormal test</td>
</tr>
<tr>
<td>Physician</td>
<td>Therapeutic Optimization</td>
<td>Inappropriate (not indicated) care</td>
</tr>
<tr>
<td><strong>Wellness Programming</strong></td>
<td>Monitoring Optimization</td>
<td>Preventive</td>
</tr>
<tr>
<td>Managed by Treating</td>
<td>Screening Optimization</td>
<td>Failure to provide prophylactic treatment</td>
</tr>
<tr>
<td>Physician</td>
<td>Risk Management</td>
<td>Inadequate monitoring or follow-up of treatment</td>
</tr>
<tr>
<td><strong>Payment Models</strong></td>
<td>Identification of Risk</td>
<td>Other</td>
</tr>
<tr>
<td>Lab is derivative</td>
<td>Real-time tracking of Risk</td>
<td>Failure of communication</td>
</tr>
<tr>
<td><strong>Wellness Programming</strong></td>
<td>Escalation/De-escalation of Acuity</td>
<td>Equipment failure</td>
</tr>
<tr>
<td>Lab is a Commodity</td>
<td></td>
<td>Other system failure</td>
</tr>
<tr>
<td><strong>Payment Models</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value is Cost-per-Test</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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

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**IOM 1999**

“If we (lab) wait, by the time we label a person “patient,” we have failed that person.”

Lab 2.0 a cornerstone of:
• Pre-patient
• Pre-care
• Consumer wellness

The Bell-Curve Shift in Population
Shifting the whole population into a lower risk category benefits more individuals than shifting high-risk individuals into a lower risk category

POPULATION APPROACH
Encourage everyone to change, shifting the entire distribution

RISK REDUCTION APPROACH
Move high-risk individuals to normal range

Key Takeaways

✓ Lab is the first to know - real time actionable data
✓ Lab is the first responder
✓ Lab is the “epicenter of informatics”
✓ Labs should be the “Command Center”

The work is before us!

The lab’s potential impact doesn’t end when we release a result; rather, that’s where it begins!
DO WE HAVE A SEAT AT THE TABLE?

MEETING SHOULD NOT START IF LAB IS NOT PRESENT

Thank you!
Not a Transition but a Focus on Lab 2.0

**Lab 2.0**

**Measured Outcomes**
Demonstrating value clinically and financially
Patient centered, Predictive analytics

**Lab 1.5**

**Identify and engage customers/partners**
Education and consultation
Interpretation of results

**Lab 1.0**

**Laboratory Testing and Utilization**
Efficient and accurate results
Ordering, sample centered

Source: Adapted from Project Santa Fe, Clinical Lab 2.0 – Developer: Beth Bailey

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What Defines a lab 2.0 project?

- Value Based
- Outcomes Based
- Patient Centered