The PCL Alverno Difference – Quality Driven – Patient Focused
Elevating the clinical laboratory and diagnostic capabilities of hospitals and healthcare providers.
PCL Alverno: System of 27 Hospital Laboratories Transforms to Meet Evolving Need of Integrated, Proactive, and Personalized Healthcare

Sam Terese, CEO
PCL Alverno
sam.terese@franciscanalliance.org
Agenda

• A brief PCL Alverno overview
• How we see healthcare today
• And how we responded
Our History

1999
- Alverno as SSFHS owned integrated lab serving NW Indiana
- 6 Hospitals

2005
- Merge with MedCentre Lab (integrated 3 hospital labs), Provena and SSFHS hospitals
- 18 Hospitals

2008
- 3rd owner joins - Resurrection Health Care
- 26 Hospitals

2012
- Additional hospital purchased by one system, Franciscan Alliance
- 27 Hospitals

plus 4 non-owned
Today’s Profile Parameter
PCL Alverno/Alverno Provena Hospital Laboratories

Today

• Region: Major metropolitan Chicago, Lafayette & Indianapolis, central Indiana and central Illinois.
• Business Center and Central laboratory located in Hammond, IN

Size

• Volume: About 8 million patient encounter each year, Alverno touches a patient’s life
• Employees: 1,600+
• 27 hospitals: over 5,900 patient beds
• Two freestanding emergency departments
• 23 patient service centers
• 2,500 physician clients, staff in multiple physician offices
Today’s Profile Parameter
PCL Alverno/Alverno Provena Hospital Laboratories

Stakeholder/Value
- Franciscan Alliance and Presence Health
- Value:
  - providing clinical insight for effective utilization of laboratory services
  - ongoing cost reduction, revenue growth, employed physicians

Value Proposition
- Elevating the clinical and diagnostic laboratory capabilities of hospitals and health care providers
Company Structure

**PCL Alverno (LLC)**
- Commercial Entity: Outreach testing and testing integrated from hospitals

**APHL, Inc. (Hospital Cooperative)**
- 501e shared services corporation
- Non-profit
- Non taxable entity
- Hospital laboratories
## Acute Care Service “Model”

<table>
<thead>
<tr>
<th>Testing needed to meet STAT or urgent needs is performed in the hospital laboratory</th>
<th>Testing performed at the central laboratory</th>
</tr>
</thead>
</table>
| • 60% of testing done at the hospital lab  
• Range of integration for current hospital depends on the complexity of the hospital services, up to 40% | • All non-STAT microbiology tests  
• All non-STAT outreach testing  
• Anatomic pathology slide processing  
• Moderate complexity testing such as hepatitis, HIV, etc. |
Healthcare Today:

“Toto, I have a feeling we’re not in Kansas anymore.”

L. Frank Baum
Which Yellow Brick Road:
Affordable Care Act

– It is now 5 years old!
Which Yellow Brick Road:

Rising costs, lower margins
Few early adopters
Consolidation
Focus on throughput
“Things will get better” mentality
Slow IT deployment & data mining

Inadequate strategic planning.... poorer execution
Acquisitions & divestitures
Failure to identify point of inflection
Diminished business model
Private Equity emergence

Increased competition
Lagging process improvement
Increasing Regulatory requirements
Outsourcing
Poor quality & dramatic consequences

“Inadequate strategic planning.... poorer execution”

“Things will get better” mentality
Slow IT deployment & data mining

Increased competition
Lagging process improvement
Increasing Regulatory requirements
Outsourcing
Poor quality & dramatic consequences
## Are We Really Different?

<table>
<thead>
<tr>
<th>BANKING</th>
<th>AIRLINES</th>
</tr>
</thead>
<tbody>
<tr>
<td>10,961 Commercial banks in 1993</td>
<td>9 Major domestic airlines in 2004</td>
</tr>
<tr>
<td>5,876 Commercial banks in 2013</td>
<td>4 Major domestic airlines</td>
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### Health Care Industry Parallels
- High fixed/infrastructure costs
- Technology disrupters
- New economic models
- Threat from alternative providers
- Changing consumer preferences
- Disintermediation

### Health Care Industry Parallels
- Channel strategy
- Fictitious occupancy rates
- New economic models
- Disintermediation

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Total number of hospital in USA: ?
Trends or New Norms

- Medicare cuts are the norm: $260 billion by 2022
- More mandatory risk on the horizon
- Increasing number of Medicare ACO: Today approximately 46 - 52 million patients treated by ACOs
- Medicare Advantage enrollment growing: 19.0 million by 2020
- Employer picture: Concerns like “Cadillac” Tax coming in 2018
- Employer considering whether to drop coverage, shift to private exchanges or become self funded.

Data: Sg2/Advisory Board
Trends or New Norms

- **Premium sensitivities**
  - Driving narrow networks (some estimates report a 26% reduction in premiums)

- **High deductible plans - overwhelming choice of exchange market**
  - high out of pocket discourages inappropriate utilization
  - increase risk of bad debt
  - price-sensitive patients seek lower cost options

Data Source: Sg2/Advisory Board
Disintermediation Coming to Your Market?

B2B
WHOLESALE
Providers sell themselves to physicians and insurers.
Employers make decisions on behalf of individuals and their families.

B2C
RETAIL
Providers sell themselves to consumers.
Individuals make decisions on benefits, providers and course of care.

B2B = business to business; B2C = business to consumer.
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Why Retail?

Why Is This Happening?

**Factors Driving the “Retailization” of Health Care**

1. New benefit and network designs are making the health care consumer more selective and cost conscious.
2. Public and private insurance exchanges are making the consumer a more active participant in the health care process.
3. Entrepreneurs, governments, payers and health systems are bringing price transparency to the marketplace.
4. Consumers continue to be attracted to convenient and cost-effective sites of care (eg, retail clinics, virtual care).
One Version of the Future Path

Build a Multichannel Approach for Sustainable Growth

Sg2 Channel Spectrum

MATURE

EVOLVING

EMERGING

*Ambulatory campuses vary widely, from multidisciplinary, comprehensive centers to facilities focused on specific services (e.g., outpatient rehab, endoscopies, urgent care) CAM = complementary and alternative medicine.

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What Else are Hospitals Doing? 
Short Term

- Strengthen balance sheet - move focus on cost now more than ever
- Control utilization
- Increase physician alignment and productivity
- Evaluate the future impact of the Affordable Care Act

Kaufman Hall Integrated Management Solutions
What Else are Hospitals Doing? Short Term

- How are acute and ambulatory services positioned from a price and value perspective in the marketplace?
- How can we assess and improve consumer experiences across the network?
- How can we prepare for external competition from virtual health channels in the marketplace?
Which Yellow Brick Road:
Strategic Planning Process
Alverno’s Key Initiatives

- Currently within the systems there are multiple ACOs, one pioneer member exited.
- Physician practice acquisition - driving “Captured Outreach”.
- Cost reduction initiatives - targeting 25% over the next 4 - 5 years.
- Key clinical initiatives - blood utilization, sepsis protocol development, EBOS and other utilization initiatives.
- Pathologists – Vice Presidents of Medical Affairs (VPMAs)
Key Initiatives
Collaborative Partnerships

• Beckman Coulter Diagnostics - US Microbiology Innovation Center

• Copan Diagnostics, Inc. Microbiology Automation (WASP Lab™) - Alverno is the first laboratory in United States with full scale microbiology automation and fourth laboratory worldwide

• Introduction MALDI-TOF Matrix-Assisted Laser Desorption Ionization Time of Flight Mass Spectrometry - reducing the time to identify microorganisms by 16 to 24 hours
Key Initiatives Technology

• Expanding oncology diagnostics: Fluorescent in Situ Hybridization (FISH), flow cytometry
• Molecular expansion: Infectious disease
• Digital imaging in place: Applications in anatomic pathology and microbiology
• Purdue University Calumet’s Center for Innovation Visualization and Simulation (CIVS): First U.S. laboratory to incorporate this technology for laboratory design
• MedSpeed®: National presence for logistics
• Supporting Research: IVDiagnostics, Inc. - new circulating tumor cell diagnosis and others still pending
Which Yellow Brick Road:
Standardization Extends to our System Owned Practices:

- Standard menu of point of care testing
- Standard list of equipment and kits, etc.
- Standard training and competency
- Standardized policies and procedures
Just Completed Second Round of Analyzer Standardization

• Four automation lines
• In excess of 150 analyzers installed
• Twenty-eight locations interacting with three different laboratory information systems
• A complete middleware install
• New technologies for Alverno - CellaVision®, LC/MS
• All done in less than six months
Why Do Good Strategies Fail?

“Leadership without the discipline of execution is incomplete and ineffective. Without the ability to execute, all other attributes of leadership become hollow.”

Larry Bossidy
Retired CEO of AlliedSignal

Fact: Only **62%** of projects meet their goals and business intent and about **17%** fail outright.¹

¹: Project Management Institute, Inc. Pulse of the Profession™ The High Cost of Low Performance, March 2013
Project Management

• A project manager’s job is …
  – To get the best performance out of each team member
  – Synchronize all of the moving parts
  – Set priorities and establish accountability for each step
  – Make adjustments and respond quickly to unexpected challenges
Which Yellow Brick Road?
Key Quality Metrics: Traditional

• Critical Value Reporting is 99.8% reported within 30 minutes – industry average 98%

• 98% of routine tests are available by 7:00 a.m. the next day, industry standard is 98% available by 8 a.m.

• Pap test turn-around-time is currently 4.0 days, industry standard is 5-6 days.

• Alverno Patient Service Center wait times are less than ten minutes 90% of the time, industry standard is fifteen minutes 90% of the time.
Key Quality Metrics: Business Orientated

• Alverno’s attrition rate is less than 1% of client base, national average for commercial laboratories is 6%.

• Billing error rate is less than 1%.

• 90% of incoming calls to client service are answered within 5 seconds.

• 90% of calls placed to client services are resolved in one call.
Are We Doing Enough?

• It can’t stop here - collaboration needs to continue
• Finding a partner who brings additional value and the potential to drive even greater performance is even more important to laboratories today

Enter Danaher Business Systems!
Fortune 200, NYSE Listed Science and Technology Leader:

- Designs, manufactures and markets innovative products and services to professional, medical, industrial and commercial customers

- Portfolio of premier brands - highly recognized in each of the markets we serve
Danaher Business Systems

• Proven Wall Street success story
• Danaher outperforms the market
• Compete for shareholders
• A set of tools and techniques
• But even more - a cultural transformation
• It is no longer just about a purchase of equipment - but a collaboration
• Innovation defines their future
• Kaizens are a way of life
DBS More Specifically

**Define the Problem**
- Articulate the Problem Statement
- Determine if a gap from a standard
- Determine rationale to solve the problem

**Investigate to drive to Root Cause**
- Go to Gemba to Narrow Focus to 3 actual Causes
- Drive to Root Cause – “5 whys”
- Go to the Gemba to Get Evidence and Facts

**Verify and Implement Countermeasure**
- Identify and evaluate possible countermeasures
- Test selected CM and validate effectiveness
- Implement and verify closure of the “gap”

**Ensure Sustainment**
- Focus on the Critical Few Countermeasures
- Identify Owner and Additional resources
- Go to Gemba to Measure Results
Thoughts

Rooted in LEAN concepts
Yet very different

Training and education is focused on managers, supervisor & coordinators

This is where it happens!
New World Partnerships
Driving PCL Alverno to Become a Highly Reliable Organization

Characterized by:

• Long term relationships:
  – understanding future direction of your partner

• Breadth of products and more importantly, services

• Alignment with your strategic direction
### Key Performance Indicator Worksheet

**Production Schedule**

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<tr>
<th>Owner</th>
<th>Mike Sokolowski</th>
</tr>
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<tr>
<td>Date</td>
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**Definition:** Client Production Schedule

**Data Collection Methodology:**
1. Total of tests not verified by 8am will be obtained from the outreach schedule. Outliers will be charted on the daily management display.

**Data Presentation:** Graphical data showing # tests not verified by 8am each day.

**Action Threshold/Target:**
- Corresponds to quarterly QA monitor/scorecard >= 90%. meetings total # x100. Target has been changed to <= 10% tests not verified by 8am or < 0.15% of total testing.

**Interpretation:** Target is <150 or 0.15% of total tests verified before 8am. Urine microscopies and IHCs are the tests that have been problematic this month. On the 6-outer days, it was noted that Support Services received a significant number after 7am on the 7th, and the 27th. On the 7th, which was our highest number of non-conformances we had a formless outage on this day as well which caused delays.

**Limitations On Interpretation:** none

**Action Plan with Implementation Steps:**
1. Have 2-3 techs to come in and help run and verify testing.
2. We are moving forward with the acquisition of the BioRad Turbo for HA1C. This should greatly help with TAT.
3. Support team is peer interviewing for Midnight Clerk staff which will help to get the samples to the techs quicker.
4. The return of an employee on leave will on #2.

**Outcome of implemented action plan (did it improve or get worse?):** Since this is the first month, we will need to evaluate on a monthly to monthly basis.

**Financial impact of failure:** Potential to lose clients to other labs.
Metrics and Measures

- In the Year 2009:
  ✓ tracked and trended about 150 measures

- In the Year 2014:
  ✓ reduced to 31 measures

- Current Year:
  ✓ 15 KPIs
# Example of a Hospital Scorecard

<table>
<thead>
<tr>
<th>Performance or Process Improvement Metrics (PIM)</th>
<th>Monitor/Tracker &amp; Trend</th>
<th>Owner</th>
<th>JOP</th>
<th>Jan</th>
<th>Feb</th>
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<th>Apr</th>
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<th>Oct</th>
<th>Nov</th>
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<tr>
<td>Employee OSHA reportable injuries</td>
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<tr>
<td>People</td>
<td>Monitor</td>
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<tr>
<td>Employee opinion survey results - % of Tier II and Tier III workforce updates action plans</td>
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<td>Site Director</td>
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<td>Plan</td>
<td>100%</td>
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<td>Proficiency Testing Results - 100% of sites complete PT investigation</td>
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<td>Percent of all facets of audits, internal and external, compliance - annual audit/PIC/ConsorMock etc. outcomes follow up</td>
<td>Monitor</td>
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<td>PRBC utilization per patient day</td>
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<td>8 ED STAT Creatinine (BMP) receipt to verify 90% within 40 minutes - hospital sites</td>
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<td>9 ED STAT Troponin receipt to verify 90% within 40 minutes - hospital sites</td>
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<td>Patient Satisfaction - inpatient 95% of sites meet facility goal</td>
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<tr>
<td>Productivity technical - direct labor hours costs (paid hours) per billable test.</td>
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<td>Productivity - non-technical departments</td>
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Which Yellow Brick Road:
Examples of

NEW MEASURES OF PERFORMANCE
# Hemoglobin A1c Story

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### Example Snap Shot of Population Management Data

| PT_LA ST_NAME | PT_FIRST_NAME | S | DOB | PT_STREET_T2 | PT_STATE | PT_CITY | PT_ZIP | PT_PHONE | MRB | BILLINGER | CLINIC code | CLINIC NAME | DOC_STA T_E | DOC_FIRST_NAME | DOC_STREET | DOC_CITY_STATE | DOC_STREET1 | DOC_CITY | DOC_STATE | DOC_ZIP | INSURY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | ANY | Any
Population Management

Hemoglobin A1c- Population Results
2,801 Patient Results
October - December 2014

%
Duplicate Lab Order Alerts

**PROCEDURE DUPLICATE: PLEASE REVIEW**

**Procedure Duplicate Action**

Do you want to stop ordering the order currently being placed?

1. Basic metabolic panel (BMP) - STAT 5/15/14 1538 to 5/15/14
   
   *(Show order information)*

   Or

   *(Remove All)*

   1. *(Remove)*

Do you want to discontinue the following orders that already exist?

1. Basic metabolic panel (BMP) - STAT 5/15/14 1440 to 5/15/14 Status: Sent
   
   *(Show order information)*

   *(Discontinue All)*

   1. *(Discontinue)*

Order duplicate found. Continue to accept these orders?

[Yes]  [No]
# Duplicate Lab Order Alerts

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Closing Comments

• Find great partners and collaborate using the entire scope of capabilities
• There is never a point when you have done enough
• Remember that providing care to patients is a privilege
Thank you!

• Yes, there remain challenges and difficult roads ahead but this is a period of experimentation and a chance for extraordinary creativity.

• *Embrace it!*