Dr. Jackson directs the Informatics Department at ARUP, including the e-business and Medical Content teams.
ACOs and the Clinical Laboratory:
Where to Begin?
1. Understand how ACOs could view diagnostic processes differently than traditional fee-for-service providers.

2. Understand the potential impact of bundling outpatient lab payments.

3. Envision potential roles for laboratories within ACOs.
ACOs and the Laboratory

• Key Questions
  – What do we know about ACOs?
    • What don’t we know?
  – How might diagnostics be managed within an ACO?
  – How can laboratories position themselves in an ACO environment?
ACO Definition

• “…type of payment and delivery reform model that seeks to tie provider reimbursements to quality metrics and reductions in the total cost of care for an assigned population of patients.”
  • Wikipedia
1. Healthcare costs are way too high and getting higher

2. Most people think that we need to tie payment to value.

3. Not much else.
If so much is unknown,

• Can’t we just wait and see?
• How would we get started anyway?
• Can’t we just wait and see?
  • Sure, if you want to risk becoming obsolete.
• How would we get started anyway?
  • Identify the key strategic themes
  • Reinvent your laboratory
<table>
<thead>
<tr>
<th>Complexity</th>
<th>Type of Delivery System</th>
<th>Impact on Utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fee for Service</td>
<td>Medium</td>
<td>Any</td>
</tr>
<tr>
<td>Episode-based (e.g. DRG)</td>
<td>Very High</td>
<td>Highly integrated only</td>
</tr>
<tr>
<td>Capitation</td>
<td>Low</td>
<td>Highly integrated only</td>
</tr>
</tbody>
</table>
Cumulative Impact of Growth Rates, 1970–2008*

Times More Expensive Than in 1970

NHE Per Capita
Health spending in 2008 was more than 21 times 1970 levels.

Consumer Price Index
Consumer prices in 2008, as measured by the CPI, were 5.5 times 1970 levels.

*Selected rather than continuous years of data shown prior to 2005.
What if Lab Reimbursement Dropped to Zero?
Activity-Based Costing in Health Care

• “How to Solve the Cost Crisis in Health Care”
  – Interview and blog comments available on www.hbr.org

• Current model: Department-based costing
  – E.g. total annual lab cost

• Future model: Condition-based costing
  – E.g. average lab cost per CABG
How Might an ACO handle Dx?

- Lab payments bundled together with other clinical costs as an episode-based payment
- Incentive for hospital/clinic to optimize use of Dx
- Active utilization management
  - By whom?
Clinical Value

- Accurate Dx & mgmt
- Minimize total cost of care
Lab Strategies to Create Clinical Value

- “But we’re already creating clinical value!”
  - How we can and need to do better
- Lessons from other disciplines
  - Bookselling
  - Digital music
  - Pharmacy
- Bringing it all together
  - Clinical leadership
  - Analytics
  - Decision support
Diagnostic Cycle

1. MD orders test
2. Lab performs test
3. Lab sends report to MD
4. MD interprets and applies result
5. Order and specimen submitted
Diagnostic Cycle

MD orders test

MD interprets and applies result

Lab performs test

Lab sends report to MD

Order and specimen submitted

Traditional Focus of Laboratories
Diagnostic Cycle

Primary Opportunities

- MD orders test
- MD interprets and applies result
- Lab sends report to MD
- Lab performs test
- Order and specimen submitted
How Effectively do Doctors Use Laboratory Tests?

HPV as a prototypical example
HPV Guideline from ASCCP

- Women under 21
  - HPV testing is contraindicated
- Women 21 to 30
  - HPV testing should not be used in primary screening
  - HPV testing may be used for evaluating certain cervical lesions (ASC-US)
- Women over 30
  - HPV testing may be used for evaluating cervical lesions and for screening
  - If HPV and cytology negative only screen every 3 years
HPV Order Volumes by Age (National sample)

Number of test orders per month from 110 hospitals and laboratories

Source: Shirts and Jackson, J Pathology Informatics
Time to Repeat HPV Test following Negative Test Test
<table>
<thead>
<tr>
<th>Strategy</th>
<th>Annual Cost (Rough estimate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Pap alone</td>
<td>$150/year</td>
</tr>
<tr>
<td>Annual Pap w/HPV</td>
<td>$250/year</td>
</tr>
<tr>
<td>Pap w/HPV, 3-year intervals</td>
<td>$83/year</td>
</tr>
</tbody>
</table>
Diagnostic Cycle

Order and specimen submitted

MD orders test

Lab performs test

Lab sends report to MD

MD interprets and applies result

Primary Opportunities
Example: Music Retailing
Pharmacy

1980’s
- Factory mindset
- Receive orders, process and distribute meds

2000’s and beyond
- Professional mindset
- Active clinical role
- Oversee formularies
- Optimize individual med management
- Educate clinicians
Diagnostic Cycle

- Lab performs test
- Lab Formulary Committee
- MD orders test
- MD interprets and applies result
- Lab sends report to MD
- Fully formatted reports
- Diagnostic decision support
- Easy to put test in context and interpret
- User-friendly menus
- Analytics to detect inappropriate orders

Order and specimen submitted
How Labs Can Add Clinical Value

- Clinical leadership
- Analytics
- Decision support
• “Laboratory Formulary” Committees

• Visible Clinical Pathologists
Audience response question

- How would you describe the relationships between your pathologists and your local physicians?
- The pathologists have little to any interaction with clinicians
- The pathologists interact occasionally with clinicians, e.g. answering questions and going to tumor boards
- The pathologists engage clinicians proactively to promote effective use of the laboratory.
• Need to understand your doctors’ ordering practices

• Compare to:
  – Peers
  – National/local guidelines
Doctors have questions about lab tests.

Are we making it easy for them to get the answers?
Summary

- In an ACO world,
  - Clinical Value = Best Dx at Low $
  - Become clinical enterprise, not order-filling factory
  - Need to organize lab by medical condition, not by technology
  - Need to integrate across the end user (physician) experience
• “I believe the primary cause of too much care is fear of lawsuits. Can you comment?”
Question #2

• “ACO seems to affect hospital labs, but what about reference labs who are remoted from ordering physicians?”
• “How are national labs responding to the ACO ideas where payments would be made to the hospital and then distributed to independent labs?”
“Do we have examples of ACO’s already in existence? It would seem that there are already examples of them today (group Health as an example). What have we learned already from these institutions?”
“Am I correct in my understanding that the lab will be directing the physicians? If so, is it realistic that physicians are going to be open to taking direction from the lab?”