Differentiate Through Value:

Why Lab 2.0's Future State Requires Labs to Collaborate with Insurers, Physicians, and ACOs to Improve Patient Outcomes and Lower the Cost of Care

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Differentiate Through Value

Sonora Quest Laboratories

- **Sonora Quest Laboratories, LLC (SQL)** is a joint venture, established in 1997, between Quest Diagnostics (a Fortune 200 company) and Banner Health (the largest non-secular health delivery system in the U.S.).

- **Laboratory Sciences of Arizona, LLC (LSA)** provides oversight and strategic direction for 30 Hospital, Rapid Response, and Commercial laboratories supporting Banner Health Hospitals, Academic Medical Centers and Cancer Centers across the state of Arizona and 5 western states (California, Colorado, Nebraska, Nevada, and Wyoming).

- Our 3,200+ employees serve more than 22K patients per day throughout the state of Arizona and perform > 60M diagnostic tests per year.

- We offer a comprehensive test menu encompassing routine, molecular, prescription drug monitoring, genetic/genomics, and pathology testing services across the continuum of care.

- 98% of all commercial testing is performed at our primary testing facilities located in Tempe, Tucson, Flagstaff, Prescott, and Yuma.

- Sonora Quest Laboratories is the market share leader in clinical laboratory testing in Arizona with more than 75 Patient Service Centers located across the state.

- Our services are focused on delivering data-driven insights to support improving health outcomes.
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Current State Observations: Cycle of Traditional Lab Management

1. **Vendor relationship w/ Insurers/Providers & ACO’s**
2. **Lack of vision w/ respect to creating and proving value of lab data**
3. **Cost focused due to reimbursement challenges**
4. **Resistance to change & skepticism towards innovation**
5. **Primary focus on operations**
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Market Factors Forcing Change

Volume & Fee for Service → Value & Bundled Payment

Shift from Acute Care Focus to Preventative & Wellness

Focus on Personalized Medicine (Micro) & Population Health (Macro)

Shift to Consumerism

Reimbursement Challenges & PAMA

Technological Advancements, Disruptors, & New Entrants
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Partner – Collaborate - Lead

- Develop partnerships – not vendor relationships
- Be a stakeholder in helping improve patient outcomes – not just delivering test results
- Embrace consumerism – not minimalism
- Meet & collaborate on value add strategy – not just for contract negotiations
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Demonstrate Value Add Through Innovation & Agility

- Innovation – anything that adds value and is new (to your organization)
- Focus and commitment to continual innovation
- Develop organization culture that supports agility not bureaucracy
- Embrace change & transformation
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Sonora Quest Laboratories - Lab Future State 2.0 (2018-2021)

- Develop robust data analytics (Actionable Insights Management) to support at risk groups and insurers
- Collaborate to provide real time and historical lab data paired with predictive algorithms to proactively manage risk – known and unknown
- Improve HEDIS, STAR & Quality Metrics, patient outcomes providing partners with risk adjustment factor revenue lift, and interventional cost savings
- Assist our partners with bridging the gap from volume and fee for service to value and bundled payments
# Differentiate Through Value

**AIM™: Actionable Insights Management – Salient Features**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population health analytics solution</td>
<td>Analysis, interpretation and visualization of clinical laboratory data</td>
</tr>
<tr>
<td></td>
<td>Assisting partners in the oversight of population health management and potential risk factors</td>
</tr>
<tr>
<td>Integrates laboratory data with other clinical, operational and financial data</td>
<td>Supports analysis at the aggregate macro level for population health, as well as analysis and insights at the personalized patient level</td>
</tr>
<tr>
<td>Actionable Insights into several disease states</td>
<td>Demonstrated &amp; published case studies w/ ACO's</td>
</tr>
</tbody>
</table>
Differentiate Through Value: Prediabetes Dashboard – Data into Action

Using American Diabetes Association Clinical Guidelines, patients without a diabetes diagnosis are placed into ‘Normal’, ‘Prediabetic’ or ‘Undiagnosed Diabetic’ Groups, based on most recent result.

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Prediabetic Grouping</th>
<th>Normal</th>
<th>Prediabetic</th>
<th>Undiagnosed Diabetic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hemoglobin A1c</td>
<td></td>
<td></td>
<td>6.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Glucose</td>
<td></td>
<td>2.333</td>
<td>1.065</td>
<td>1.07</td>
</tr>
</tbody>
</table>

Selecting a segment of the population takes the user to a custom report, which includes historical results.
Differentiate Through Value: Chronic Kidney Disease Dashboard – Data into Action

Applying clinical guidelines from Kidney Disease: Improving Global Outcomes (KDIGO), patients are grouped from ‘Low’ to ‘Very High Risk’ of developing CKD based on most recent eGFR and Urine albumin results.

New CKD Panel engaging Primary Care Providers in diagnosing CKD patients earlier. AIM™ Analytics provides baseline data for ordering patterns and utilization.

AIM™ takes big data analysis to small data for patient interaction.
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Data into Action – Case Study 1 – Accountable Care Organization

- **Strategic Partnership between Commonwealth ACO and SQL:**
  - to improve communication with providers,
  - provide actionable patient data, and
  - create data focused care models

- **Support for true longitudinal health record**

- **Care Coordination**
  - 78 year-old, diabetic female hospitalized for episodes of hyperglycemia. Seen post-discharge in the Commonwealth Chronic Care Management program, the Chronic Care Coordinator (CCC) utilized AIM during patient assessment.
  - Results indicated that two separate endocrinologists ordered lab work for patient. AIM guided CCC in identifying ordering physicians and time frames for requested lab orders.
  - In reviewing case with patient and PCP, hyperglycemic episodes were due to over-prescription of diabetic medication. CCC guided patient through process of choosing one endocrinologist for follow up. As a result, the endocrinologist, PCP, and pharmacy were able to complete a thorough medication reconciliation, eliminating multiple prescribers of her diabetic medications. CCC followed up with patient to ensure she was taking medications as prescribed.
  - AIM facilitation Commonwealth Care Management team with necessary clinical laboratory data for determination of appropriate test ordering and improvement of patient’s health.
AIM™: Actionable Insights Management

Data into Action – Case Study 2 – Medicare Advantage Population

Provider Organization & Payer
- Providing secure delivery of dashboards through Tableau Server since May 2017
- Data provided in near real-time
- 2017 Successes
  - Prediabetic Population
    - 5,500 patients identified as ‘Prediabetic’ or ‘Undiagnosed Diabetic’ based on clinical guidelines
    - 575 carried Diabetes Diagnosis in AZPC Claims data
    - >90% of patients identified with interventional opportunities
  - Collaboration for 2017 STAR Measures
    - Kidney Disease Monitoring: 5 STARS achieved with 98% (3 STARS in 2016)
    - Hemoglobin A1c: 5 STARS achieved with 83.96% (Completed in Oct 2017)
    - Colorectal Cancer Screen: 3 STARS achieved with 71.2% (2 STARS in 2016)
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### Data Into Action – Insurer Organization

Pilot in the works with a major insurer to assist insurer with actionable insights to manage their diabetic patient population

Ability to provide insights into undiagnosed, pre-diabetic and diabetic population and patient management

Infrastructure and capability in place to assist insurers with pro-actively scheduling follow-up screenings to monitor population outcome improvements

Power of longitudinal lab data augments and complements analytics solutions in place at major insurers

And value does not just have to be in negotiating a better contract but also sharing the risk with the insurer and or monetizing value provided by providing this information.
### AIM™: Actionable Insights Management

**Data into Action – Insurers – Risk Management**

**Major Insurer in Arizona**

<table>
<thead>
<tr>
<th>Value Factor</th>
<th>Measure</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients in Population for Insurer (2018)</td>
<td>421,453</td>
<td>SQL Claims data - identified Insurer with DOS</td>
</tr>
<tr>
<td>% of diabetic population</td>
<td>9.1%</td>
<td>Insurer patient claims data</td>
</tr>
<tr>
<td>Patients with Diabetes</td>
<td>38,352</td>
<td>Insurer patient claims data</td>
</tr>
<tr>
<td>Annual cost to treat 1 Diabetes patient</td>
<td>$16,900</td>
<td>American Diabetes Association</td>
</tr>
<tr>
<td>Annual Diabetes Population Burden</td>
<td>$648,152,569</td>
<td>American Diabetes Association</td>
</tr>
<tr>
<td>% of Population with Poorly controlled Diabetes (&gt;9% A1c)</td>
<td>9%</td>
<td>Insurer MA population</td>
</tr>
<tr>
<td># of Patients with Poorly controlled Diabetes (&gt;9% A1c)</td>
<td>3,452</td>
<td>Insurer MA population</td>
</tr>
<tr>
<td>Cost savings per patient for A1c improvement of 1-1.5%</td>
<td>$1,717</td>
<td>Article: Medical Claim Cost Impact of Improved Diabetes Control for Medicare and Commercially Insured Patients with Type 2 Diabetes, Journal of Managed Care Pharmacy.</td>
</tr>
<tr>
<td>Annual Cost Savings in poorly controlled population of A1c improvement of 1-1.5%</td>
<td>$5,926,569</td>
<td>Poorly Controlled Diabetes Patients X Cost Savings of 1 – 1.5% A1c improvement: 3,452 X $1,717 = $5,926,569</td>
</tr>
<tr>
<td>Three-year Projected Cost Savings in poorly controlled population of A1c improvement of 1-1.5%</td>
<td>$17,779,707</td>
<td></td>
</tr>
</tbody>
</table>
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Sonora Quest Laboratories – AIM™: Actionable Insights Management

- **Near Real Time Data**
  Data is provided in near real time, facilitating timely effective decision-making for your patient population

- **Chronic Disease Management**
  Dashboards with aggregated data provide tailored insights for chronic conditions including Diabetes and Chronic Kidney Disease, or Prescription Drug Monitoring

- **Complete Result History**
  Our patient-centric queries provide comprehensive historical results

- **Risk Assessment**
  Algorithms using clinical guidelines provide insight into patients at-risk for developing chronic conditions

- **Quality Measures Impact**
  Data needed to meet Quality Measures or close gaps in care are provided in an easy-to-use, customizable format

- **Analytics Consultation**
  Our dedicated Analytics team works in partnership with you to determine the best solutions to meet your population health goals
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Building Our Analytics Platform

**Investments in Infrastructure**
- Patient-Centric Platforms
  - Laboratory Information System
  - Enterprise Master Patient Index (EMPI)
  - SQL queries to aggregate data
  - Ad-hoc reporting by request

**Building the Foundation**
- Dedicated Data mart
  - Data elements from disparate systems
  - Selected data fields
  - Building enhanced reports using MS Excel

**Selecting a Visualization Software**
- Tableau Platform
  - Ease of use for end users
  - Ability to share via HIPAA-secure Tableau cloud server
  - Visualizations create compelling narrative

**Dashboard Development**
- Collaborative Effort
  - Medical Director approval on all dashboards
  - Predictive Analytics – Interventional and RAF opportunities with BaseHealth

**Ongoing: Engage Stakeholders and End Users**
- Achieve Triple Aim of Healthcare – Improve Cost, Quality, Patient Experience
- Provide actionable data in an easy-to-use format to close gaps in care, assess risk within populations
- Current State: Driving data to the Point of Care to enable real-time decision-making based on relevant laboratory data
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Actionable Risk Management (ARM)

- Analytics platform that identifies unknown risks in patient populations for improved outcomes and presents opportunities for cost savings for healthcare systems.

- Utilization of laboratory data in conjunction with insurance claims data, eligibility data, published clinical research and cutting-edge machine learning to prospectively identify population health risks, encourage clinical intervention and uncover risk adjustment (RAF) revenue opportunities.

- Assists insurers and Accountable Care Organizations to identify and stratify unknown risk in population health to the specific patient level, to close potential gaps in patient care, and identify opportunities for interventional cost savings.

- Case Study for a sample population of 10,000 lives, utilizing clinical laboratory data to identify associated risk within the population, discovering both potential risk and interventional opportunities, giving credence to both the AI-powered algorithms and value of the stand-alone laboratory data.
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Summary

"Everyone's talking about it, no one really knows how to do it — everyone thinks everyone else is doing it, so we all say we're doing it," Deb Gage, president and CEO of Medecision

In today's context and presentation – it is about collaboration to improve outcomes and reduce cost of care. And yes there is no magic bullet but you have to start somewhere to be relevant, to survive and succeed.

Laboratories are a gold mine of information and hopefully we at Sonora Quest have demonstrated how to leverage this information to help positively impact outcomes and help reduce the cost of care.

Thank you!