Using Analytics To Transform Your ACO

How to Develop Effective Cost Reduction Strategies

Presented July 2016

Agenda and Presenter

• External Forces and Market Response
• Critical Success Factors
• Analytics to Drive Results
• The Road Forward

Verisk Health delivers the data services, analytics, and advanced technologies that inform smarter business decisions and reduce risk.

Juliana Hart, BSN, MPH
Director, Provider Solutions
Aligning Payment, Risk, and Quality of Care to Achieve Value

Providers
- Identification & Stratification of the Population
- Medical Cost Management
- Population Health Program Design Evaluation
- Provider Performance Assessment
- Quality Assessment and Reporting
- Risk Contract Management and Budgeting
- Out-of-Network Insights

Employers
- Health & Productivity Data Integration & Warehousing
- Data-Driven Benefit Design & Program Measurement
- Cost-Driver Reporting and Analysis
- Plan Modeling and Budgeting
- Employee Risk Profiling & Gaps-in-Care Identification
- Vendor Selection and Management
- Benchmarking

Health Plans
- Risk-Adjusted Revenue Integrity
- Payment Accuracy and Fraud Prevention
- Quality Measurement and Reporting
- Population Health Risk Management
- Account Group Reporting
- Provider Network Management

External Forces Driving Healthcare Change and the Market's Response
Health Reform is Changing the Playing Field for Payers and Providers

- Reimbursement: Shifting from FFS to Value-Based
- Regulatory / Reporting Requirements
- Medical Cost Management / Care Coordination
- Providers Bear Increasing Risk
- Aligning Quality & Payments
- Analytics/Reporting Capabilities
- Connectivity / IT Infrastructure
- Bending the Cost Curve / Fixed Pie

- Timing likely to be gradual, although accelerating
- Geography & market share matter
- Structural considerations – type of risk
- Broad range of capabilities required (IT, analytics, actuarial, consulting, research)
- IT / Connectivity critical – nascent phases of development; clinical data challenges

CMS is leading the way…

“Our goal is to have 85% of all Medicare fee-for-service payments tied to quality or value by 2016, and 90% by 2018. Perhaps even more important, our target is to have 30% of Medicare payments tied to quality or value through alternative payment models by the end of 2016, and 50% of payments by the end of 2018.”
2020: Quality Measures Proliferate with Direct Linkage to Payment

Source: Leavitt Partners (Quality Metrics); ABCO investor presentation

Medicare VBP Program Domain Weights

Average Inpatient Case Mix by Volume

Source: Leavitt Partners (Quality Metrics); ABCO investor presentation

CMS Innovation

Innovation and Alternate Payment Models
- Value-based Purchasing
- ACOs, Shared Savings
- Episode-Based Payments
- Medical Homes and Care Management
- Data Transparency
- BPCI Program
- CCM (chronic condition management)

New Medicare ACO model with upfront investment:
CMS announced up to $114 million in upfront investments to ≤75 Medicare Shared Savings Program (MSSP) ACOs, which is a continuation of the Advance Payment Model. Focus: rural and underserved areas.

Bundled Payment Pilot
CMS established a pilot to test a mandatory bundled payment model for virtually all acute care hospitals in 75 geographic areas for hip and knee replacement procedures (DRGs 469-470). The proposed model, called the Comprehensive Care for Joint Replacement (CCJR) Model, will run from 4/1/2016 to 12/31/20.
Financial Incentives Drive Quality Improvement in Medicare Advantage Programs

- There is a growing need to demonstrate that you provide high-quality services.
- The percentage of members with 4/5-star plans has increased from 29 percent in 2012 to 60 percent in 2015.
- Low-performing plans have exited the market.

### Medicare Advantage Enrollment by Star Rating

<table>
<thead>
<tr>
<th>Year</th>
<th>5 Stars</th>
<th>4.5 Stars</th>
<th>4 Stars</th>
<th>3.5 Stars</th>
<th>3 Stars</th>
<th>2.5 Stars</th>
<th>2 Stars</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>9%</td>
<td>10%</td>
<td>10%</td>
<td>34%</td>
<td>29%</td>
<td>18%</td>
<td>8%</td>
</tr>
<tr>
<td>2013</td>
<td>9%</td>
<td>16%</td>
<td>21%</td>
<td>36%</td>
<td>20%</td>
<td>17%</td>
<td>6%</td>
</tr>
<tr>
<td>2014</td>
<td>10%</td>
<td>21%</td>
<td>22%</td>
<td>30%</td>
<td>27%</td>
<td>11%</td>
<td>2%</td>
</tr>
<tr>
<td>2015</td>
<td>10%</td>
<td>20%</td>
<td>30%</td>
<td>27%</td>
<td>22%</td>
<td>11%</td>
<td>2%</td>
</tr>
</tbody>
</table>

### Number of Contracts

| Year | 440 | 447 | 431 | 395 |

Source: CMS

Medicare Access and CHIP Reauthorization Act of 2015 (MACRA)

Providers must choose either significant performance-based payments tied to fee-for-service or participate in alternative payment models.

### MPS and APMs

- **MPS (Merit-Based Incentive Payment System)**
  - 2016: 0.5%
  - 2017: 0.5%
  - 2018: 0.5%
  - 2019: 0.5%
  - 2020: 0%
  - 2021: 0%
  - 2022: 0%

- **APMs (Alternative Payment Models)**
  - 5%

The direct impact on physicians and the delivery system may ultimately be greater than that of the Affordable Care Act.

Source: Health Affairs, April 23, 2015
Growth of Accountable Care Organizations

ACO formation growing broadly across a variety of provider and payers, driven by a number of factors

Source: Leavitt Partners

Covered Lives Associated with Risk Contracts Grows Rapidly

Covered Lives Under Risk-Bearing Contracts (M lives)

Growth Drivers

Growth will tend to be faster in areas with:

- Higher density of medium and large hospitals
- Higher concentration of physician practices
- Higher per capita spend

1. Estimates based on data from Leavitt Partners
2. Projections from Stax market sizing project, Feb 2014
Source: CMS, Leavitt Partners, Stax Consulting
2020: The Shift to Value Will Blur the Lines Between Payers & Providers

### Covered Lives Under Risk-Bearing Contracts

<table>
<thead>
<tr>
<th>Year</th>
<th>Estimated</th>
<th>Projected</th>
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</thead>
<tbody>
<tr>
<td>2011</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>2012</td>
<td>14</td>
<td>34</td>
</tr>
<tr>
<td>2013</td>
<td>18</td>
<td>57</td>
</tr>
<tr>
<td>2014</td>
<td>24</td>
<td>80</td>
</tr>
<tr>
<td>2015</td>
<td>34</td>
<td>96</td>
</tr>
<tr>
<td>2016</td>
<td>57</td>
<td>110</td>
</tr>
<tr>
<td>2017</td>
<td>80</td>
<td>127</td>
</tr>
<tr>
<td>2018</td>
<td>96</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>110</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>127</td>
<td></td>
</tr>
</tbody>
</table>

*Covered Lives Increase by +32%*  
*Projected Lives Increase by +73%*

### Provider Risk Contracts

- 626 ACOs (5/14) covering 20m lives  
  - High % of Medicare / Medicaid lives  
- By 2020, ~40% of the insured population will be covered under risk contracts (vs. 7-10% today)  
  - Medicare & Medicaid will account for a high % of this  
  - Local market dynamics will be a key driver  
  - Local systems of health will emerge, led by strategic aggregators  
- 50% of IDNs have applied or are considering applying for insurance licenses

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**The Shifting Risk to Providers**

- Shift from competing on Volume to Value will not happen overnight – financial / actuarial / clinical / cultural infrastructure critical  
- Providers will likely need to navigate multiple types of payments over the next 5 years  
- Local market dynamics, degree of clinical integration, benefit plan design and patient population (i.e. commercial, Medicare) are all key factors

### Forms of payment transformation

- Fee for Service
- Pay for Performance
- Bundled / Episodic Payment
- Global Budgets / Shared Savings
- Partial / Global Capitation

### Provider Practice Models

- Virtual community networks
- IPAs / MSGs
- PHOs
- Payer / Provider Organizations
- Fully-integrated delivery systems

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1. Estimates based on data from Leavitt Partners  
2. Projections from Stax market sizing project, Feb 2014  
Source: CMS, Leavitt Partners, Stax Consulting
Critical Success Factors

The bridge from FFS to accountable care arrangements

Current FFS System

What are the underpinning building blocks?

Accountable Care

Accountable Care – Core Components

People Centered Foundation

Patient Centered Medical Home

High-Value Network

Population Health Data Management

ACO Leadership

Payer Partnerships

Foundational Philosophy: Triple Aim™

Measurement

Source: Premier, Inc.
Managing Your Accountable Care Contracts

1. Provide leadership, governance and the infrastructure needed to support our delivery system goals
2. Develop information technology that spans measurement analytics, risk prediction and automated care management
3. Monitor and manage service delivery and finance in new ways
4. Reform primary care payment to reflect expanded responsibilities
5. Develop high performing “care teams”
6. Match investments in healthcare technology with innovations in the patient care process

Primary Care Competencies in a Successful ACO

- Establish medical home systems - focus on “health”
- Optimize chronic, acute and preventative care
- Manage population segments to optimize health status
- Coordinate care across continuum
- Drive continuous improvement in outcomes of the ACO’s population
- Develop new delivery models to improve coordination of care for complex medical

Deliver people-centered primary care
Invest in and learn to use appropriate information technology to manage population health.

Acquire the technological infrastructure and establish a culture that uses this technology to promote population health.

Source: Leavitt Partners, 2013

Top Opportunity Identification - Framework for Review

Focus on selected components support data driven decisions and actions

<table>
<thead>
<tr>
<th>Area of focus</th>
<th>System/ Network Management</th>
<th>Clinic/ provider Management</th>
<th>Improve patient outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pop Health</td>
<td>Preventive Care, Care Gaps</td>
<td>&quot;Very high&quot; groups' risk</td>
<td>Disease prevalence &amp; PMPM</td>
</tr>
<tr>
<td>Manage Medical Cost</td>
<td>PMPM cost, Top cost –DX, PX, Imaging, Lab</td>
<td>Conversion analyzer, prescribing patterns</td>
<td>No office visit after hosp, ER with non-urgent DX</td>
</tr>
<tr>
<td>Practice Management</td>
<td>Clinic efficiency index, Out of network</td>
<td>Efficiency index - Imaging &amp; ER/1000</td>
<td>Amb care sensitive admits</td>
</tr>
</tbody>
</table>
Analytics to Drive Results

Near Term: Cost Reduction Opportunities

- Reduce out-of-network utilization
- Rationalize pricing variation
- Encourage value-conscious care

Longer Term: Clinical Quality Improvement

- Stratify population
- Tailor interventions
- Close gaps in care

ACOs need near-term cost reduction initiatives that complement longer-term quality improvement and population health strategies
Analytics to Drive Results

Near Term: Cost Reduction Opportunities
- Reduce out-of-network utilization
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Longer Term: Clinical Quality Improvement
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- Tailor interventions
- Close gaps in care

Focus on Out-of-Network Utilization

66.7% of office visits with specialists were provided outside of the assigned ACO. Leakage of outpatient specialty care was greater for higher-cost beneficiaries and substantial even among specialty-oriented ACOs (54.6% for lowest quartile of primary care orientation).

Source: “Outpatient Care Patterns and Organizational Accountability in Medicare.” McWilliams et al. JAMA. June 2014
How Can I Evaluate Network Affiliation?
Clinically Integrated Networks

![Graph showing network affiliation comparison](image)

**Outcomes**
- **Poorly Integrated**
  - Out-of-network utilization by poorly managed CINs
  - >60%

- **Well Integrated**
  - Out-of-network utilization by well-managed, Verisk Health CINs
  - <40%

*Verisk Health data on file

**Reduce Out-of-Network Utilization: Example**

- **Outpatient specialist procedures** are a key driver of OON utilization
- We observe substantial variation in OON spend for these categories across our clients

**VH Multi-Client Experience: Out of Network Utilization**
Percent of Allowed Cost for Outpatient Events

![Graph showing out-of-network utilization](image)

Source: Verisk Health Analysis
Reduce Out-of-Network Utilization: Approach

- Prioritize specific specialties and procedures with disproportionate OON spend
- Compare cost per event by provider
- Educate PCPs with high amounts of OON spend on opportunity for improvement

Out-of-Network by Specialty

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Out-of-Network Dollars</th>
<th>Out-of-Network Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiology</td>
<td>26%</td>
<td>26%</td>
</tr>
<tr>
<td>Cardiology</td>
<td>24%</td>
<td>24%</td>
</tr>
<tr>
<td>Dermatology</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Orthopedic</td>
<td>37%</td>
<td>36%</td>
</tr>
<tr>
<td>ENT</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>28%</td>
<td>28%</td>
</tr>
</tbody>
</table>

Source: Verisk Health Analysis

Rationalize Pricing Variation: Example

- CT Scan spend is concentrated at two facilities: Hospital A and Hospital B
- The cost of a CT Scan at Hospital B is 2x Hospital A and the ACO average
- $350K potential savings if Hospital B’s CT Scan prices were to be brought in line with the average

CT Scan Costs: Top 10 Providers

<table>
<thead>
<tr>
<th>Provider</th>
<th>Avg. CT Scan Cost Allowed $ / Service</th>
<th>% of Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital A</td>
<td>$1,378</td>
<td>19.4%</td>
</tr>
<tr>
<td>Hospital B</td>
<td>$2,801</td>
<td>12.5%</td>
</tr>
<tr>
<td>Hospital C</td>
<td>$2,228</td>
<td>4.8%</td>
</tr>
<tr>
<td>Hospital D</td>
<td>$1,450</td>
<td>3.1%</td>
</tr>
<tr>
<td>Hospital E</td>
<td>$844</td>
<td>3.1%</td>
</tr>
<tr>
<td>Hospital F</td>
<td>$331</td>
<td>2.4%</td>
</tr>
<tr>
<td>Hospital G</td>
<td>$2,207</td>
<td>2.2%</td>
</tr>
<tr>
<td>Hospital H</td>
<td>$1,481</td>
<td>2.1%</td>
</tr>
<tr>
<td>Hospital I</td>
<td>$1,264</td>
<td>1.8%</td>
</tr>
<tr>
<td>Hospital J</td>
<td>$1,783</td>
<td>1.6%</td>
</tr>
</tbody>
</table>
Rationalize Pricing Variation: Approach

• Prioritize top procedures for cost reduction:
  - Total cost
  - High pricing variability
• Largest opportunities often in routine procedures (i.e., lab tests)
• Pricing variability highlights strategic tension in transition from FFS to ACO models

Disguised Client Example: Map of High Cost, High Volume Providers
Avg. Facility $ / Service vs. Benchmark, and % of Procedure Volume

<table>
<thead>
<tr>
<th>Procedure 1</th>
<th>Procedure 2</th>
<th>Procedure 3</th>
<th>Procedure 4</th>
<th>Procedure 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital A</td>
<td>1.1x</td>
<td>8.0x</td>
<td>4.2x</td>
<td>1.6x</td>
</tr>
<tr>
<td></td>
<td>4%</td>
<td>9%</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>Hospital B</td>
<td>1.7x</td>
<td>4.0x</td>
<td>2.6x</td>
<td>2.6x</td>
</tr>
<tr>
<td></td>
<td>10%</td>
<td>4%</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>Hospital C</td>
<td>2.9x</td>
<td>13.0x</td>
<td>1.3x</td>
<td>1.9x</td>
</tr>
<tr>
<td></td>
<td>7%</td>
<td>4%</td>
<td>3%</td>
<td>8%</td>
</tr>
<tr>
<td>Hospital D</td>
<td>2.5x</td>
<td>11.0x</td>
<td>1.3x</td>
<td>1.3x</td>
</tr>
<tr>
<td></td>
<td>4%</td>
<td>11%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Hospital E</td>
<td>2.8x</td>
<td>13.0x</td>
<td>1.9x</td>
<td>3.1x</td>
</tr>
<tr>
<td></td>
<td>11%</td>
<td>12%</td>
<td>11%</td>
<td>9%</td>
</tr>
<tr>
<td>Hospital F</td>
<td>2.5x</td>
<td>3.0x</td>
<td>2.5x</td>
<td>3.5x</td>
</tr>
<tr>
<td></td>
<td>10%</td>
<td>3%</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>Hospital G</td>
<td>2.1x</td>
<td>8.9x</td>
<td>7.1x</td>
<td>1.2x</td>
</tr>
<tr>
<td></td>
<td>11%</td>
<td>5%</td>
<td>5%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Key:
- Avg. $ / Service is over 5X > Benchmark
- Avg. $ / Service is 1-2X > Benchmark
- Avg. $ / Service is 2-5X > Benchmark
- Not in Top 10 by Volume in Market

Emerging Theme: Encouraging Value-Conscious Care

Opportunity

- Substantial variation in practice patterns
- Growing need to educate physicians about cost implications of treatment choices, e.g.,
  - Rx Prescribing
  - DME Purchasing
- Analytics reveal actionable physician-level opportunities

Case Example: Specialty Pharmacy

20x cost difference between Avastin and Lucentis... yet a clinical trial demonstrated similar clinical benefit... a Medical Group identified specialists to target for academic detailing campaign

Avastin
Lucentis

$2,000
$50

In-Network Lucentis Spend

$672K
Analytics to Drive Results

Near Term: Cost Reduction Opportunities

- Reduce out-of-network utilization
- Address pricing variation
- Encourage value-conscious care

Longer Term: Clinical Quality Improvement

- Stratify population
- Tailor care management programs
- Close gaps in care

DxCG: Predictive Risk Perspective

Relative Risk Scores Derived from Hierarchical Condition Category (HCC) Predictive Models

Age: 50  
Gender: Male

Prospective Risk Score: 4.90

Age/Gender

- 45 - 54 Male: 0.50

Condition Categories

- Type I Diabetes: 0.75
- Hypertension: 0.50
- Congestive Heart Failure: 2.13
- Depression: 0.92
- Interaction: 2.13
- Type I Diabetes & CHF: 0.60

John contributes additional risk to the group’s illness burden and is predicted to spend 4.9 times the plan average.

Individual average spending for medical services factors into aggregate medical costs for a defined fiscal period.

Provider contracts are based on the relative risk of their affiliated members.
Population Health Management Framework:
Stratify your population to develop programs and identify patients

ACO Population

High Predicated Costs, Utilization

High Disease Burden (RRS)

High Care Gaps (CGI)

Goal
Manage high costs, reduce admissions & help members navigate system

Intervention
Case Management

Disease Management

High Care Gaps (CGI)

Monitor compliance rates. Enable healthy behaviors.

Low Care Gaps (CGI)

Low Disease Burden (RRS)

Low Care Gaps (CGI)

Manage risk factors. Support preventive care

Wellness Management

Moderate Costs ($) High Prevalence Conditions

Low Costs ($) Low Disease Burden (RRS) RRS= Relative Risk Score

Stratify Population: Example
Identify “Emerging High Risk” Patients

ACO Population

High Costs ($) 3% $60K 13.0 4.0

High Care Gaps (CGI) 2% $11K 4.9 7.2

Low Care Gaps (CGI) 5% $9K 4.3 2.1

Low Costs ($) 90% $1.2K 0.6 1.3

RRS= Relative Risk Score

Risk (RRS) Cost (PMPY) Quality (CGI)

% of Population

Cohort A should be managed to improve outcomes and reduce long term costs

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Data. Analytics. Answers.
### Tailor care management programs
Clinical Profile: Emerging High Risk Members

#### Cohort A: Key Conditions

<table>
<thead>
<tr>
<th>Category</th>
<th>Disease</th>
<th>Prevalence Members per 1,000</th>
<th>Cohort A vs. ACO % Diff</th>
<th>Cohort A RRS</th>
<th>Cohort A CGI</th>
<th>Cohort A PMPY $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Chronic Conditions</td>
<td>Diabetes</td>
<td>61 81 170</td>
<td>110%</td>
<td>5.3 6.5</td>
<td>$9,987</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CAD</td>
<td>19 27 90</td>
<td>233%</td>
<td>5.7 5.5</td>
<td>$9,602</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COPD</td>
<td>14 40</td>
<td>186%</td>
<td>6.1 6.5</td>
<td>$11,493</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Asthma</td>
<td>18 33 39</td>
<td>18%</td>
<td>5.0 5.8</td>
<td>$7,404</td>
<td></td>
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<tr>
<td></td>
<td>CHF</td>
<td>3 8 23</td>
<td>188%</td>
<td>7.3 6.9</td>
<td>$12,072</td>
<td></td>
</tr>
</tbody>
</table>

- Cohort A is a patient segment that bears substantial burden of chronic disease
  - Up to ~2x higher prevalence vs. the ACO average
- High Care Gap Index (CGI) scores indicate intervention opportunity to improve quality

**The Road Forward**
Top Opportunity Reporting

- Uncover opportunities based on data
- Focus organization efforts
- Build on existing infrastructure — in new ways
  - QI process
  - Committee structure
  - Support care process redesign
- Understand and manage at-risk population
- Achieve Triple Aim Goals
- Success with at-risk contracts

Source: IHI

Better Health
For the Population
Better Care
For the Individuals
Lower Cost
Through Improvement

How Will We Evaluate These Initiatives?

Environmental Context
- National and State Context: Policies, investments and activities

Local Readiness
- ACO structure and capabilities: Governance, leadership and health IT infrastructure

Implementation Activities
- Implementation of health IT, health information exchange across providers
- Data sharing by providers and payers
- Development of public reporting infrastructure

Intermediate Outcomes
- Degree of health IT capacity achieved
- Improvement in care processes
- Degree of integration of care achieved

Impact: The Triple Aim
- Improved access and experience
- Improved health and functioning
- Reduced costs

Continuing the Conversation

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