Melinda S. Hancock is Partner, Dixon Hughes Goodman and Chair Elect of HFMA for the 2014-2015 Term.

Having joined Dixon Hughes Goodman in the last year, Melinda has specific responsibility for developing DHG Healthcare’s next generation financial modeling products and services related to the transition from fee for service to non Fee For Service payment models. Prior to joining DHG, Melinda was the Senior Vice President and Chief Financial Officer of Bon Secours Virginia Health System.
Edward Stall

Edward combines over 20 years of health care consulting experience with 7 years of corporate experience to provide realistic business thinking for our healthcare clients. Edward has acquired significant experience in the areas of strategic business planning, health system planning, growth strategies, service line strategies, affiliations and relationships, physician alignment, and ambulatory strategies. His business experience, coupled with his healthcare focus and 20+ years of hands on planning experience ensures practical and manageable strategic direction for healthcare providers of all sizes. Edward has specific experience in new, replacement, and consolidation planning for acute care hospitals across the country.
Critical Intelligence for the Risk Capable Organization

Edward Stall // Principal, DHG Healthcare
Melinda Hancock // Partner, DHG Healthcare
David Hatch // Director of Managed Care, Providence Hospitals

connecting the transformational dialogue
Learning Objectives

At the end of this session each participant will understand the following 5 key learning objectives:

• Understand the market drivers that are accelerating the need for new forms of Enterprise Intelligence
• Learn how new revenue models are accelerating intelligence needs
• Learn about the emerging analytics and intelligence capabilities required for risk capability
• Study *Kicking the Tires* - an analytics case study
• Understand the top things that all healthcare organizations should consider tomorrow to advance enterprise intelligence through the risk capability continuum
Agenda

• Intelligence for What? A Framework of Coming Risk Models
• Enterprise Intelligence for the Risk Capable Organization
• Kicking the Tires – A Case Study
• “Intelligent” Things to Do Tomorrow
Intelligence For What?
A Framework For Coming Risk Models
Tipping Point In Sight?

01 When will our market tip?

02 What percentage of our net revenues will be tied to performance metrics?

FFS

INCENTIVE BASED PAYMENT
CMS Accelerates the Tipping Point for Everyone

“...HHS goal of **30 percent** traditional FFS Medicare payment through alternative payment models by the end of 2016... **50 percent** by the end of 2018”

*HHS Press Office 1-26-15*

- **85% of payment tied to quality and value metrics** (ex. HVBB, HRR)
Another Way of Looking at This

<table>
<thead>
<tr>
<th>Description</th>
<th>Category 1: Fee for Service—No Link to Quality</th>
<th>Category 2: Fee for Service—Link to Quality</th>
<th>Category 3: Alternative Payment Models Built on Fee-for-Service Architecture</th>
<th>Category 4: Population-Based Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Payments are based on</strong></td>
<td>Payments are based on volume of services and not linked to quality or efficiency</td>
<td>At least a portion of payments vary based on the quality or efficiency of health care delivery</td>
<td>Some payment is linked to the effective management of a population or an episode of care</td>
<td>Payment is not directly triggered by service delivery so volume is not linked to payment</td>
</tr>
<tr>
<td><strong>Limited in Medicare fee-for-service</strong></td>
<td>Hospital value-based purchasing</td>
<td>Payments still triggered by delivery of services, but opportunities for shared savings or 2-sided risk</td>
<td>Clinicians and organizations are paid and responsible for the care of a beneficiary for a long period (e.g., &gt;1 year)</td>
<td></td>
</tr>
<tr>
<td><strong>Majority of Medicare payments now are linked to quality</strong></td>
<td>Physician Value-Based Modifier</td>
<td>Eligible Pioneer accountable care organizations in years 3-5</td>
<td>Some Medicare Advantage plan payments to clinicians and organizations</td>
<td></td>
</tr>
<tr>
<td><strong>Examples</strong></td>
<td>Readmissions/Hospital Acquired Condition Reduction Program</td>
<td>Accountable care organizations</td>
<td>Some Medicare-Medicaid (duals) plan payments to clinicians and organizations</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Medical homes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bundled payments</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Rahul Rajkumar, MD, JD; Patrick H. Conway, MD, MSc; Marilyn Tavenner, RN, MHA
The Business Intelligence Journey to Risk Capable

- enterprise intelligence
- revenue transformation
- clinical enterprise maturity

- FFS Reimbursement Reductions
- Penalty Avoidance and Pay for Performance
- Bundled Payment (BPCI)
- Capitation, Shared Savings (MSSP)
Fee For Service Payment Reductions

Medicare Fee-for-Service Payment Cuts

*Reductions to Annual Payment Rate Increases*¹

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>($4B)</td>
<td>($14B)</td>
<td>($21B)</td>
<td>($25B)</td>
<td>($32B)</td>
<td>($42B)</td>
<td>($53B)</td>
<td>($64B)</td>
<td>($75B)</td>
<td>($86B)</td>
</tr>
</tbody>
</table>

$415B in total fee-for-service cuts, 2013-2022

- **$260B**
  Hospital payment rate cuts, 2013-2022

- **$56B**
  Reduced Medicare and Medicaid DSH² payments, 2013-2022

¹ Includes hospital, skilled nursing facility, hospice, and home health services; excludes physician services.
² Disproportionate Share Hospital.

Source: Centers for Medicare and Medicaid
The Business Intelligence Journey to Risk Capable

- FFS Reimbursement Reductions
- Penalty Avoidance and Pay for Performance
- Bundled Payment (BPCI)
- Capitation, Shared Savings (MSSP)
## Penalties and Pay for Performance

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Based Purchasing</td>
<td>1.0%</td>
<td>1.25%</td>
<td>1.5%</td>
<td>1.75%</td>
<td>2.0%</td>
<td>2.0%</td>
<td>2.0%</td>
<td>2.0%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Readmission Reduction Program</td>
<td>1.0%</td>
<td>2.0%</td>
<td>3.0%</td>
<td>3.0%</td>
<td>3.0%</td>
<td>3.0%</td>
<td>3.0%</td>
<td>3.0%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Hospital Acquired Conditions</td>
<td>1.0%</td>
<td>1.0%</td>
<td>1.0%</td>
<td>1.0%</td>
<td>1.0%</td>
<td>1.0%</td>
<td>1.0%</td>
<td>1.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2.0%</td>
<td>3.25%</td>
<td>5.5%</td>
<td>5.75%</td>
<td>6.0%</td>
<td>6.0%</td>
<td>6.0%</td>
<td>6.0%</td>
<td>6.0%</td>
</tr>
<tr>
<td>Market Basket Reductions</td>
<td>0.1%</td>
<td>0.3%</td>
<td>0.2%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multifactor Productivity Adj *</td>
<td>0.7%</td>
<td>0.5%</td>
<td>0.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Documentation &amp; Coding Adj (DCA) **</td>
<td>1.0%</td>
<td>0.8%</td>
<td>0.8%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sequestration</td>
<td>1.8%</td>
<td>1.6%</td>
<td>1.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Impact</strong></td>
<td>2.0%</td>
<td>2.0%</td>
<td>2.0%</td>
<td>?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

% = % of Medicare inpatient operating payments

* The Multifactor Productivity Adjustments is an estimate generated by the CMS Office of the Actuary

**DCA, also known as the behavioral offset.
The Business Intelligence Journey to Risk Capable

- FFS Reimbursement Reductions
- Penalty Avoidance and Pay for Performance
- Bundled Payment (BPCI)
- Capitation, Shared Savings (MSSP)

Key Concepts:
- Enterprise Intelligence
- Revenue Transformation
- Clinical Enterprise Maturity
## Risk Capability Assessment

**What’s your ability to take on a risk-based contract?**

**Level of Risk Capability**

<table>
<thead>
<tr>
<th>Component</th>
<th>Risk Score (1 to 5)</th>
<th>Opportunities for Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprise Intelligence</td>
<td>2.00</td>
<td>Connect practice management systems and EMR workflows for both inpatient and outpatient providers to measure performance across evidence-based guidelines (i.e. improve interoperability of inpatient and ambulatory systems)</td>
</tr>
<tr>
<td>Clinical Enterprise Maturity</td>
<td>3.00</td>
<td>Develop expertise on how to operationalize Clinically Integrated Network to manage defined populations</td>
</tr>
<tr>
<td>Revenue Transformation</td>
<td>2.00</td>
<td>Participate in internal contracting opportunities to enhance experience and demonstrate improvement (internal cost savings, employee health plan shared savings, etc.)</td>
</tr>
<tr>
<td>Market Snapshot</td>
<td>2.84</td>
<td>Approach Aetna and Cigna payers with discussions on shared savings and pay-for-performance contract.</td>
</tr>
</tbody>
</table>
Experimenting with Bundled Payments

6,635 Entities
### Bundled Payments

There are 4 models to choose from and each one has its unique attributes...

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>MODEL 1</th>
<th>MODEL 2</th>
<th>MODEL 3</th>
<th>MODEL 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCOPE OF EPISODES</td>
<td>Entire Hospital</td>
<td>Up to 48 Episodes</td>
<td>Up to 48 Episodes</td>
<td>Up to 48 Episodes</td>
</tr>
<tr>
<td>SERVICES INCLUDED IN EPISODES</td>
<td>All Part A services paid as part of the MSDRG payment</td>
<td>All non-hospice Part A and B services during the initial inpatient stay, post-acute period and readmissions</td>
<td>All non-hospice Part A and B services during the post-acute period and readmissions</td>
<td>All non-hospice Part A and B services (including the hospital and physician) during initial inpatient stay and readmissions</td>
</tr>
<tr>
<td>PAYMENT</td>
<td>Retrospective</td>
<td>Retrospective</td>
<td>Retrospective</td>
<td>Prospective</td>
</tr>
<tr>
<td>BPCI DISCOUNT</td>
<td>0.5%, and increasing over time</td>
<td>2.3%</td>
<td>3%</td>
<td>3-3.25%</td>
</tr>
<tr>
<td>NUMBER OF ADMITTED BPCI HEALTHCARE ORGANIZATIONS AS OF 7/31/14</td>
<td>19</td>
<td>2,055</td>
<td>4,534</td>
<td>17</td>
</tr>
</tbody>
</table>

Note: Model 1 is on a different implementation timeline than Models 2, 3 and 4.
• Medicare Gain Sharing Opportunities

2009-2012

Historical Cost Per Episode $12,500

Update factor For illustration: 3% inflation/yr Discount = 3%

Target Price $13,647

Actual FFS Cost during Performance Period $13,400

Settlement (Per Case) $247

BPLN Episode Definitions Risk Adjustment

2015

Physicians (35%) $86

Environment of Care - Hospital (40%) $99

Environment of Care - Post-acute (25%) $62

Quality Metrics

Quality Metrics

Quality Metrics

Fundamentals of the Program
Outpatient Bundling/OCM

• Summary of additional Bundled Models

<table>
<thead>
<tr>
<th>Comprehensive APCs</th>
<th>Oncology Care Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>❑ 25 Comprehensive APCs</td>
<td>❑ Covers outpatient chemotherapy care for up to 6 months</td>
</tr>
<tr>
<td>❑ Effective 1/1/15</td>
<td>❑ For Oncology physician practices</td>
</tr>
<tr>
<td>❑ Mandatory for all OPPS hospitals</td>
<td>❑ Several participation requirements</td>
</tr>
<tr>
<td>❑ Up to 6 months of care</td>
<td>❑ Open to other payers to participate</td>
</tr>
<tr>
<td>❑ Key to success will be management of internal cost structure</td>
<td>❑ Includes Part A, B and D</td>
</tr>
<tr>
<td></td>
<td>❑ Performance Based Measures and Quality Monitoring Measures</td>
</tr>
</tbody>
</table>
The Business Intelligence Journey to Risk Capable

- FFS Reimbursement Reductions
- Penalty Avoidance and Pay for Performance
- Bundled Payment (BPCI)
- Capitation, Shared Savings (MSSP)

Key Phases:
- Enterprise Intelligence
- Revenue Transformation
- Clinical Enterprise Maturity

Risk Capable
Risk Capable... ACO Adoption

Number of ACOs

- Non-CMS ACOs
- Medicare ACOs

<table>
<thead>
<tr>
<th>Jan 2013</th>
<th>July 2013</th>
<th>Jan 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>124</td>
<td>135</td>
<td>154</td>
</tr>
</tbody>
</table>

Percent of Medicare beneficiaries covered by ACOs

<table>
<thead>
<tr>
<th>Jan 2013</th>
<th>July 2013</th>
<th>Jan 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>5%</td>
<td>8%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Source: Oliver Wyman, April 2014
Fundamentals of the MSSP Program

• Explanation Of How MSSP Works And Are Structured.

<table>
<thead>
<tr>
<th>DESIGN ELEMENT</th>
<th>ONE-SIDED MODEL</th>
<th>TWO-SIDED MODEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharing Rate</td>
<td>Up to 50% based on quality performance</td>
<td>Up to 60% based on quality performance</td>
</tr>
<tr>
<td>Minimum Savings Rate (MSR)</td>
<td>Varies by number of assigned beneficiaries</td>
<td>2%</td>
</tr>
<tr>
<td>Shared Savings Method</td>
<td>First dollar sharing once MSR is met or exceeded</td>
<td>First dollar sharing once MSR is met or exceeded</td>
</tr>
<tr>
<td>Maximum Sharing Cap</td>
<td>Total shared savings payments cannot exceed 10% of benchmark</td>
<td>Total shared savings payments cannot exceed 15% of benchmark</td>
</tr>
<tr>
<td>Minimum Loss Rate</td>
<td>None</td>
<td>ACO repays share of all losses if expenditures are more than 2% higher than benchmark</td>
</tr>
<tr>
<td>Shared Loss Rate</td>
<td>None</td>
<td>One minus final sharing rate applied once minimum loss rate is met; loss rate is capped at 60%</td>
</tr>
<tr>
<td>Maximum Loss Cap</td>
<td>None</td>
<td>Losses capped at 5%, 7.5%, 10% in years 1, 2, 3, respectively</td>
</tr>
</tbody>
</table>

**SHARED SAVINGS PAYMENT CYCLE**

1. ASSIGNMENT
   Patients assigned to ACO based on terms of contract

2. BILLING
   Providers bill normally, receive standard fee-for-service payments

3. COMPARISON
   Total cost of care for assigned population compared to risk-adjusted target expenditures

4. BONUS
   If total expenses less than target, portion of savings returned to ACO

5. DISTRIBUTION
   ACO responsible for dividing bonus payments among stakeholders

Source: Health Care Advisory Board, 2012
Aggregate & Patient Level Data From CMS

**Aggregate-Level Data**

**Initial Data Provision**
- Provided to all ACOs at start of agreement period
- Based on historical beneficiaries used to calculate cost benchmark

**Quarterly Data Reports**
- Provided to all ACOs on quarterly basis and in conjunction with annual quality/financial reports
- Based on most recent 12 months of data for prospectively assigned beneficiaries

**Includes (Where Available)**
- Financial performance
- Quality performance scores
- Aggregated metrics on assigned population
- Utilization data from historical beneficiaries (at start of agreement period)

**Benchmark Data**
- Provided at beginning of agreement period and end of performance year as well as each quarterly aggregate data report
- Information on historically assigned beneficiaries
- HIPAA restrictions apply

**Beneficiary Claims Data**
- Provided upon formal request from ACO
- Available monthly
- For use only in coordinating and/or improving care
- Must publicize to patients how data will be used

**Individual-Level Data**

- Beneficiary names
- Date of birth
- Health insurance claim number

Source: Health Care Advisory Board, 2012
Enterprise Intelligence For The Risk Capable Organization
Big Data – Big Deal?

$600
to buy a disk drive that can store all of the world’s music

6.8 Billion
Cell phone subscriptions in 2013 including more subscriptions than people in the US (327M vs 318M)

30 Billion
pieces of content shared on Facebook every month

60%
potential increase in retailers margin possible with big data

40%
projected growth in global data generated per year

vs. 5%
growth in global IT spending

$300 billion
Annual value to US healthcare of “big data” – 2x total annual healthcare spend of Spain

1.5 million
MORE data savvy managers needed to take advantage of big data in the United States

Source: McKinsey Global Institute Analysis
Estimated Long-Term Value of “Big Data” Levers

$330 Billion Spending Reduction with Big Data Applications

- New Business Models
  - Outcomes and Cost Analytics
  - Clinical Decisions
  - Setting Management
  - Readmission Management
  - Transparency of Medical Data
  - Remote Monitoring
  - Advanced Profile Analytics

- Public Health
  - Fraud Detection
  - Outcomes Based Pricing

- Accounting and Pricing
  - Predictive Modeling
  - Big Data Clinical Trials
  - Personalized Medicine (Genome)
  - Analyzed Disease Patterns

- Research and Development
  - Transparency of Medical Data

- Clinical Operations
  - Outcomes and Cost Analytics
  - Clinical Decisions
  - Setting Management
  - Readmission Management
  - Transparency of Medical Data
  - Remote Monitoring
  - Advanced Profile Analytics

Big Data – Not the Usual Suspects…

Social Networks, Social Media, and Disease Surveillance

Traditional flu surveillance by the Centers for Disease Control and Prevention (CDC) relies on outpatient reporting and virological test results supplied by laboratories nationwide. That system confirms outbreaks within about 2 weeks after they begin. Can social media give us a heads up?

2 in 3 U.S. adults use social media.

We search for health information online.

We update or status to reflect our health.

We tweet our symptoms.

Some organizations are putting all that data to good use.

Google uses people’s online searches to track flu trends.

"As you might expect, there are more flu-related searches during flu season, more allergy-related searches during allergy season, and more sunburn-related searches during the summer. But can search query trends provide the basis for an accurate, reliable model of real-world phenomena?"

http://www.google.org/flutrends/about/how.html

Twitter is playing an emerging role in the early detection of epidemics.

Scientists have found that tweet streams closely track reported cases of influenza-like illnesses, conditions.

In some instances, Twitter content has predicted flu outbreaks 1-2 weeks ahead of the CDC’s surveillance average.

#thingssickpeoplestwitter

Head is pounding. Heart is racing. Hands are sweaty. Can’t sleep. I ain’t in Love. #Imsick

Still on the couch. I’ve been sleeping literally all day. 2013 is kicking my tail so far. #flu

Can’t breathe through my nose. Sore throat. Muscle ache, and chills. I want some soup, #BeingSick
Enterprise Intelligence Differentiates Top Performers

Source: Analytics: The New Path to Value, a joint MIT Sloan Management Review and IBM Institute of Business Value study. Copyright @ Massachusetts Institute of Technology 2010. Sample Size Healthcare n=116
Capability Progression

Where is your organization?

Aspirational (35%)
- New or limited users of analytics
- Focused on analytics at point-of-need
- Turn to analytics for ways to cut costs

Experienced (48%)
- Established users of analytics
- Seeking to grow revenue with focus on cost efficiencies
- Seeking to expand ability share information and insights

Transformed (16%)
- Analytic use is cultural norm
- Highest levels of analytics prowess and experience
- Seeking targeted revenue growth
- Feel the most pressure to do more with analytics
- Required in new delivery models

Think and Act “Outside the Box”

“Enterprise Intelligence”

- Population Health Mgmt.
- Claims Data Mining
- Medicaid Alternative Payment
- Strategic Growth Assessment
- Gain Sharing/Funds Flow
- Post Acute Provider Performance
- CMS Alternative Payment Mgmt.
- CMS Alternative Payment Modeling
- CMS Public/Private Datasets
- CMS Penalties/Performance

Traditional Capabilities

- Connection and Integration
- Health Exchange Participation
- Cost Efficiency/Mgmt.
- Clinical Processes/Paths
- MD Practice Mgmt.
- Quality Measurement/Reporting
- Electronic Health Records
- Departmental Analytics
- Patient Information and Mgmt.
- Financial Information and Mgmt.
- Internal IT
Now, NOT Later

FFS Reimbursement Reductions

Every Provider
- Need for Cost Variance Tools and Growth Strategies

Penalty Avoidance and Pay for Performance

Every Provider
- Penalty Minimization Tools, VBP Metrics

Bundled Payment (BPCI)

6000+ BPCI Applicants
- Tennessee Medicaid Bundling
- Post Acute Planning

Capitation, Shared Savings (MSSP)

Alabama Hospitals
- Reacting to Capitated Medicaid
- Preparing to Accept PMPM Payment
Two primary capabilities necessary for providers to manage populations

Optimizing The Health of Large Populations

Managing Fixed Price Contracts

Analytic Solutions Accelerate the Journey

- Market Intelligence to Accelerate Growth Strategies
- Cost Variation and Clinical Outcomes Tools
More than Market Share, “Yield”

Non System Admits by Zip Code

- 4,001 to 5,000
- 3,001 to 4,000
- 2,001 to 3,000
- 1,001 to 2,000
- 501 to 1,000
- 251 to 500
- 1 to 250

Acute Care Hospitals

Copyright © and ™ 1999–2006 Microsoft Corporation and/or its suppliers. All rights reserved. Frets are 1985–2005 inCij/Shield Software Corporation and/or its suppliers. Other names and technologies are ® 2005 Telo Atlas North America, Inc. All rights reserved: Telos, Amege and Telos Atlas North America are trademarks of Telos New York, Inc.
Service Line Optimization

Opportunity - Contribution Margin x Non System Cases

Development Opportunities

Build on Strength

Opportunity

$12,000,000
$10,000,000
$8,000,000
$6,000,000
$4,000,000
$2,000,000
$0

5%
10%
15%
20%
25%
30%
35%

XYZ Hospital Market Share = Strength
Physician Enterprise Intelligence

2014 Population by Zip Code

- **60,001+**
- **40,001 to 60,000**
- **20,001 to 40,000**
- **10,001 to 20,000**
- **1 to 10,000**

▲ Acute Care Hospital

**Dot colors represent employed, splitting, non aligned**
A New Way to View Variability

StdDev of Direct Var Cost

Std Dev. of Direct Cost Per Case vs. Direct Variable Cost

DHG healthcare THE NATIONAL HEALTHCARE PRACTICE OF DIXON HUGHES GOODMAN LLP
## Variance = Top 10 Opportunities to Reduce Costs

<table>
<thead>
<tr>
<th>MS-DRG</th>
<th>DESCRIPTION</th>
<th>SERVICE LINE</th>
<th>OPPORTUNITY</th>
<th>VARIABILITY</th>
<th>VOLUME</th>
</tr>
</thead>
<tbody>
<tr>
<td>871</td>
<td>SEPTICEMIA OR SEVERE SEPSIS W/</td>
<td>General Medicine</td>
<td>$1,143,999</td>
<td>72%</td>
<td>336</td>
</tr>
<tr>
<td>470</td>
<td>MAJOR JOINT REPLACEMENT OR REA</td>
<td>Orthopedics</td>
<td>$977,896</td>
<td>24%</td>
<td>475</td>
</tr>
<tr>
<td>291</td>
<td>HEART FAILURE &amp; SHOCK W MCC</td>
<td>Cardiac Services</td>
<td>$835,569</td>
<td>71%</td>
<td>328</td>
</tr>
<tr>
<td>853</td>
<td>INFECTIOUS &amp; PARASITIC DISEASE</td>
<td>General Surgery</td>
<td>$684,558</td>
<td>71%</td>
<td>66</td>
</tr>
<tr>
<td>193</td>
<td>SIMPLE PNEUMONIA &amp; PLEURISY W</td>
<td>General Medicine</td>
<td>$536,010</td>
<td>62%</td>
<td>230</td>
</tr>
<tr>
<td>177</td>
<td>RESPIRATORY INFECTIONS &amp; INFLA</td>
<td>General Medicine</td>
<td>$494,361</td>
<td>69%</td>
<td>126</td>
</tr>
<tr>
<td>885</td>
<td>PSYCHOSES</td>
<td>General Medicine</td>
<td>$492,390</td>
<td>68%</td>
<td>139</td>
</tr>
<tr>
<td>238</td>
<td>MAJOR CARDIOVASC PROCEDURES W/</td>
<td>Vascular Services</td>
<td>$479,513</td>
<td>68%</td>
<td>62</td>
</tr>
<tr>
<td>190</td>
<td>CHRONIC OBSTRUCTIVE PULMONARY</td>
<td>General Medicine</td>
<td>$474,865</td>
<td>65%</td>
<td>238</td>
</tr>
<tr>
<td>917</td>
<td>POISONING &amp; TOXIC EFFECTS OF D</td>
<td>General Medicine</td>
<td>$417,842</td>
<td>112%</td>
<td>83</td>
</tr>
</tbody>
</table>
Analytic Solutions Accelerate the Journey

- FFS Reimbursement Reductions
- Penalty Avoidance and Pay for Performance

- Market Intelligence to Accelerate Growth Strategies
- Cost Variation and Clinical Outcomes Tools

- Penalty Avoidance/Management

- Maximization of Value Based Opportunities
Maximizing Reimbursement

“Under payment models that reward efficiency and high-quality care, if a hospital or health system is losing money due to inadequate clinical performance, it cannot afford to wait one or more months to find out the problem. Healthcare leaders should understand how their organizations are performing today so they can take corrective action before revenue loss becomes a hemorrhage. “ –John Glaser, CEO Siemens

-May 2014 HFM Magazine
Analytic Solutions Accelerate the Journey

- Market Intelligence to Accelerate Growth Strategies
- Cost Variation and Clinical Outcomes Tools
  - Penalty Avoidance/Management
  - Maximization of Value Based Opportunities
- Delivery Model “Modeling”
- Delivery Model “Management”
- Post Acute Channel Selection/Management
CMS BPCI Data Detail...

- Baseline Target Price (1 – CMS released last week)
- Baseline Historic Claims (19 – CMS states by “end of month”)
- With and without precedence (2 versions)
Analytic Solutions Accelerate the Journey

- FFS Reimbursement Reductions
- Penalty Avoidance and Pay for Performance
- Bundled Payment (BPCI)
- Capitation, Shared Savings (MSSP)

• Market Intelligence to Accelerate Growth Strategies
• Cost Variation and Clinical Outcomes Tools
  • Penalty Avoidance/Management
  • Maximization of Value Based Opportunities
  • Delivery Model “Modeling”
  • Delivery Model “Management”
  • Post Acute Channel Selection/Management

• Custom Mining of Big Data (when necessary)
• Population Health/Care Management
### 2013 Summary

<table>
<thead>
<tr>
<th>Region</th>
<th>RCO Population</th>
<th>% Total</th>
<th>2013 Amount Paid</th>
<th>Amount Paid Per Enrollee</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>134,487</td>
<td>17.7%</td>
<td>$317,265,768</td>
<td>$2,359</td>
</tr>
<tr>
<td>B</td>
<td>245,423</td>
<td>32.3%</td>
<td>$682,713,295</td>
<td>$2,782</td>
</tr>
<tr>
<td>C</td>
<td>67,973</td>
<td>8.9%</td>
<td>$169,235,986</td>
<td>$2,490</td>
</tr>
<tr>
<td>D</td>
<td>190,103</td>
<td>25.0%</td>
<td>$450,207,287</td>
<td>$2,368</td>
</tr>
<tr>
<td>E</td>
<td>122,622</td>
<td>16.1%</td>
<td>$311,542,700</td>
<td>$2,541</td>
</tr>
<tr>
<td>Total</td>
<td>760,608</td>
<td>100.0%</td>
<td>$1,930,965,036</td>
<td>$2,539</td>
</tr>
</tbody>
</table>

Three Year Dataset from Medicaid
Contains over **78 Million**
Claims Representing **750,000+** Enrollees
And
~ **$1.9B SPEND** in 2013
How Big is Big?

Medical Claim per “event”

Alabama Medicaid, 3 Years

75 MILLION Claims
225 Million Pages at 3 per claim

=450,000 Boxes

Big Mountain
5.4 Miles

Big Data
14.2 Miles High
Data Analytics Frames Emerging Care Strategy

Spending Patterns and Populations
1. Where are Medicaid dollars being spent and what portion of the spend is delivered by potential network participants?
2. What are the key populations that utilize services? Key demographics?

Medical Conditions and Utilization
3. What medical conditions drive most of the spend? What clinical focus areas emerge to manage spend?

Care Management Priority Opportunities
4. Are there any specific spending hot spots that appear to be of high value for focused clinical management (ex. generic drug spend, ED visits, readmits)

RCO Provider Network
5. Which hospitals are most important to an RCO network?
6. Which physician groups are most important to an RCO network?
7. Are other parties important to an RCO network?
8. Does the data inform strategy around Children’s Hospitals?
9. Does the data inform strategy around out of state providers?

Spending Variation and Emerging Priorities
10. Does Regional Spending Variation Identify Critical Success Areas?
Enterprise Intelligence Accelerates the Journey

- FFS Reimbursement Reductions
- Penalty Avoidance and Pay for Performance
- Bundled Payment (BPCI)
- Capitation, Shared Savings (MSSP)

- Market Intelligence to Accelerate Growth Strategies
- Cost Variation and Clinical Outcomes Tools
- Revenue Optimization Tools

  - Penalty Avoidance/Management
  - Maximization of Value Based opportunities

  - Delivery Model “Modeling”
  - Delivery Model “Management”
  - Post Acute Channel Selection/Management

  - Custom Mining of Big Data
  - Population Health/Care Management
**Definition:** PHM programs are a set of interventions designed to **maintain and improve people’s health** across the full continuum of care—from low-risk, healthy individuals to high-risk individuals with one or more chronic conditions.
The Enterprise Intelligence Path to Risk Capability

- Market Intelligence to Accelerate Growth Strategies
- Cost Variation and Clinical Outcomes Tools
- Revenue Optimization Tools
- Penalty Avoidance/Management
- Delivery Model “Modeling”
- Delivery Model “Management”
- Post Acute Channel Selection/Management
- Population Health/Care Management
- Custom Mining of Big Data (when necessary)
Kicking The Tires – A Case Study
One Journey: Providence Hospitals

- Uses an internal cost accounting system
- Working on internal cost reductions
- Decentralized decision support

- Strong internal leadership
- CFO engaged
- Proactive management

Analytic drilldown by service line
- Broad sharing of information
- Commercial bundles

- Not subject yet

FFS Reimbursement Reductions
Penalty Avoidance and Pay for Performance
Bundled Payment (BPCI)
Capitation, Shared Savings (MSSP)
Providence Hospitals Performance

Value Based Purchasing & Readmission Penalty Scores

No Penalty for HAC in 2015
# Providence Historical Trends

## Sisters of Charity Providence HSAPs

<table>
<thead>
<tr>
<th>Value Based Purchasing:</th>
<th>VBP FY'13 Total Performance</th>
<th>VBP FY'14 Total Performance</th>
<th>VBP FY'15 Total Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earned Back</td>
<td>$592,881</td>
<td>$326,516</td>
<td>$861,419</td>
</tr>
<tr>
<td>Unearned</td>
<td>$326,516</td>
<td>$326,516</td>
<td>$1,074,750</td>
</tr>
<tr>
<td>Available $5</td>
<td>$599,881</td>
<td>$1,336,168</td>
<td>$1,310,885</td>
</tr>
<tr>
<td>Realization</td>
<td>64.50%</td>
<td>44.13%</td>
<td>44.99%</td>
</tr>
<tr>
<td>Breakaways Point</td>
<td>$500,282</td>
<td>$625,352</td>
<td>$750,422</td>
</tr>
<tr>
<td>Bonus / (Penalty)</td>
<td>$92,600</td>
<td>$46,828</td>
<td>$110,996</td>
</tr>
</tbody>
</table>

## Readmission Reduction Program:

<table>
<thead>
<tr>
<th>RRP Performance Penalties</th>
<th>FY 2013</th>
<th>FY 2014</th>
<th>FY 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Penalties by Fiscal Year</td>
<td>$63,583</td>
<td>$101,859</td>
<td>$55,966</td>
</tr>
</tbody>
</table>

## Hospital-Acquired Conditions:

<table>
<thead>
<tr>
<th>HAC Performance Score</th>
<th>Fiscal Year</th>
<th>Score</th>
<th>Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td></td>
<td>6.55</td>
<td>-</td>
</tr>
</tbody>
</table>

## Realization Rates by Fiscal Year

- FY 2013
- FY 2014
- FY 2015
Data Takeaway #1 – In lieu of “ideal” episodes with high variability and high prices, those with either high variability or high target prices should be considered.
Relative BPCI – Impactable Costs
Previously Identified Episodes

BPCI – Impactable Spending by Episode

BPCI Impactable Spending = (Mean Payment - (Hospital Index + Part B Professional + DME))

Data Takeaway – Good BPCI Episodes have high per case “impactable” spending
BPCI – Impactable Spending by Episode

Average Post Acute BPCI Impactable Spending

Data Takeaway—Post acute providers—particularly SNFs—could see their utilization reduced in BPCI
Intelligent Things To Do Tomorrow
7 Things Every Provider Should Do Tomorrow

1. Inventory of current at risk contracts or models under discussion and analytics capabilities that have been deployed in these to date.

2. Focus on biggest and highest value opportunities first, these may very well be “outside the box” - start with questions first, not data.

3. Assessment of current internal capabilities for enterprise intelligence.

4. Assessment of external resources for enterprise intelligence. Narrow outsourcing to analytic resources, not care delivery or continuum management which will be a necessary core competency.

5. Establish realistic but aggressive goals for the next 1, 2 and 3 years for where the organization must be with enterprise intelligence.

6. Process/Procedure for coordination of data/finance/clinical to be sure all are current with initiatives, assigning clear ownership and accountability.

7. Accelerate a CMS alternative payment pilot to get in the game. This may involve joining in with a partner.