How to Adapt Data Analytics for Data-Driven Decision Making

September 20, 2017
Introduction

Deborah Watkins, CEO

Deborah has worked closely with the Centers for Medicare and Medicaid Services (CMS) as the first reporting agent participating in beta testing. She also worked with CMS and congressional staff advocating for transparency and improvements in the MSP program.

During her tenure at Gould & Lamb, the company received the 2010 Oracle Titan Award and Gartner 1to1 CRM Silver Award for technology implementation of an enterprise analytics platform.

Deborah has worked in major roles for group health, workers comp and group benefit insurance companies. She participated in the Federal Medicare + Choice pilot program, the precursor for Medicare Advantage C plans and is recognized for excellence in medical claims management and return to work outcomes.

She has a Master’s in Healthcare Leadership (MBA/MPH) from Brown University and a Master of Science in Nursing. She is a past board secretary for the National Association of Medicare Set Aside Professionals (NAMSAP).

Jim Paugh, SVP

Jim has an extensive background within workers’ compensation insurance from safety and loss control to claim management and consulting to underwriting and claim analytics. He has developed many Key Performance Indicators for use by regulators, carriers and Fortune 500 employers as well as associated predictive models for claim complexity, case management and provider outcomes.

He formerly held leadership positions with Deloitte Consulting, Verisk Analytics and Paradigm Management Services. In these positions, he managed and worked on projects for predictive modeling in workers’ compensation for a $2B underwriter, one of the first claims complexity models for a large national carrier and reserving application for a national third-party administrator. Other project work included, WC and liability claim reviews, medical malpractice regulatory audits and dashboard development work for an actuarial firm and carrier.
Objectives

Discuss
Introduction to the ever changing world of data analytics

Understand
How Workers’ Compensation Data Mining Can Yield Important and Actionable Information

Learn
How to Develop Key Performance Indicators/Metrics
MONEYBALL AND SABERMETRICS
Indicators of Offensive Success

Traditional Measure
- Batting Average
- Home Runs
- Pitching Wins
- Stolen Bases
- RBI’s

Moneyball Measures
- On-Base %-age
- Slugging %-age
- 100 pitch count
  - >65% Strikes
  - <58% Strikes

<table>
<thead>
<tr>
<th>Runner on...</th>
<th>0 out</th>
<th>1 out</th>
<th>2 out</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empty Bases</td>
<td>0.454</td>
<td>0.249</td>
<td>0.095</td>
</tr>
<tr>
<td>1st Base</td>
<td>0.783</td>
<td>0.478</td>
<td>0.209</td>
</tr>
<tr>
<td>2nd Base</td>
<td>1.068</td>
<td>0.699</td>
<td>0.348</td>
</tr>
<tr>
<td>3rd Base</td>
<td>1.277</td>
<td>0.897</td>
<td>0.382</td>
</tr>
<tr>
<td>1st and 2nd</td>
<td>1.380</td>
<td>0.888</td>
<td>0.457</td>
</tr>
<tr>
<td>1st and 3rd</td>
<td>1.639</td>
<td>1.088</td>
<td>0.494</td>
</tr>
<tr>
<td>2nd and 3rd</td>
<td>1.946</td>
<td>1.371</td>
<td>0.661</td>
</tr>
<tr>
<td>Bases Loaded</td>
<td>2.254</td>
<td>1.546</td>
<td>0.798</td>
</tr>
</tbody>
</table>

Expected Future Runs Scored in an inning given certain conditions. (1961-77 data set)
The Moneyball Impact

- Moneyball changes the way baseball teams evaluate performance for draftees and veteran talent
- Moneyball allows teams to focus on value-talent vs. “proto-typical” talent
- Moneyball changed the balance of power allowing smaller market teams to compete at the highest levels.
# Changing the Outcomes

## Years from Last World Series Championship

<table>
<thead>
<tr>
<th>Year</th>
<th>Team</th>
<th>Years since last win</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>Arizona Diamondbacks</td>
<td>21</td>
</tr>
<tr>
<td>1980</td>
<td>Anaheim Angels</td>
<td>21</td>
</tr>
<tr>
<td>1990</td>
<td>Florida Marlins</td>
<td>14</td>
</tr>
<tr>
<td>1970</td>
<td>Boston Red Sox</td>
<td>6</td>
</tr>
<tr>
<td>1980</td>
<td>St. Louis Cardinals</td>
<td>24</td>
</tr>
<tr>
<td>1990</td>
<td>Chicago White Sox</td>
<td>46</td>
</tr>
<tr>
<td>2001</td>
<td>Boston Red Sox</td>
<td>3</td>
</tr>
<tr>
<td>2002</td>
<td>Philadelphia Phillies</td>
<td>28</td>
</tr>
<tr>
<td>2003</td>
<td>New York Yankees</td>
<td>9</td>
</tr>
<tr>
<td>2004</td>
<td>San Francisco Giants</td>
<td>5</td>
</tr>
<tr>
<td>2005</td>
<td>St. Louis Cardinals</td>
<td>3</td>
</tr>
<tr>
<td>2006</td>
<td>San Francisco Giants</td>
<td>6</td>
</tr>
<tr>
<td>2007</td>
<td>Boston Red Sox</td>
<td>2</td>
</tr>
<tr>
<td>2008</td>
<td>San Francisco Giants</td>
<td>2</td>
</tr>
<tr>
<td>2009</td>
<td>Kansas City Royals</td>
<td>6</td>
</tr>
<tr>
<td>2010</td>
<td>Chicago Cubs</td>
<td>108</td>
</tr>
</tbody>
</table>

- **1970 Decade**: 21 years since last win
- **1980 Decade**: 21 years since last win
- **1990 Decade**: 14 years since last win
- **2001**: 6 years since last win
- **2002**: 24 years since last win
- **2003**: 46 years since last win
- **2004**: 3 years since last win
- **2005**: 28 years since last win
- **2006**: 9 years since last win
- **2007**: 5 years since last win
- **2008**: 3 years since last win
- **2009**: 6 years since last win
- **2010**: 2 years since last win
- **2011**: 6 years since last win
- **2012**: 2 years since last win
- **2013**: 6 years since last win
- **2014**: 108 years since last win

- **Average Years since last win**: 39.7 years
- **Most recent win**: 1970

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Who’s Next:
Longest current World Series championship droughts

<table>
<thead>
<tr>
<th>Seasons</th>
<th>Team</th>
<th>Last championship won</th>
<th>Last World Series appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>68</td>
<td>Cleveland Indians</td>
<td>1948</td>
<td>2016</td>
</tr>
<tr>
<td>56</td>
<td>Texas Rangers</td>
<td>Never (franchise began 1961)</td>
<td>2011</td>
</tr>
<tr>
<td>55</td>
<td>Houston Astros</td>
<td>Never (franchise began 1962)</td>
<td>2005</td>
</tr>
<tr>
<td>48</td>
<td>Milwaukee Brewers</td>
<td>Never (franchise began 1969)</td>
<td>1982</td>
</tr>
<tr>
<td>40</td>
<td>Seattle Mariners</td>
<td>Never (franchise began 1977)</td>
<td>never</td>
</tr>
<tr>
<td>37</td>
<td>Pittsburgh Pirates</td>
<td>1979</td>
<td>1979</td>
</tr>
<tr>
<td>33</td>
<td>Baltimore Orioles</td>
<td>1983</td>
<td>1983</td>
</tr>
<tr>
<td>32</td>
<td>Detroit Tigers</td>
<td>1984</td>
<td>2012</td>
</tr>
<tr>
<td>30</td>
<td>New York Mets</td>
<td>1986</td>
<td>2015</td>
</tr>
</tbody>
</table>
1. How do you measure & quantify risk?
2. Haven’t we been using analytics for years? Is there anything new here?
3. Isn’t analytics already built into the Enterprise Risk Management (ERM) function?
4. Can analytics help with financial statements and reporting?
5. What role can analytics play in meeting regulatory requirements?
Example of Using Data Analytics

We randomly, confidentially surveyed 36 payers about Medicare Secondary Payer Compliance

SURVEY RESULTS

- Outsource CMS Section 111 Reporting: 66%
- Fragmented Vendor Utilization (More than a single MSA vendor is used): 71%
- Lack of Centralized Program: 71%
- No tracking method to monitor risk compliance: 94%
- Confidence in Adjuster Competence with MSP Compliance: 8%
- MSA delays/ precludes settlement (subjective report, not quantified): 100%
Risk Management Process

Identify Risk: No tracking method to monitor MSP Compliance Risk

Examine Risk Management Techniques: Consider use of Data analytics

Select Risk Management Technique: Integrated Data Analytics risk management platform

Implement Data Analytics approach

Measure & Monitor Data Analytics Approach & Outcomes
How to Develop Key Performance Indicators/Metrics

<table>
<thead>
<tr>
<th>Most Measure for KPIs:</th>
<th>Easy to calculate, useful as “rule of thumb” but offers little insight into problem solving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average (Mean)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Measurements:</th>
<th>Easy to calculate, but dives deeper showing opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td></td>
</tr>
<tr>
<td>Standard Deviation 1,2,3</td>
<td></td>
</tr>
<tr>
<td>Counts</td>
<td></td>
</tr>
<tr>
<td>Relationships/Ratios</td>
<td></td>
</tr>
<tr>
<td>Modeling Variables</td>
<td></td>
</tr>
</tbody>
</table>
How to Develop Key Performance Indicators/Metrics

Financial (Money) + Activity-Based (Work) + Red-Flag (Work) = Total Ratio

Adjuster
Policy Holder
Injury Type
Network

NEW/RENEW
UNDERWRITING
LEGAL/LITIGATION

SIC Industry &
Class Codes

Pricing
Audit

Loss Control
Claim
Financial Performance KPI's

1) Premium-to-surplus Ratio
2) ALAE
3) ULAE
4) Loss Ratio
5) Premium Growth
6) Written to Earned Premium
7) Reserve Development Ratio
8) Recurring Revenue to Equity
9) Recurring Revenue / EE
10) Underwriting Leverage
11) Operating Ratio
12) UW Expense Ratio
Activity-based KPIs

1. Cycle Times
2. Payment Days
3. Claim Durations
4. Cancel/Reinstate
5. Pre/post loss inspections
6. UW Inspections
7. Inventory Load
   1. Policy Apps
   2. Claims
   3. Matters
   4. Inspections
8. Re-work - Incomplete apps
9. Declinations
10. Lapses and Attrition
11. Collections
12. Audit Adjustments
13. Sales Volume/Growth
14. Commission Ratio
15. Sales Targets/Commitments
16. Blocking Ratio
17. Reserve Adjustments
18. Open/Re-Open/Closed
19. Subrogation
20. Litigation Ratio
21. Litigation payout ratio
22. Compliance Ratio/Penalty
23. News Worthy Incidents
24. Scheduled CR/DR
25. Claim Ratio
26. Claim Complexity Ratio
27. Payment Accuracy
28. RX / Opioid / MEDD
29. Claim Re-assignments
30. Delay and Denial Rates
31. Payroll Changes
32. Validation
“RED” Flags as potential measures

- Every vendor provides RED flags as a way to garner referral business.
- The goal is to “validate” these truisms through analytics.

<table>
<thead>
<tr>
<th>Claimant</th>
<th>Medical Provider</th>
<th>Attorney</th>
<th>Chronic Pain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Number of days worked and amount of salary inconsistent with occupation;</td>
<td>1. Injured worker does not recall having received the billed service;</td>
<td>1. Representation letter received within a few days of the incident.</td>
<td>1. Continued pain or increased pain 3 months post injury</td>
</tr>
<tr>
<td>2. Injured worker disputes average weekly wage due to additional income (i.e., per diem and/or 1099 income);</td>
<td>2. Provider’s medical reports read almost identically even though they are for different patients with different conditions;</td>
<td>2. Attorney consistently deals with same medical providers.</td>
<td>2. Injured Worker referred to a Pain Management Program</td>
</tr>
<tr>
<td>3. Cross-outs, white-outs and erasures on documents;</td>
<td>3. Much higher health-care costs than expected for the allowed injury type;</td>
<td>3. Attorney consistently willing to compromise for low dollar amounts.</td>
<td>3. Injured Worker referred for spine surgery</td>
</tr>
<tr>
<td>4. Injured worker files for benefits in a state other than principle location of the alleged industrial injury or occupational disease;</td>
<td>4. Frequency of treatments or duration of treatment period is greater than expected for allowed injury type, especially for older (non-catastrophic) claims;</td>
<td>4. Attorney is single practitioner with offices in several cities.</td>
<td>4. Injured Worker has seen 2 or more care providers for same diagnosis or symptoms</td>
</tr>
<tr>
<td>5. Injured worker-listed occupation is inconsistent with employer’s stated business;</td>
<td>5. Frequent billing in older (non-catastrophic injury) claims;</td>
<td>5. First notice of claim comes from attorney or medical clinic</td>
<td>5. Pain mediation is prescribed by more than one medical provider</td>
</tr>
</tbody>
</table>


Case Management Associates, Inc.
HEDIS® NQF 0052 Low Back Pain: Use of Imaging

- Use of imaging studies for low back pain: percentage of members with a primary diagnosis of low back pain who did not have an imaging study (plain x-ray, MRI, CT scan) within 28 days of the diagnosis.

A higher rate represents better performance
50 California health plans scored from 61 to 90, with 2/3 below High Performance Level of 84.1.

A higher rate represents better performance.
Use of Imaging Studies: Proxy

Not exactly the same measures, but looks for use/overuse

**HEDIS®**

Use of imaging studies for low back pain: percentage of members with a primary diagnosis of low back pain who did not have an imaging study (plain x-ray, MRI, CT scan) within 28 days of the diagnosis.

**Outpatient Imaging Efficiency Measure**

This measures hospitals with Outpatients with low back pain who DID NOT have an MRI without trying recommended treatments first such as physical therapy.

**Health Plans**

A higher rate represents better performance

**Hospitals**

A higher rate represents better performance
Outpatients with low back pain who DID NOT have an MRI

US Hospitals: Outpatient Imaging Efficiency Measure
Proxy for HEDIS® Low Back Imaging

Opportunity:
50 points

This measures hospitals with Outpatients with low back pain who DID NOT have an MRI without trying recommended treatments first such as physical therapy.

A higher rate represents better performance
Making Data Actionable

• Defining Data Elements –
• Structured Data (numbers, formatted text)
• Unstructured Data (text or free-form)
  – Name variations: USA, U.S.A., America, United States, United States of America, US, U.S., not to mention typos.
• Care Bridge Approach to Data
## SECTION 3: COMPENSABLE CURRENT CONDITION ICD9/ICD10 CODES. AT LEAST ONE CODE IS REQUIRED.

Mandatory fields are ORANGE colored. Entering current condition code completes Version and Description fields.
Check if used to satisfy MMSEA 111 Reporting.

<table>
<thead>
<tr>
<th>BODY PART</th>
<th>ICD 10 CODE</th>
<th>ICD VERSION</th>
<th>ICD DESCRIPTION</th>
<th>Future Surgery Type</th>
<th>Body Part Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Back</td>
<td>m51.15</td>
<td>ICD10</td>
<td>Injrt disc disorders w radiculopa</td>
<td>63030-LOW BACK DISK SURGERY</td>
<td>Past</td>
</tr>
<tr>
<td>Low Back</td>
<td>m51.15</td>
<td>ICD10</td>
<td>Injrt disc disorders w radiculopa</td>
<td>64463-INJ FORAMEN EPIDURAL L/S</td>
<td>Future</td>
</tr>
<tr>
<td>Neck and Upper Back</td>
<td>L02.11</td>
<td>ICD10</td>
<td>Cutaneous abscess of neck</td>
<td>10060-DRAINAGE OF SKIN ABSCESS</td>
<td>Future</td>
</tr>
</tbody>
</table>

- **- Body Part -**

- **- Body Part -**
## Precise Data - Surgery

### SECTION 3: COMPENSABLE CURRENT CONDITION ICD9/ICD10 CODES. AT LEAST ONE CODE IS REQUIRED.

Mandatory fields are ORANGE colored. Entering current condition code completes Version and Description fields.
Check if used to satisfy MMSEA 111 Reporting.

<table>
<thead>
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<tr>
<td>Low Back</td>
<td>m51.15</td>
<td>ICD10</td>
<td>Invert disc disorders w radiculopa</td>
<td>63030-LOW BACK DISK SURGERY</td>
<td></td>
</tr>
<tr>
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<td>m51.15</td>
<td>ICD10</td>
<td>Invert disc disorders w radiculopa</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>L02.11</td>
<td>ICD10</td>
<td>Cutaneous abscess of neck</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

### SECTION 4: UNRELATED ICD9/ICD10. ENTER TOP 4 CODES.

Entering current condition code populates Version and Description fields.

- **Surgery** -
  - 62311-Inject Spine L/S (CD)
  - 63030-Low Back Disk Surgery
  - 63047-Removal of Spinal Lamina
  - 64483-Inj Foramen Epidural L/S
## Precise Data - Drug

<table>
<thead>
<tr>
<th>Drug Name</th>
<th>Strength</th>
<th>Count</th>
<th>Route</th>
<th>NDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>OXYCODONE HCL/OXYCODONE TEREPTHALAL</td>
<td>10 MG</td>
<td>60</td>
<td>Oral</td>
<td>59011010010</td>
</tr>
<tr>
<td>OXYCODONE HCL-ACETAMINOPHEN</td>
<td>5 MG</td>
<td>60</td>
<td>Oral</td>
<td>00024549131</td>
</tr>
<tr>
<td>OXYCODONE HCL-ASPIRIN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OXYCODONE HCL-IBUPROFEN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OXYCONTIN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OXYDESS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OXYFAST</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OXYMORPHONE HCL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Data Analytics Dashboard

## CMS MSA (SAMPLE) DASHBOARD

### Body Part/Surgery Analytics

<table>
<thead>
<tr>
<th>Body Part</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neck and Upper Back</td>
<td>208,107</td>
</tr>
<tr>
<td>Shoulder/Arm</td>
<td>142,098</td>
</tr>
<tr>
<td>Low Back</td>
<td>136,786</td>
</tr>
<tr>
<td>Forearm/Wrist/Hand</td>
<td>128,935</td>
</tr>
<tr>
<td>Knee and Leg</td>
<td>123,763</td>
</tr>
</tbody>
</table>

### CMS Grouping (Clinical Classification System)

<table>
<thead>
<tr>
<th>CCS LEVEL 1</th>
<th>CCS LEVEL 2</th>
<th>Code Procedure</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diseases of the musculoskeletal system and connective</td>
<td>Non-traumatic joint disorders</td>
<td>27447-TOTAL KNEE ARTHROPLASTY</td>
<td>155,839</td>
</tr>
<tr>
<td>Diseases of the musculoskeletal system and connective</td>
<td>Non-traumatic joint disorders</td>
<td>23472-RECONSTRUCT SHOULDER JOINT</td>
<td>113,214</td>
</tr>
<tr>
<td>Diseases of the musculoskeletal system and connective</td>
<td>Non-traumatic joint disorders</td>
<td>26530-REVISE KNUCKLE JOINT</td>
<td>111,918</td>
</tr>
<tr>
<td>Diseases of the musculoskeletal system and connective</td>
<td>Non-traumatic joint disorders</td>
<td>27445-REVISION OF KNEE JOINT</td>
<td>96,411</td>
</tr>
<tr>
<td>Diseases of the musculoskeletal system and connective</td>
<td>Non-traumatic joint disorders</td>
<td>29805-SHoulder ARTHROSCOPY, DX</td>
<td>65,152</td>
</tr>
<tr>
<td>Diseases of the musculoskeletal system and connective</td>
<td>Non-traumatic joint disorders</td>
<td>07144-ACTION TREAT KNEE JOINT</td>
<td>44,803</td>
</tr>
</tbody>
</table>

### DX Codes Counts

<table>
<thead>
<tr>
<th>Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.4%</td>
</tr>
<tr>
<td>2 to 5</td>
<td>50.7%</td>
</tr>
<tr>
<td>6 to 10</td>
<td>16.9%</td>
</tr>
<tr>
<td>11 Plus</td>
<td>24.9%</td>
</tr>
</tbody>
</table>

### DX Codes Cost

<table>
<thead>
<tr>
<th>Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.08%</td>
</tr>
<tr>
<td>2 to 5</td>
<td>20.19%</td>
</tr>
<tr>
<td>6 to 10</td>
<td>69.20%</td>
</tr>
<tr>
<td>11 Plus</td>
<td>10.53%</td>
</tr>
</tbody>
</table>
Drill Down

CMS MSA (SAMPLE) DASHBOARD

Body Part/Surgery Analytics

- **Body Part**
  - Neck and Upper Back: 208,107
  - Shoulder/Arm: 142,098
  - Low Back: 136,786
  - Forearm/Wrist/Hand: 128,935
  - Knee and Leg: 123,763

- **Gender**
  - Male: 99.3%
  - Female: 0.7%

CMS Grouping (Clinical Classification System)

<table>
<thead>
<tr>
<th>CCS LEVEL 1</th>
<th>CCS LEVEL 2</th>
<th>Code Procedure</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diseases of the musculoskeletal system and connective tissue</td>
<td>Non-traumatic joint disorders</td>
<td>23462-RECONSTRUCT SHOULDER JOINT</td>
<td>113,214</td>
</tr>
<tr>
<td></td>
<td></td>
<td>29805-SHOULDER ARTHROSCOPY, DX</td>
<td>65,152</td>
</tr>
<tr>
<td></td>
<td>Other connective tissue disease [211]</td>
<td>29827-ARTHROSCOP ROTATOR CUFF REP..</td>
<td>175,223</td>
</tr>
<tr>
<td></td>
<td></td>
<td>29805-SHOULDER ARTHROSCOPY, DX</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>24340-REPAIR OF BICEPS TENDON</td>
<td></td>
</tr>
</tbody>
</table>

DX Codes Counts

- 1: 3.6%
- 2 to 5: 75.0%
- 6 to 10: 39.3%
- 11 Plus: 28.6%

DX Codes Cost

- 1: 0.05%
- 2 to 5: 9.24%
- 6 to 10: 59.85%
- 11 Plus: 30.87%
MSA KPIs

Day

<table>
<thead>
<tr>
<th>DX Grouping</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>1.3</td>
</tr>
<tr>
<td>Moderate</td>
<td>0.7</td>
</tr>
<tr>
<td>Severe</td>
<td>1.5</td>
</tr>
<tr>
<td>Catastrophic</td>
<td>6.6</td>
</tr>
</tbody>
</table>

Legend:
- Overall
- Moderate
- Severe
- Catastrophic

- Carrier
- Company
- Nurse
- Adjuster
- Opioids
- State
- Attorney
- Surgery
Word Count: “Therapy” vs Claim Cost
Word Cloud: Services to Claim Cost

- **spine**
  - Coefficient: 0.7392
  - Appears in 100 rows

- **a**

- Words related to diagnostic types: emg, contrast, thoracic, bmp, ankle, knee, wo, screens, rays, left, right, cervical, venipuncture, upper extremities, studies, panel, metabolic, 73030.
Key Performance Indicators

Develop Action Plans for Outcomes

Claim Outcome Measures
- Examine Time Periods and Counts
- Identify Strongest Univariates and other Data Elements
- Compare Treatment Guidelines and UR
- Identify those that Impact Outcomes

Claim Operations Measures
- Perform Running Analyses
- Budget Performance
- Staffing Demographics • Hours • Rating • Vendor Mgmt
- Policy, Premiums and Markets
It’s All About Outcomes

Date of Injury

- Wage Replacement
- Waiting Period Impact
- AWW
- Co-Morbidities

- MD Visits
- DC Visits
- RX Fills
- MD_RX Fills
- RX Changes
- MD Changes

- Stay at Work
- Repeat Ratio
- Disability Ratio
- Case Load Ratio by Complexity

“Window of Suggestibility”

60 DAYS

New Data Sources

New Tools & Methods

New Measures

New Outcomes for All

9/20/2017

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References