Workers’ Compensation Challenges and Solutions

Vikas Shah, Baldwin & Lyons, Inc.
Michael Case, Baldwin & Lyons, Inc.
Mitch Freeman, PMSI
WORKERS’ COMPENSATION TRENDS
IN THE TRANSPORTATION INDUSTRY

Vikas Shah, FCAS, CERA, MAAA
Head Actuary, Pricing and ERM
After Recession, GDP Rebounded and Growing

Real GDP (annualized, seasonally adjusted, in billions)

Sources: US Department of Commerce Bureau of Economic Analysis
Federal Reserve Bank of St. Louis FRED
Transportation GDP Growing Faster than Overall

Real GDP by state (chained dollars) - Transportation and utilities, 2009-2012 compound annual growth rate

Source: BEA U.S. = 4.33%
- 4.76 to 18.98
- 3.43 to 4.75
- -0.75 to 3.42
Cass Freight Indices (2000 – Present)

Cass Index, Expenditures and Shipments

Expenditure Index
Shipments Index
Cass Freight Indices (2009 – Present)

Expenditure Index - +12% annual growth
Shipment Index - +5% annual growth
ATA Truck Tonnage Index

YTD increase (through June) of 4.7% over 2012

Sources: American Transportation Association Truck Tonnage Index
### Truck Drivers Age Distribution vs. All Occupations

<table>
<thead>
<tr>
<th>Age</th>
<th>All Occupations % of Persons</th>
<th>Truck Drivers % of Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-19</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>20-24</td>
<td>9%</td>
<td>5%</td>
</tr>
<tr>
<td>25-34</td>
<td>22%</td>
<td>18%</td>
</tr>
<tr>
<td>35-44</td>
<td>21%</td>
<td>22%</td>
</tr>
<tr>
<td>45-54</td>
<td>23%</td>
<td>28%</td>
</tr>
<tr>
<td>55-64</td>
<td>16%</td>
<td>19%</td>
</tr>
<tr>
<td>65+</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>Median Age</td>
<td>42.3</td>
<td>45.7</td>
</tr>
</tbody>
</table>

Sources: bls.gov, “Employed persons by detailed occupation and age, 2012 annual averages”
## Incident Rate by Age

<table>
<thead>
<tr>
<th>Age</th>
<th>All Industries</th>
<th>Truck Transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% of Persons</td>
<td>% of Incidents</td>
</tr>
<tr>
<td>16-19</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>20-24</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td>25-34</td>
<td>22%</td>
<td>22%</td>
</tr>
<tr>
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<td>23%</td>
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<td>25%</td>
</tr>
<tr>
<td>55-64</td>
<td>16%</td>
<td>15%</td>
</tr>
<tr>
<td>65+</td>
<td>5%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Sources:
- bls.gov, “Employed persons by detailed industry and age, 2012 annual averages”
- bls.gov, “Number of nonfatal occupational injuries and illnesses involving days away from work (1) by selected worker and case characteristics and industry, All U.S., private industry, 2011”
### Transportation Industry Median Tenure vs. All Industries

<table>
<thead>
<tr>
<th>Year</th>
<th>Median Tenure All Industries</th>
<th>Median Tenure Transportation/Warehousing</th>
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</thead>
<tbody>
<tr>
<td>2002</td>
<td>3.7</td>
<td>4.3</td>
</tr>
<tr>
<td>2004</td>
<td>4.0</td>
<td>4.7</td>
</tr>
<tr>
<td>2006</td>
<td>4.0</td>
<td>4.3</td>
</tr>
<tr>
<td>2008</td>
<td>4.1</td>
<td>4.6</td>
</tr>
<tr>
<td>2010</td>
<td>4.4</td>
<td>5.0</td>
</tr>
<tr>
<td>2012</td>
<td>4.6</td>
<td>5.3</td>
</tr>
</tbody>
</table>

### Incident Rate by Tenure

<table>
<thead>
<tr>
<th>Tenure</th>
<th>All Industries</th>
<th>Truck Transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% of Persons</td>
<td>% of Incidents</td>
</tr>
<tr>
<td>0-1</td>
<td>21%</td>
<td>28%</td>
</tr>
<tr>
<td>2-5</td>
<td>32%</td>
<td>35%</td>
</tr>
<tr>
<td>5+</td>
<td>47%</td>
<td>36%</td>
</tr>
</tbody>
</table>

Sources:
- bls.gov, “EMPLOYEE TENURE IN 2012”
- bls.gov, “Number of nonfatal occupational injuries and illnesses involving days away from work (1) by selected worker and case characteristics and industry, All U.S., private industry, 2011”
Impact of Expanding Economy

- Need more drivers
- Already experiencing large driver turnover
- HOS changes in effect
- Aging driver force compounds issue
- New drivers are less experienced
- Unfamiliar operations
- Claim frequencies will go up
NCCI: Workers' Compensation Medical Severity—Modest Increase in 2012

Average Medical Cost per Lost-Time Claim

Medical Claim Cost (000s)

Annual Change 1991–1993: +1.9%
Annual Change 1994–2001: +8.9%
Annual Change 2002–2011: +5.7%

2012p: Preliminary based on data valued as of 12/31/2012
1991–2011: Based on data through 12/31/2011, developed to ultimate; excludes high deductible policies
Average severity for the states where NCCI provides ratemaking services, including state funds; excluding WV

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Workers Compensation Indemnity Claim Costs—Small Increase in 2012

Average Indemnity Cost per Lost-Time Claim

Indemnity Claim Cost (000s)

Annual Change 1991–1993: −1.7%
Annual Change 1994–2001: +7.3%
Annual Change 2002–2011: +3.2%

2012p: Preliminary based on data valued as of 12/31/2012
1991–2011: Based on data through 12/31/2011, developed to ultimate; excludes high deductible policies
Average severity for the states where NCCI provides ratemaking services, including state funds, excluding WV

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Baldwin & Lyons Saves on Claim Costs

<table>
<thead>
<tr>
<th>Region</th>
<th>Industry Trucking Work Comp Costs</th>
<th>Protective Trucking Work Comp Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average Medical</td>
<td>Average Indemnity</td>
</tr>
<tr>
<td>Midwest</td>
<td>13,756</td>
<td>16,406</td>
</tr>
<tr>
<td>Northeast</td>
<td>13,274</td>
<td>18,183</td>
</tr>
<tr>
<td>Southeast</td>
<td>13,512</td>
<td>14,257</td>
</tr>
<tr>
<td>West</td>
<td>10,258</td>
<td>8,611</td>
</tr>
<tr>
<td>Total</td>
<td>12,637</td>
<td>13,519</td>
</tr>
</tbody>
</table>

Baldwin & Lyons’ total of 21,444 per claims is 18% less than industry total of 26,156!

Sources: National Council on Compensation Insurance (NCCI) Workstation
Latest 3 available report periods, Trucking class codes only
## Savings on All Types of Claims

<table>
<thead>
<tr>
<th>Cause of Injury</th>
<th>Industry Trucking Work Comp Costs</th>
<th>Baldwin &amp; Lyons Trucking Work Comp Costs</th>
<th>% Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% of Claims</td>
<td>Average Medical</td>
<td>Average Indemnity</td>
</tr>
<tr>
<td>Strain</td>
<td>33%</td>
<td>11,277</td>
<td>14,538</td>
</tr>
<tr>
<td>Fall/Slip/Trip</td>
<td>25%</td>
<td>16,110</td>
<td>17,347</td>
</tr>
<tr>
<td>Struck By</td>
<td>13%</td>
<td>8,826</td>
<td>8,654</td>
</tr>
<tr>
<td>Motor Vehicle</td>
<td>9%</td>
<td>31,753</td>
<td>31,902</td>
</tr>
<tr>
<td>Misc. Causes</td>
<td>8%</td>
<td>8,697</td>
<td>9,434</td>
</tr>
<tr>
<td>Striking Against/Stepping On</td>
<td>5%</td>
<td>5,329</td>
<td>5,743</td>
</tr>
<tr>
<td>Cut/Puncture/Scrape</td>
<td>3%</td>
<td>3,881</td>
<td>2,399</td>
</tr>
<tr>
<td>Caught in Between</td>
<td>3%</td>
<td>8,102</td>
<td>7,437</td>
</tr>
<tr>
<td>Burn</td>
<td>1%</td>
<td>12,822</td>
<td>6,638</td>
</tr>
</tbody>
</table>

Sources: National Council on Compensation Insurance (NCCI) Workstation
Latest 3 available report periods, Trucking class codes only

Baldwin & Lyons, Inc.
The Pledge of Excellence

@BaldwinandLyons
#BLCS
# Largest Claims Result in Largest Savings

<table>
<thead>
<tr>
<th>Loss Type</th>
<th>Industry Trucking Work Comp Costs</th>
<th>Baldwin &amp; Lyons Trucking Work Comp Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% of Claims</td>
<td>Average Medical</td>
</tr>
<tr>
<td>Medical Only</td>
<td>58%</td>
<td>1,068</td>
</tr>
<tr>
<td>Temporary Total</td>
<td>26%</td>
<td>12,410</td>
</tr>
<tr>
<td>Permanent Total, Permanent Partial, Fatal</td>
<td>16%</td>
<td>49,263</td>
</tr>
</tbody>
</table>

Sources: National Council on Compensation Insurance (NCCI) Workstation
Latest 3 available report periods, Trucking class codes only
Another Look by Body Part Injured

<table>
<thead>
<tr>
<th>Body Part Injured</th>
<th>Industry Trucking Work Comp Costs</th>
<th>Baldwin &amp; Lyons Trucking Work Comp Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% of Claims</td>
<td>Average Medical</td>
</tr>
<tr>
<td>Upper Extremities</td>
<td>31%</td>
<td>9,960</td>
</tr>
<tr>
<td>Lower Extremities</td>
<td>25%</td>
<td>9,946</td>
</tr>
<tr>
<td>Trunk</td>
<td>23%</td>
<td>12,945</td>
</tr>
<tr>
<td>Multiple Body Parts</td>
<td>10%</td>
<td>27,464</td>
</tr>
<tr>
<td>Head</td>
<td>9%</td>
<td>10,708</td>
</tr>
<tr>
<td>Neck</td>
<td>2%</td>
<td>21,044</td>
</tr>
</tbody>
</table>

Sources: National Council on Compensation Insurance (NCCI) Workstation
Latest 3 available report periods, Trucking class codes only
WORKERS’ COMPENSATION
COST CONTAINMENT STRATEGIES

Michael Case, Vice President of Claims,
General Counsel & Secretary
WC Challenges and Key Factors Driving Rising WC Costs

- Utilization
- Prescription drug costs
- Aging workforce
- Obesity
- Tort costs
- Limited return-to-work opportunities
Actions Taken to Combat Rising Costs

- **Nurse Case Manager (NCM) Program:**
  - *Supervised by our medical manager,* our NCM program is a regional system staffed with fully licensed RN-BSNs in the various states.
  - *With an emphasis on early intervention,* nurses triage all lost time claims at day 14 and medical only claims with reserves over $10,000.
  - *Each nurse manages 40-50 claims* to develop a comprehensive medical management strategy.
    - This ensures the injured worker receives the appropriate and most cost-effective medical treatment.
    - Nurses also facilitate return-to-work plans on claims requiring disability management.
    - The entire team participates and conducts medical roundtables and committees on claims with special handling or medical challenges.
Actions Taken to Combat Rising Costs

• Field NCM Referral Process
  – Severity of injury, if claimant is hospitalized, failed/repeated surgeries, medical treatments without improvement, etc.
  – Vetted panel of field NCMs
  – Prior approval, limited engagement and NCM guidelines
  – Bills are audited and approved by medical manager

• Litigation Referral Process
  – Vetted panel counsel
  – Prior approval, limited engagement and attorney guidelines
  – Bills are audited and approved by litigation manager
Actions to Combat Rising Costs (continued)

Field NCM Referral Process - LAE Expense Savings

+ In 2013 through the second quarter, our utilization review savings totaled $2,051,854
Actions to Combat Rising Costs (continued)

- Litigation referral process/permanency & settlement review
  - Vetted panel counsel/prior approval/limited engagement
  - Bills are audited and approved by litigation manager
  - All permanency awards/settlements must be approved

- In 2012, our litigation permanency & settlement review savings totaled $516,924
- In 2013, our savings through the second quarter totaled $326,917
• Independent medical exam (IME) referral process
  – Vetted panel of IME doctors
  – Prep work performed by in-house NCMs
  – Mitigating costs of $1,000 - $1,200 per referral

+ Our IME savings in 2012 totaled **$181,000**.
  Through the second quarter of 2013, our savings reached **$129,000**.

• Medical inflation/average cost per lost time claim
  – Our average medical inflation from 2008 to 2011 was 2.71% versus the NCCI average of 3.925% over the same period
Predictive Modeling
Benchmark Against the Predictive Duration

- **Example:** 50 year-old male with lumbar sprain, very heavy job class with obesity, hypertension, smoker that lives in California
Return-to-Work (RTW) Solution

• CareWorks USA - Modified Duty Off-Site (MDOS) Program
  – Assists employers in returning their employees back to work by temporarily placing an employee with restrictions at a local non-profit organization.
  – Employees perform tasks and job duties within their physician-documented restrictions while continuing the rehabilitation necessary to transition back to their original job.
  – MDOS results in decreased lengths of disability, which in turn means direct cost savings and cost avoidance for our employees.
    • Placement success rate is 94%
    • Mid-range of lost time days saved per case is 59.5 days (1 to 119 days)
    • 79% successful RTW, 11% terminated for cause or violation of written work policy and 4% refuse participation
    • Average time to secure a placement is 48 hours
    • Average time from referral to MDOS start date is 8.6 days
Continuous Improvement

- CA MPN Network – controls medical costs in California

- California Certification
  - 160 hours of training
  - 4 super users
  - 4 certified handlers

- 24/7 Ask a Nurse Program – prevents/reduces claims
Introductions

PMSI Presenter

Mitch Freeman, PharmD
PMSI Chief Sales and Marketing Officer
Topics of discussion

- PMSI company overview
- Pharmacy spend in workers’ compensation
- PMSI cost containment approach
  - Lowest effective drug cost
  - Proactive clinical management
- Why PMSI?
- Questions and answers
PMSI Company Overview
PMSI Company Overview – Fast Facts

PMSI has a history of providing innovative pharmacy solutions to the workers’ compensation market.

- Workers’ compensation specialty services company
- Largest standalone workers’ compensation-focused pharmacy benefit manager (PBM)
- Headquartered in Tampa, Fla.
- 670 employees
- PBM experiencing healthy growth
- Three business units supported by integrated account management, clinical, informatics, technology and government affairs functions
- Serves more than 900 clients including many of the country’s largest payors and TPAs
## PMSI Company Overview – Industry Challenges

*PMSI’s program is designed to meet the unique challenges of workers’ compensation*

<table>
<thead>
<tr>
<th>Healthcare spending</th>
<th>Group Health</th>
<th>Workers’ Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>~$3 Trillion</td>
<td>~$30 Billion</td>
<td></td>
</tr>
<tr>
<td>Defined benefit plan</td>
<td>100% medical cost coverage</td>
<td></td>
</tr>
<tr>
<td>Varying levels of coverage</td>
<td>Eligibility determined retrospectively</td>
<td></td>
</tr>
<tr>
<td>Eligibility determined prospectively</td>
<td>Open network</td>
<td></td>
</tr>
<tr>
<td>Closed network</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primarily medical issues</td>
<td>Primarily physical injuries</td>
<td></td>
</tr>
<tr>
<td>Chronic disease</td>
<td>Pain management</td>
<td></td>
</tr>
<tr>
<td>End of life care</td>
<td>Appropriate use of narcotics</td>
<td></td>
</tr>
<tr>
<td>Health and wellness</td>
<td>Return claimant to work</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Pain medication mix</th>
<th>Group Health</th>
<th>Workers’ Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>3% of total drug spend</td>
<td>75% of total drug spend</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key customer issues</th>
<th>Group Health</th>
<th>Workers’ Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare reform</td>
<td>Narcotic use and diversion</td>
<td></td>
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<tr>
<td>Mandated benefits</td>
<td>Limited ability to direct care</td>
<td></td>
</tr>
<tr>
<td>Administrative efficiency</td>
<td>Increasing severity of injuries</td>
<td></td>
</tr>
<tr>
<td>Utilization management</td>
<td>Network/utilization management</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regulatory dynamics</th>
<th>Group Health</th>
<th>Workers’ Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavily influenced by federal government</td>
<td>State-based legislation</td>
<td></td>
</tr>
<tr>
<td>Subject to uncertainty of healthcare reform</td>
<td>Insulated from federal changes/budgetary issues</td>
<td></td>
</tr>
</tbody>
</table>
Pharmacy Spend in Workers’ Compensation
Liberal Prescribing Leads to Opioid Overuse

Increase in opioid use in U.S. population

Opioids Increase Workers’ Compensation Claims Costs

The impact of opioid use can be significant with respect to overall claims costs.

Figure 1: The Impact of Pain in Workers’ Compensation—Increased Claims Cost

The Opioid Epidemic

- Sales of opioid analgesics have quadrupled between 1999 and 2010
- Opioid use has increased from 96 mg morphine equivalents per person in the US in 1997 to 710 mg per person in 2010
- From 1997 to 2007 sales have increased dramatically:
  - Hydrocodone +280%
  - Oxycodone +866%
  - Methadone +1,293%
- Extended-release opioids increased 146% from 2002 to 2009
- Immediate-release opioids increased 42% during same time period
- Workers’ compensation claims involving Schedule II opioids add nearly $20,000 to cost of claim

Pain Physician 2012; 15:ES9-ES38 • ISSN 2150-1149
PMSI Cost Containment Approach
**PMSI Cost Containment Approach**

**PMSI’s multi-pronged approach to controlling drug costs and applying clinical expertise enables clients to better control overall pharmacy costs**

**Strategy**
- **Lowest effective drug cost**
  - Holistic approach to deliver the lowest possible effective unit cost to client
  - Gain visibility of total spend and drive spend in-network; approach all spend as controllable
  - Drive mail order when clinically appropriate
  - Ensure generic utilization
  - Offer highly competitive pricing

**Approach**
- **Proactive clinical management**
  - Integrated set of programs and tools to ensure clinically appropriate utilization of medication
  - Assesses population risk through predictive modeling tools to identify appropriate interventions
  - Customize pre-dispense controls to stop the dispensing of inappropriate medications at the point of sale
  - Identify drug therapy issues as they occur – escalate and intervene as necessary to prevent cost or risk escalation
  - Apply intensive clinical management to complex claims to achieve long-term cost control

**Superior cost containment**
- Lowest net pharmacy costs
- Lower claim reserves
- Lowest net medical costs
- Increased ability to settle claims
Tmesys – a retail network that is directly contracted and workers’ compensation specific

- Retail network of nearly 65,000 directly contracted pharmacies nationwide
- Owned and managed by PMSI
  - Direct relationships with pharmacies
  - Workers’ compensation focused
  - Facilitates regulatory flexibility
  - Enables ability to build unique partnerships
- Managed by PMSI's proprietary, proven electronic adjudication engine
- Governed by comprehensive credentialing process and ongoing network management
- Point-of-sale edits customizable by client
- Optional specialty networks comprised of:
  - StoneRiver
  - Physician Dispensers/Repackagers
  - Compounding Pharmacies
  - Occupational Health Clinics
  - Mail Order Providers
- Extensive use of jurisdictional tools
  - CA MPN or PBN
  - NY Direction of Care guidelines
- Integrated with TalisPoint geo-mapping software
- Supported by innovative Pharmacy Cards (mail, electronic, e-health ticket)
- Includes client customizable risk-free First Fill and Samaritan Dose programs
Mail Order Continues to Drive Cost Savings

- Average mail order cost per day of supply in 2012 was approximately 21% less than the average retail cost per day of supply.
- The rise in retail cost per day of supply continues to increase the average cost between retail and mail order since 2010, reaching 21% in 2011 and 2012.
**Lowest Effective Drug Cost – Mail Order**

PMSI’s workers’ compensation-specific mail order pharmacy program has been refined by years of experience—achieving 21.5% average book of business penetration rates, with some clients reaching 40%+

### Workers’ Compensation Industry Challenges

- **Ensuring appropriate candidate identification**
  - Custom workers’ compensation criteria that maximizes yield but ensures clinical appropriateness
    - Number of GPI iterations within the claims history
    - Minimum days since DOI
    - Minimum days spend
    - Minimum days to re-contact if refused
    - Minimum days of supply
    - Demographic factors (age, gender, language, etc.)
  - Promotion of mail order only for medications associated with chronic injuries

- **Driving recruitment and enrollment**
  - Team of 75 in-house employees focused on mail order
  - Data scrubbing programs to access appropriate phone numbers
  - Multiple outreach techniques including use of Silverlink state-of-the-art outreach technology
  - Injured worker education kits
  - Refill reminders as appropriate
  - Customized recruitment campaigns

- **Providing quick, reliable prescription delivery**
  - Coordination of care to ensure that injured workers receive their medications when needed
  - Partnership with Walgreens provides access to one of the country’s largest inventory of mail order medications
  - Expedited shipping as required
  - Dedicated customer assistance team

- **Ensuring safe and appropriate utilization**
  - Unified drug utilization review (DUR) program
  - Unified adjudication system (retail and mail order transactions)
  - Direct pharmacist interaction with physicians on selected prescriptions
  - Direct collaboration with prescribing physicians to address manufacturer back-order situations
  - 99.9% accuracy rate

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Brand vs. Generic Cost Differentials

- Average cost per day of supply of a generic medication was $2.83
  - 0.8% increase in the average cost per day of supply
- Approximately 75% less than the $11.09 cost per day of supply of a brand medication
  - 11.7% increase in the average cost per day of supply

Figure 1: Average cost per day of supply, brand vs. generic

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost per Day of Supply, Brand</th>
<th>Cost per Day of Supply, Generic</th>
<th>Average Cost Differential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>$9.04</td>
<td>$2.71</td>
<td>$9.93</td>
</tr>
<tr>
<td>2011</td>
<td>$9.93</td>
<td>$2.80</td>
<td>$7.13</td>
</tr>
<tr>
<td>2012</td>
<td>$11.09</td>
<td>$2.83</td>
<td>$8.26</td>
</tr>
</tbody>
</table>

Legend:
- Blue: Cost per Day of Supply, Brand
- Brown: Cost per Day of Supply, Generic
- Black: Average Cost Differential

Cost per Day of Supply, Generic

-7.0%

-7.2%

-7.5%
Increased Use of Generics in 2012

- Generic efficiency improved between 0.2 – 1.5 percentage points for all claim durations
- Generic dispensing improved between 2.2 – 5.8 percentage points during the same interval
PMSI has achieved high levels of generic efficiency and dispensing for our clients

**Generic Mandate**

- Substitution mandated
- Substitution mandated except where written statement of medical necessity, prior authorization or other requirement provided/met
- Substitution mandated except where prescriber notates DAW, DNS or similar
- Substitution not mandated

**PMSI Approach/Differentiators**

- PMSI institutes point of service controls to ensure generic medications are dispensed in generic-mandatory states when not restricted by the prescribing physician
- PMSI interacts with physicians and pharmacies directly without an intermediary – this is particularly helpful in cases of medication shortages
- PMSI contacts physicians who prescribe brand medications when a generic is available (e.g., DAW 1) – average conversion rate of 15%
- PMSI has an optional program to reach out to injured workers who request brand medications (e.g., DAW 2) – new program results TBD
- PMSI has an optional Step Therapy program to drive additional savings at point of sale – new program results TBD
- PMSI generic efficiency calculations do not exclude DAW1 and DAW2 transactions
Lowest Effective Drug Cost

Strong partnerships have the ability to produce tremendous results

<table>
<thead>
<tr>
<th>Metric</th>
<th>2012</th>
<th>2013 (YTD)</th>
<th># Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network penetration</td>
<td>84.0%</td>
<td>89.6%</td>
<td>5.6 points</td>
<td>6.7%</td>
</tr>
<tr>
<td>Mail order penetration</td>
<td>11.5%</td>
<td>11.4%</td>
<td>(0.1) points</td>
<td>(0.01)%</td>
</tr>
<tr>
<td>Generic dispensing</td>
<td>79.1%</td>
<td>81.0%</td>
<td>2.1 points</td>
<td>2.7%</td>
</tr>
<tr>
<td>Generic efficiency</td>
<td>96.2%</td>
<td>97.4%</td>
<td>1.2 points</td>
<td>1.2%</td>
</tr>
<tr>
<td>% Savings</td>
<td>31.2%</td>
<td>34.2%</td>
<td>3.0 points</td>
<td>9.6%</td>
</tr>
<tr>
<td>Average cost per day of therapy (total) – in- and out-of-network</td>
<td>$6.03</td>
<td>$6.29</td>
<td>$0.26</td>
<td>4.3%</td>
</tr>
<tr>
<td>Average cost per day of therapy (narcotics) – in-network</td>
<td>$8.41</td>
<td>$8.48</td>
<td>$0.07</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

= Minimal increases in spend metrics resulting from annual Average Wholesale Price (AWP) increases of 4% – 6%
Proactive Clinical Management – PMSI’s Predictive Modeling System

PMSI uses predictive modeling to power its entire clinical program

PMSI Investment

- Enterprise Data Warehouse containing more than 10 Million transactions
- 50 full-time associates – 30 for Clinical Services and 20 for Informatics
- $10M operating budget and $2M annual CAPEX budget
- State of the art MicroStrategy reporting package
- Guided by physician advisors and other clinical experts
Proactive Clinical Management – PMSI MedAssess™ Overview

PMSI’s MedAssess program is differentiated from programs offered by other PBMs

PMSI Differentiators

- Largest workers’ compensation-focused clinical team in the industry
- Most “live” experience specific to workers’ compensation
  - More than 3,500 medication reviews
  - More than 2,500 peer reviews
  - More than 500,000 targeted interventions
- First to market with many of our clinical offerings
- Recipient of numerous industry awards and recognitions
- Clinical programs can be integrated with client infrastructure and preferred partners
- Dedicated clinical liaisons who design customized programs – do much more than deliver reports
- Integrated analytic platform (Risk IS) that is state of the art
- Active clinical management, not just clinical monitoring
Proactive Clinical Management – Population Risk Scorecard

The Population Risk Scorecard assesses a client’s risk profile to design a customized clinical program

- Proprietary Population Risk Scorecard assesses the client’s risk of waste, fraud, or abuse in overall claim base
  - Benchmark health outcomes and drug costs against industry averages
  - Recommends clinical programs to mitigate risks and enable customization for clients
  - Includes analysis of 18 workers’ compensation-specific clinical criteria

- Population Risk Scorecard used throughout client relationship
  - At outset for PMSI and client to understand unique risk factors of claim base and develop customized solutions
  - Every six months thereafter to monitor client’s reduction of risk and cost

- PMSI recognized by industry for Population Risk Scorecard
  - 2013 Innovation Award by Business Insurance magazine
  - 2012 Industry Innovator Award from The Institute of HealthCare Consumerism

**Population Risk Score**

![Population Risk Score Chart]

- **Low Risk / High Cost**
- **Moderate Risk / High Cost**
- **High Risk / High Cost**

**Average Claim Cost**

- **Low Risk / Low Cost**
- **Moderate Risk / Low Cost**
- **High Risk / Low Cost**

**Medication Risk Score**

*Medication Risk is defined as the risk of medication-related poor health outcomes*

**Population Risk Overview**

<table>
<thead>
<tr>
<th>Population Criteria</th>
<th>[Client Name]</th>
<th>PMSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population studied</td>
<td>2715</td>
<td>633</td>
</tr>
<tr>
<td>Average age of claim (in years)</td>
<td>16.6</td>
<td>-</td>
</tr>
<tr>
<td>Average spend per injured worker per month</td>
<td>566.58</td>
<td>394.92</td>
</tr>
<tr>
<td>Population risk score</td>
<td>130</td>
<td>95</td>
</tr>
</tbody>
</table>

**Population Risk Criteria and Intervention Recommendations**

<table>
<thead>
<tr>
<th>Medication Risk Criteria</th>
<th>[Client Name]</th>
<th>PMSI</th>
<th>Recommendations for Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of medications not typical for treatment of workers' compensation claims</td>
<td>15.9%</td>
<td>15.3%</td>
<td>+ Medication Review + Medication Review with Peer-to-Peer Outreach</td>
</tr>
<tr>
<td>Use of medications from 5 or more therapeutic classes</td>
<td>17.4%</td>
<td>11.4%</td>
<td>+ Medication Review + Medication Review with Peer-to-Peer Outreach + High-Risk Refiling Service</td>
</tr>
<tr>
<td>Use of multiple prescribers for narcotic analgesics</td>
<td>15.2%</td>
<td>10.7%</td>
<td>+ Multiple Prescriber of Narcotics Service + Medication Review + Medication Review with Peer-to-Peer Outreach + Drug Testing and Monitoring</td>
</tr>
</tbody>
</table>

**Lowest Effective Drug Cost + Proactive Clinical Management = Superior Client Outcomes**
Proactive Clinical Management – MedAssess Pre-Dispense Controls

**Triggers**
- High-risk drug therapy
- Contraindications
- Use of compounds
- Use of non-formulary drugs
- Use of high-cost, brand-name medications
- Use of second- or third-line medications
- Prescriber restrictions
- Refill too soon
- Price caps

**Controls Notify:**
- Pharmacist
- Claims Professional

**Pre-Dispense Controls**
Programs that review and manage appropriateness and utilization, starting during the early stages of injury and throughout the life of the claim

**Drug Utilization Review (DUR)**
- Reviews clinical safety criteria and administrative thresholds
  - Approximately 20% of prescriptions do not pass DUR edits

**Drug Formulary**
- Checks for relatedness to a workers’ compensation injury
  - 14.5% of prescriptions are not on formulary

**Generic Substitution**
- Enforces substitution to generic medication if allowed by state and physician
  - Generic dispensing rate of 70% and generic efficiency rate of 96%

**Prior Authorization**
- Requires approval to dispense prescriptions that did not pass the clinical and administrative edits
  - Average savings of $150 per prescription

**Step Therapy**
- Encourages the initial use of a first-line or generic drug

**INJURY**
**SETTLEMENT**

> 2 Year

Approximately 20% of prescriptions do not pass DUR edits

14.5% of prescriptions are not on formulary

Generic dispensing rate of 70% and generic efficiency rate of 96%

Average savings of $150 per prescription
Proactive Clinical Management – MedAssess Claims Escalation

**Triggers**
- High-risk drug therapy
- Duplication of therapy classes
- Use of multiple prescribers for narcotics/opioids
- Use of high-cost, brand-name medications
- Excessive duration or dose of therapy
- DAW 1/DAW 2

**INJURY**

<table>
<thead>
<tr>
<th>3 Month</th>
<th>6 Month</th>
<th>&gt; 2 Year</th>
</tr>
</thead>
</table>

**Claims Escalation**
- Programs that address high-risk or high-cost therapy in injured individuals
  - **Clinical Escalation Alert**
    - Uses best practice guidelines and evidence-based medicine to signify a high-risk change in therapy or utilization that requires follow-up
  - **High-Risk Profiling**
    - Triages high-risk claims and intervenes to address concerns
  - **Multiple Prescriber Service**
    - Identifies and intervenes when opioids are being prescribed by more than one physician
  - **Generic Conversion**
    - Identifies and intervenes on opportunities for conversion to lower-cost generic medications

**SETTLEMENT**
- 43% success rate in resolving these therapeutic issues, resulting in an average annual savings of $1,200 – $1,400 per successful intervention
- 91% success in converting to a single opioid prescriber and 19% – 21% reduction in medication spend for impacted claimants
- Acts on 7% – 15% of all prescriptions, with an average savings of $191

$4M in program savings since inception

Lowest Effective Drug Cost + Proactive Clinical Management = Superior Client Outcomes

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Proactive Clinical Management – MedAssess Intensive Intervention

INJURY

Triggers
- Predictive modeling identifies concerns
- Continued use of high-risk therapy despite prior outreach programs
- Breach of clinical guidelines
- Excessive duration or dose of therapy
- Heavy opioid use
- Suspicions of inappropriate drug use, dependence or addiction

Intervention Requires Action by:
- Claims
- Professional
- Physician

SETTLEMENT

6 Month

Intensive Intervention
Programs that address chronic and complex cases that have continued the use of high-risk and high-cost therapy

Medication Review
- Review and Analysis
  - In depth evaluation of an injured worker’s medication and medical record
- Peer-to-Peer Outreach
  - Collaboration with prescriber to discuss identified issues and recommendations for resolution
- Nurse Progress Monitoring
  - Ongoing follow-up by clinical nurse after peer outreach to drive successful intervention

Drug Testing and Monitoring
- Identifies candidates and coordinates drug testing and monitoring to facilitate compliance with care plan

> 2 Year

64% of cases intervened upon resulted in therapeutic changes
- Average savings of 18% – 23% in total drug spend realized 180 days post intervention
- 7:1 return on investment realized by clients using PMSI’s Peer-to-Peer service

Lowest Effective Drug Cost + Proactive Clinical Management = Superior Client Outcomes
2011 vs. 2012 Changes in Average Spend

- Average spend per injured worker was flat compared to 2011
- Driven by an increase in average cost per day of supply of 2.8%
- Offset by a 2.7% decrease in average days of supply per injured worker

Figure 1: Percentage Change in 2012 Pharmacy Spend
Changes in Narcotic Utilization

- Utilization of narcotic analgesics decreased 0.2% from 2011 to 2012, while NSAIDs’ utilization increased 0.8% from 2011.
- Shift to less-expensive generic NSAIDs as first-line anti-inflammatory medications

**Figure 11: Changes in Utilization of Narcotics and NSAIDs, 2011 vs. 2012**

- 2011: 34.1% Narcotic Analgesics, 11.5% NSAIDs, Other
- 2012: 33.9% Narcotic Analgesics, 12.3% NSAIDs, Other
Narcotic utilization per injured worker decreased 3.2%, as evidenced by the decrease in the daily morphine equivalent dose (MED) in 2012.

Additionally, the use of narcotics within the first year of injury declined 7%.
Why PMSI?
# Why PMSI? – Key Differentiators

**PMSI's key differentiators help us to build unique programs for our clients**

## PMSI Differentiators

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Value to Client</th>
</tr>
</thead>
</table>
| 1 | **A culture of innovation and service** – delivers high levels of customization and customer satisfaction | ■ Customized program design  
■ High injured worker satisfaction  
■ State-of-the-art program |
| 2 | **High levels of network penetration** – driven by direct network management, collaborative relationships with key partners and innovative out-of-network solutions | ■ 90%+ network penetration  
■ No risk of network disruption  
■ Broad access for injured workers |
| 3 | **Industry-leading mail order penetration rates** – driven by a workers’ compensation-specific program and a strong focus on customer/injured worker collaboration and service | ■ 20%+ mail order penetration  
■ High injured worker satisfaction  
■ Customizable by client /employer |
| 4 | **Clinically based, data-driven program** – focuses on prospective, concurrent and retrospective approaches to utilization control, targeted intervention and care management | ■ Evidence-based guidelines  
■ Workers’ compensation-specific expertise  
■ Customizable at all levels to easily integrate with clients’ infrastructures |
| 5 | **Comprehensive reporting and real-time claims management tools** – enables insight into key cost and utilization issues early in the claims lifecycle | ■ Deep understanding of cost and utilization  
■ Convenience for program stakeholders and participants  
■ Reduced administrative burden |
Why PMSI? – Extensive Experience

PMSI’s experience gives us the capabilities needed to serve our clients

- Unique network approach that maximizes penetration and provides control and stability
- Proactive, aggressive clinical intervention program tailored to fit our clients needs
- Client-centric account engagement that touches all points of the program
- Highly adaptable and streamlined implementation program
- Best in class clinically managed mail order program
- State-of-the-art technology and reporting tools that are designed for ease of use
- Client relationship is a “partnership” rather than a business transaction
- Experience in implementing TPAs and delivering a market-differentiated program
Questions and Answers
PMSI—THE ONLY SOLUTION YOU NEED

Founded in 1976, PMSI is a leader in developing solutions to control the growth of medical costs in workers’ compensation while achieving maximum health outcomes. As one of the nation’s largest and most experienced companies focused solely on workers’ compensation, we deliver proven solutions for injured worker care across the claims lifecycle. PMSI’s Pharmacy, Critical Care, and Settlement Solutions products deliver quantifiable results and improve the quality of care for injured workers. We provide our customers with the innovation, focus, expertise, analytics and technology needed to successfully and cost effectively deliver workers’ compensation benefits.

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