2014 Annual Issues Symposium

How Affordable Is the Affordable Care Act for Workers Compensation?

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The Health Insurance Reform Puzzle
Economic Trade-Offs Are Unavoidable

- Three Attractive Features of Health Insurance:
  - Universal Coverage (and Comprehensive)
  - Open Networks and Pay for Procedure
  - Affordable

- The Puzzle: Choosing Any Two Excludes the Third

- ACA Chooses: Universal Coverage + Affordability
  - Affordable means no net subsidies in the long-term
  - Premium subsidies to be balanced by fees and cost savings

- ACA Therefore Has to Deliver: Cost Control
  - Key elements: Narrow networks and Pay for Performance
Economic Observations
The ACA Is About Cost-Effective Healthcare

- Cost control is critical to expanded coverage: Medicaid and individual health insurance
- Without cost control, expanded coverage is not affordable

- The ACA intends to realize potentially revolutionary changes to healthcare delivery:
  - Insurers focus on health management rather than selective underwriting
  - Changes in payment relations among providers
  - Initiatives to promote effect-based medicine
The ACA Is Not “About” WC ... Directly But Indirect Effects Matter

- The ACA directly impacts Medicaid, Medicare, individual, and group health markets
  - Workers comp is a separate enclave, but ...
  - As broader health insurance markets change, can workers comp not change?

- How the ACA may indirectly impact WC:
  - Claim- and cost-shifting reflect fee differentials
  - WC fee schedules are often Medicare-based
  - Blurring the distinction between occupational medicine and general wellness
The Affordable Care Act and Workers Comp
Three Frequently Asked Questions

How will the ACA impact WC via:

- Availability and cost of primary care services?
- Population wellness and comorbidities?
  - Hypertension
  - Drug abuse (for example, opioids)
  - Obesity and diabetes
- Cost-effective medicine?
  - For example, the choice of surgery versus nonsurgery
  - ICD-9s with significant but variable rates of surgery:
    - Rotator cuff sprain, lumbar disc displacement, carpal tunnel syndrome
The Affordable Care Act and Workers Comp
Three Frequently Asked Questions

- NCCI’s research has **something** to say about:
  - Availability and cost of primary care services
  - Population wellness and comorbidities

- Our presentation today has **more** to say about:
  - Cost-effective medicine and WC

- Our Theme: States differ dramatically in medical treatment and paid loss for common diagnoses
  - Why? Is all this variation cost-effective?
NCCI’s Research on the ACA
Ground Rules for Today, Agenda for the Future

- Ground rules for NCCI’s research to date:
  - Medical Payments only—Medical Data Call (MDC)
  - Accident years 2012, 2011, 2010 (2nd half of year)
    - Focus on accident years 2012 and 2011
    - Latest reported transactions as of 1st quarter, 2013:
      All claims are included, but not all have reached maturity
    - Transaction histories are aggregated up to claim level

- Future research can go further:
  - Time profiles of medical treatment
  - Differentiate service provider types and venues
  - Integrate complementary data sources:
    - *Statistical Plan* data, demographic data, indemnity payments
Primary Care Availability
Medicaid Expansion and Regional Shortages

- Demand Driver: The ACA creates new demand for primary care
  - Particularly via Medicaid expansion
  - But many states did not expand Medicaid

- Supply Driver: Regional variation in the supply of medical resources
  - Intrastate vs. Interstate: Urban vs. Rural
  - This is not an ACA issue *per se*

- Stress is *most likely* in medically underserved regions with high uninsured levels
Medicaid Expansion
ACA-Blue and ACA-Red States

ACA-Blue: AR AZ CO CT DC HI IA IL KY MD NH NM NV OR RI VT WV CA DE MA MI MN ND NJ NY OH WA
ACA-Red: AK AL FL GA ID KS LA ME MS MT NC NE OK SC SD TN TX WI WY
ACA-Purple: MO UT VA IN PA
Medicaid Expansion
ACA-Blue and ACA-Red States

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ACA-Purple: MO UT VA IN PA

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Florida

- Left panel shows physician scarcity areas (2006)
- Right panel overlays percentage of population without health insurance (2008–2012)
- Left panel shows status quo pre-ACA; right panel adds (potential) new enrollees

Physician data from Dartmouth Atlas of Healthcare; Uninsured data from US Census Bureau
Regions of physician scarcity are typically rural areas
Medically uninsured population percentage is higher in low-income regions
Uninsured population shares are generally highest in southern and western states
Medicaid expansion affects low-income households

Physician data from Dartmouth Atlas of Healthcare; Uninsured data from US Census Bureau
- Regions of physician shortage can be close to centers of physician availability
- Proximity to care may be a more relevant metric than local availability of care
- Proximity also matters to the distinction between immediate and ongoing treatment

Physician data from Dartmouth Atlas of Healthcare; Uninsured data from US Census Bureau
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Cost-Effective Medicine and Workers Comp: What Drives Interstate Variation in Medical Claims?
State Variation in Medical Treatment and Expense
Is WC Cost-Effective Across States?

- Do some states perform major surgery more often than others?
- Which states are medically more expensive on a per-claim/per-treatment basis?
- Are medically expensive states also inclined to opt for major surgery more frequently?
- How big are these variations?
- What explains them?
State Variation in Medical Treatment and Expense
Clustering WC Medical Claims By Diagnosis

Our approach: Compare WC medical treatment and expense across states for diagnoses having similar treatment profiles

- 5,000–8,000 primary ICD-9s per state per year
- Top 28 ICD-9s account for roughly 40% of paid loss
- Top 28 ICD-9s are consistent for all state-years
  - Often 100s or 1000s of claims for each ICD-9 in each state-year
- Claims with other ICD-9s are collectively important
  - But individually sparse across state-years, especially small states
State Variation in Medical Treatment and Expense
Clustering WC Medical Claims By Diagnosis

Top 28 ICD-9s → 3 treatment classes

- **Variable Major Surgery** 13 ICD-9s
  - Significant, but variable frequency of major surgery
  - Examples: Rotator cuff sprain & syndrome, lumbar & cervical discs & disorders, tear of knee meniscus & cartilage, carpal tunnel syndrome

- **Sprains and Similar** 9 ICD-9s
  - Major surgery rare (1%–7%); variable physical therapy
  - Examples: Sprains of neck, shoulder, knee, leg, ankle, thoracic or lumbosacral; lumbago

- **Other Diagnoses** 6 ICD-9s
  - Examples: Inguinal hernia, finger wounds, “other unspec”
Major Surgery Freq vs. Avg Paid Loss per Claim
2012 Accident Year

Each data point represents a distinct state for accident year 2012

- Left Y-axis: Frequency Major Surgery: Mean over VMS ICD-9s
- X-axis: Paid Loss | Major Surgery: Mean over VMS ICD-9s
- Right Y-axis: Paid Loss | No Major Surgery: Mean over Sprain ICD-9s

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Major Surgery Freq vs. Avg Paid Loss per Claim
2011 Accident Year

- Frequency of Major Surgery varies up to 15 percentage points across states
- Significant dispersion in Avg. Paid Loss in both VMS and Sprain ICD-9 groups
- Avg Paid Loss | Major Surgery: VMS increases 8x to 10x compared to 2012
- Avg Paid Loss | No Major Surgery: Sprain stays bracketed within $500–$2,500
Big Difference Across States
In Both Major Surgery Freq & Avg Paid Loss per Claim

<table>
<thead>
<tr>
<th></th>
<th>ICD-9 Group</th>
<th>Accident Year</th>
<th>10th Lowest State</th>
<th>10th Highest State</th>
<th>Δ</th>
<th>Δ (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Less Development</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Avg Frequency of Major Surgery</td>
<td>Var Maj Surg</td>
<td>2012</td>
<td>35.8%</td>
<td>43.5%</td>
<td>7.7 pts</td>
<td>22%</td>
</tr>
<tr>
<td>Avg Paid given Major Surgery</td>
<td>Var Maj Surg</td>
<td>2012</td>
<td>$2,694</td>
<td>$3,632</td>
<td>$938</td>
<td>35%</td>
</tr>
<tr>
<td>Avg Paid given No Major Surgery</td>
<td>Sprain</td>
<td>2012</td>
<td>$991</td>
<td>$1,417</td>
<td>$426</td>
<td>43%</td>
</tr>
<tr>
<td><strong>More Development</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Avg Frequency of Major Surgery</td>
<td>Var Maj Surg</td>
<td>2011</td>
<td>42.3%</td>
<td>49.2%</td>
<td>6.9 pts</td>
<td>16%</td>
</tr>
<tr>
<td>Avg Paid given Major Surgery</td>
<td>Var Maj Surg</td>
<td>2011</td>
<td>$17,843</td>
<td>$24,990</td>
<td>$7,147</td>
<td>40%</td>
</tr>
<tr>
<td>Avg Paid given No Major Surgery</td>
<td>Sprain</td>
<td>2011</td>
<td>$1,015</td>
<td>$1,396</td>
<td>$381</td>
<td>38%</td>
</tr>
</tbody>
</table>

✓ Span of 10th lowest to 10th highest captures middle 50% of 37 states
✓ Significant medical development AY 2012 → AY 2011 for VMS group
✓ Negligible medical development AY 2012 → AY 2011 for Sprain group
✓ Surgery frequency increases AY 2012 → AY 2011, but interstate dispersion persists
✓ At AY 2011, Avg Med Paid for VMS Surgery ≈ 17x Sprain No Surgery
The left panel shows the quartile distribution of paid loss per claim across payment categories. The center & right panels split this distribution across claims w/o and w/ major surgery, respectively. The left distribution for all claims is the mixture of the other two distributions. Claims w/o major surgery: lower 50% of paid loss. Claims w/ major surgery: upper 75% of paid loss.
840.4 Rotator Cuff Sprain—MO & KY

MO 2011 840.4

MO 2011 840.4: No Major Surgery

MO 2011 840.4: Major Surgery

KY 2011 840.4

KY 2011 840.4: No Major Surgery

KY 2011 840.4: Major Surgery

Avg: $3,726

Avg: $38,380

Avg: $2,623

Avg: $23,927
840.4 Rotator Cuff Sprain—IL & CO

IL 2011 840.4
Avg: $4,662

IL 2011 840.4: No Major Surgery
Avg: $47,400

IL 2011 840.4: Major Surgery
Avg: $2,815

CO 2011 840.4
Avg: $29,017

CO 2011 840.4: No Major Surgery
Avg: $2,815

CO 2011 840.4: Major Surgery
Avg: $29,017
Scenarios for Medical Expense Reduction

For each VMS ICD-9, reduce state frequency of major surgery to 75th percentile if above that level.

- Leave unchanged the state’s actual average paid loss with and without major surgery.
- The chart shows aggregate % reduction in state paid loss over all ICD-9s in the VMS group.
Scenarios for Medical Expense Reduction

For each VMS ICD-9, reduce the state average paid loss to 75th percentile if above that level

- Expense reduction to 75th percentile applies to claims both with and without major surgery
- Leave unchanged the state’s frequency of major surgery
- The chart shows aggregate % reduction in state paid loss over all ICD-9s in the VMS group
Some Preliminary Takeaways

- Some states are expensive. Some like surgery.
  - Both treatment patterns and cost of treatment per claim vary significantly across states
  - Frequency of surgery appears to be independent of relative expense for surgery versus nonsurgery

- 4th (highest) quartile claims are a big driver of overall average paid loss
  - What drives paid loss in 4th quartile claims?
    - Variable Major Surgery ICD-9s: Surgery
    - Sprain Group of ICD-9s: Diagnostics & Physical Medicine
    - Drugs are not a major expense driver for either group
Some Preliminary Takeaways

- **1st (lowest) quartile claims are quite inexpensive**
  - $1,000–$2,000 VMS group; $100–$300 Sprain group

- **For 2nd and 3rd (middle) quartile claims, paid losses scale up by roughly the same % across all treatment categories**

- **Major surgery costs much more than non-surgery in ICD-9s where both are prevalent**
  - Rotator Cuff Sprain for all 37 states:
    - Avg Med Paid | Surgery $\approx 9 \times$ Avg Med Paid | No Surgery
  - In claims where non-surgical alternatives are medically effective, significant expense reduction is possible
Cost Effective Medicine and WC State Initiatives

- Medical Fee Schedules (Example: Texas)
  - Can serve to differentiate costs, particularly surgery costs and facility costs

- Treatment Guidelines (Example: Colorado)
  - Evidence-based treatment with presumption of correctness

- Closed Formularies (Example: Texas)
  - Control utilization of opioids

- Treating Physician Choice, Narrow Networks
  - Employer choice and/or networks can significantly reduce costs
What is the Big Question?

- How Affordable is the ACA for Workers Comp?
  - Short-term effects on physician availability are regional, and depend on Medicaid expansion
  - Long-term wellness and cost-control initiatives sound promising, but execution will be tough
  - Meanwhile, cost-effectiveness looks like a big challenge for WC independently of the ACA

- Perhaps the big question is:
  How Affordable is Workers Comp?