



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 1<sup>st</sup> 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



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# The ACA and Availability of Primary Care Services

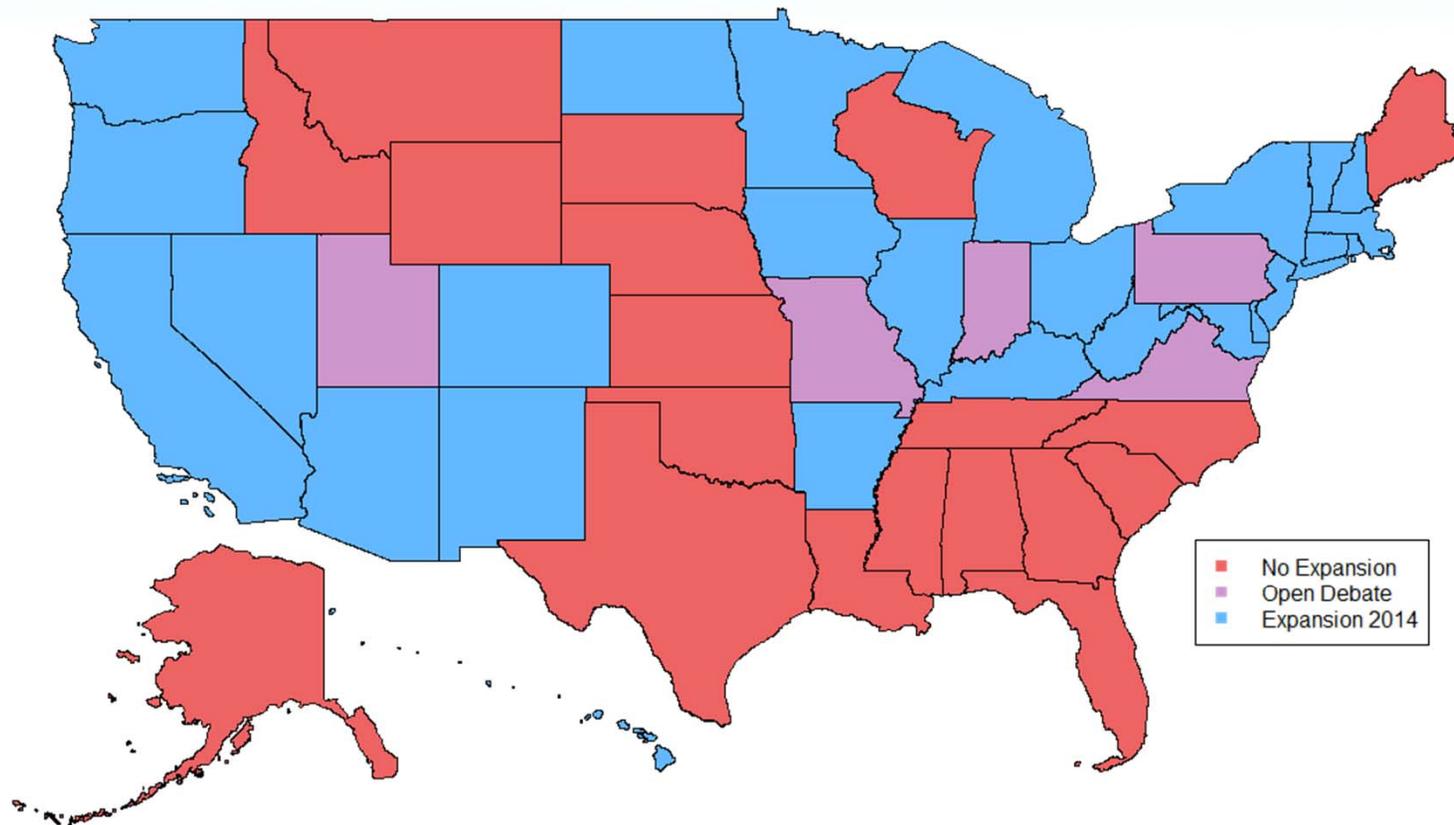


# Primary Care Availability

## 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

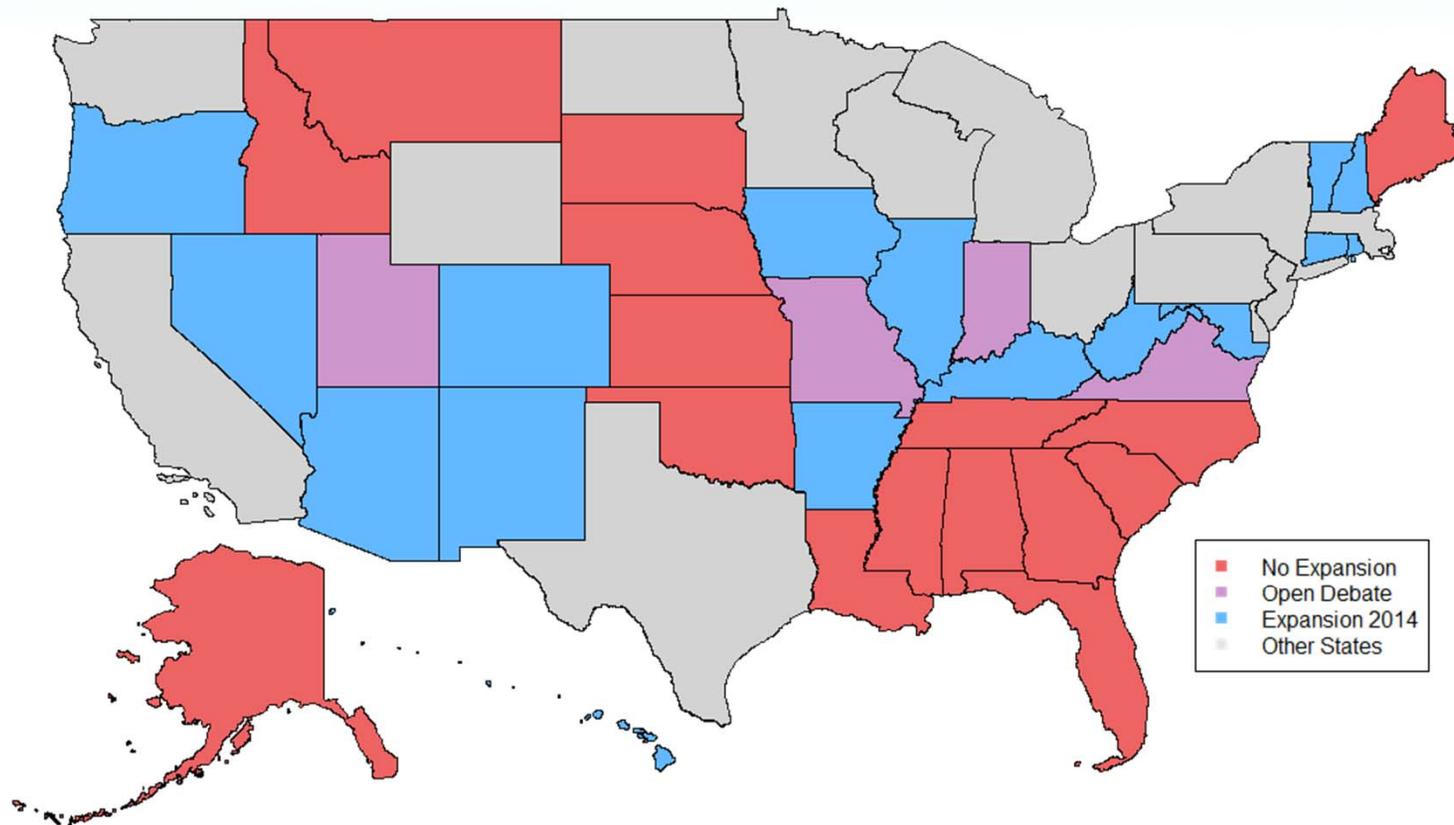


ACA-Blue: AR AZ CO CT DC HI IA IL KY MD NH NM NV OR RI VT WV CA DE MA MI MN ND NJ NY OH WA

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

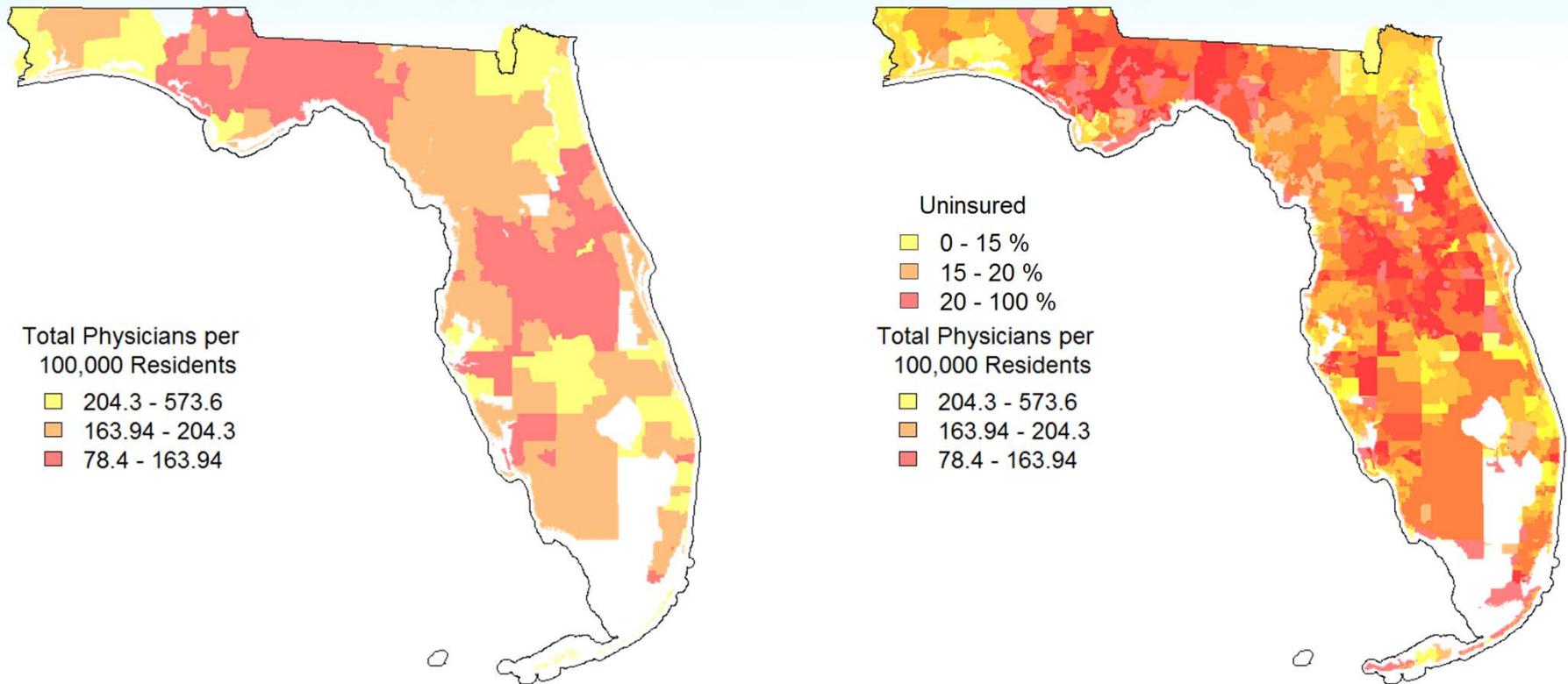


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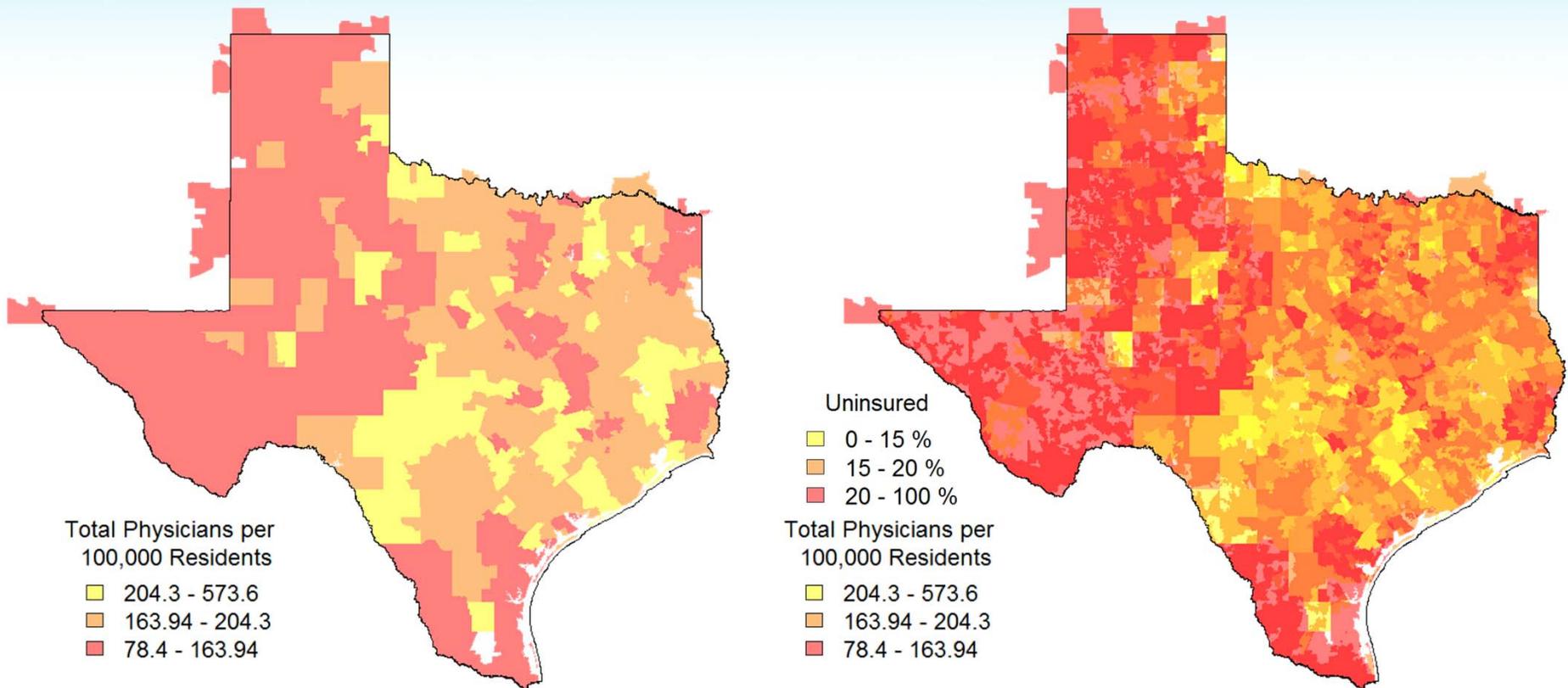
# Florida



- 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

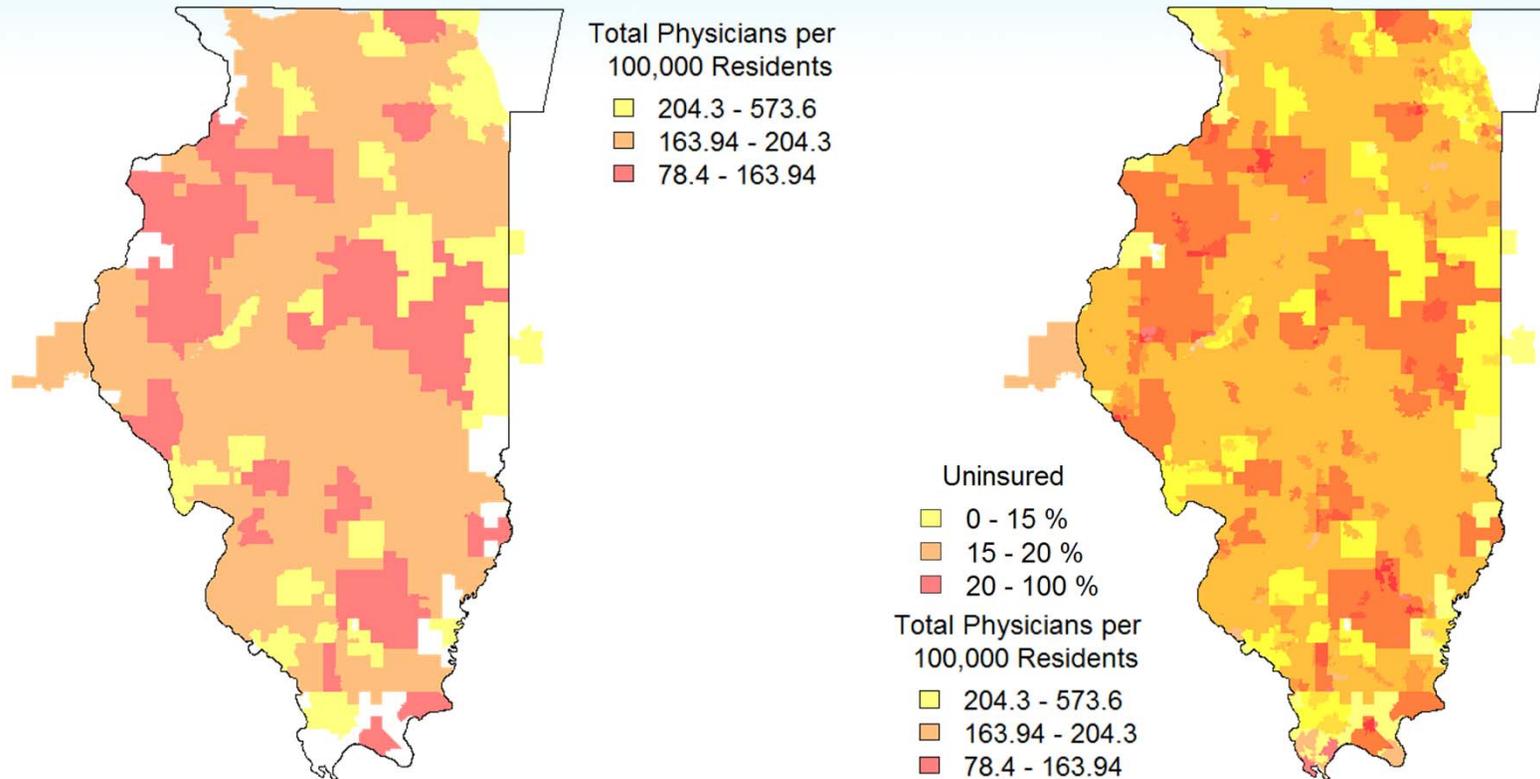
# Texas



- 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

# Illinois



- 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

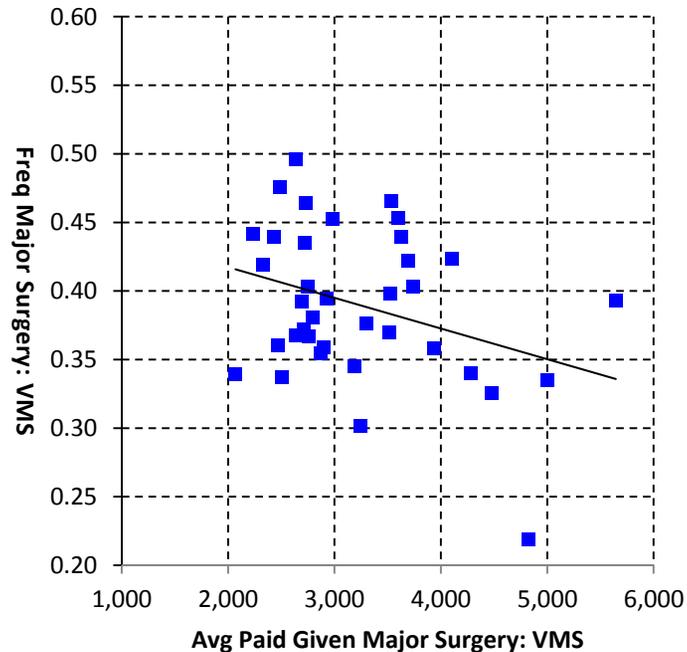
## Clustering WC Medical Claims By Diagnosis

Top 28 ICD-9s → 3 treatment classes

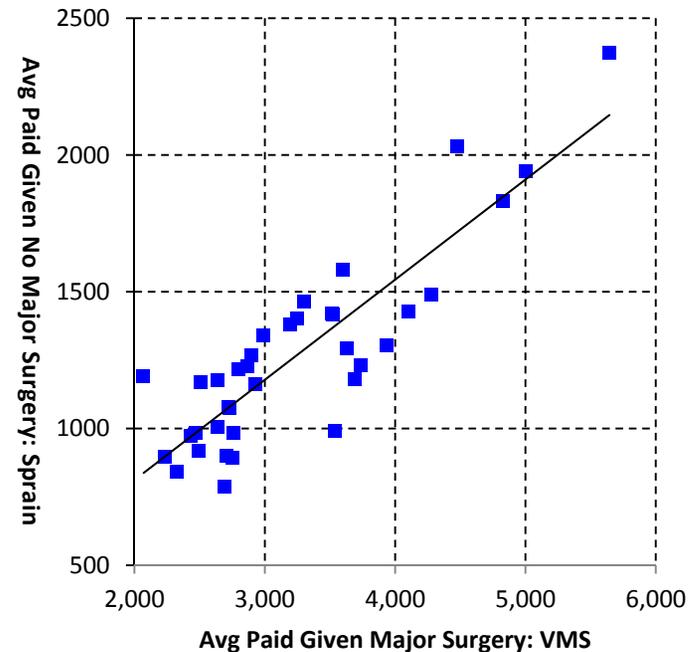
- **Variable Major Surgery**                      13 ICD-9s
  - Significant, but variable frequency of major surgery
  - Examples: Rotator cuff sprain & syndrome, lumbar & cervical discs & disorders, tear of knee meniscus & cartilage, carpal tunnel syndrome
- **Sprains and Similar**                 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

Freq Maj Surg vs. Avg Paid Maj Surg  
2012



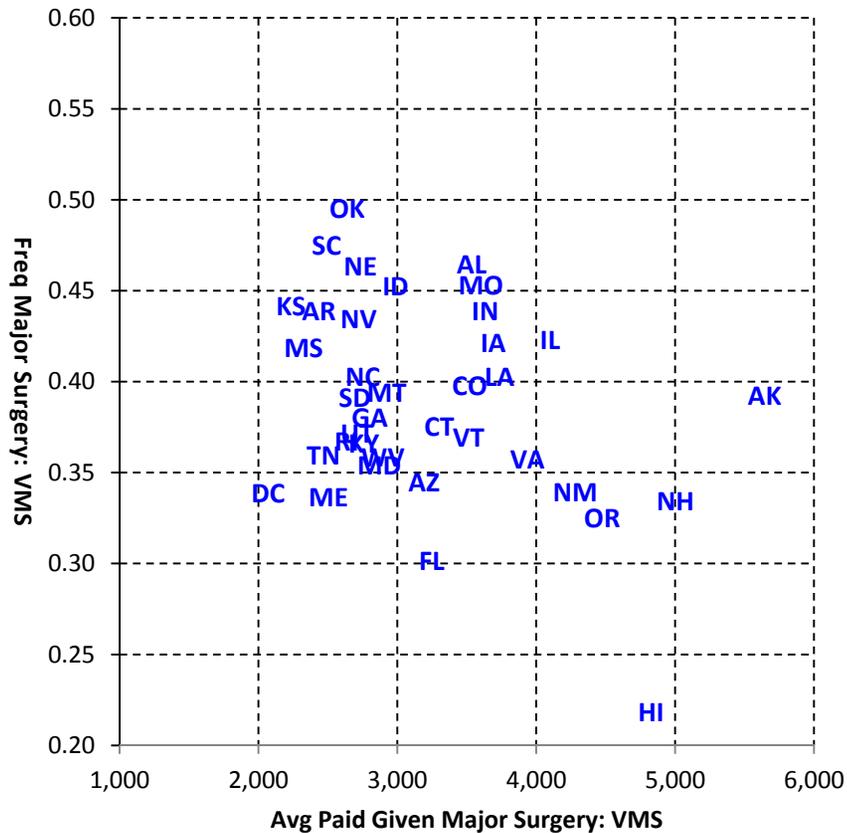
Avg Paid No Maj Surg vs. Avg Paid Maj Surg  
2012



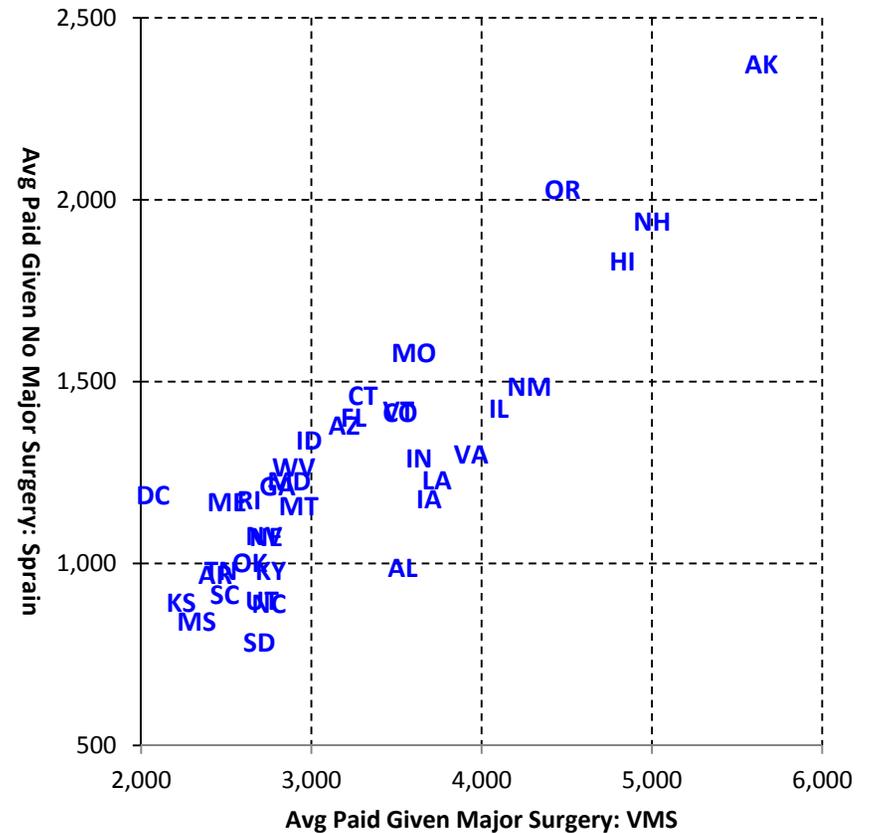
- ✓ Each data point represents a distinct state for accident year 2012
- ✓ Left Y-axis: Frequency Major Surgery: Mean over VMS ICD-9s
- ✓ X-axis: Paid Loss | Major Surgery: Mean over VMS ICD-9s
- ✓ Right Y-axis: Paid Loss | No Major Surgery: Mean over Sprain ICD-9s

# Major Surgery Freq vs. Avg Paid Loss per Claim 2012 Accident Year

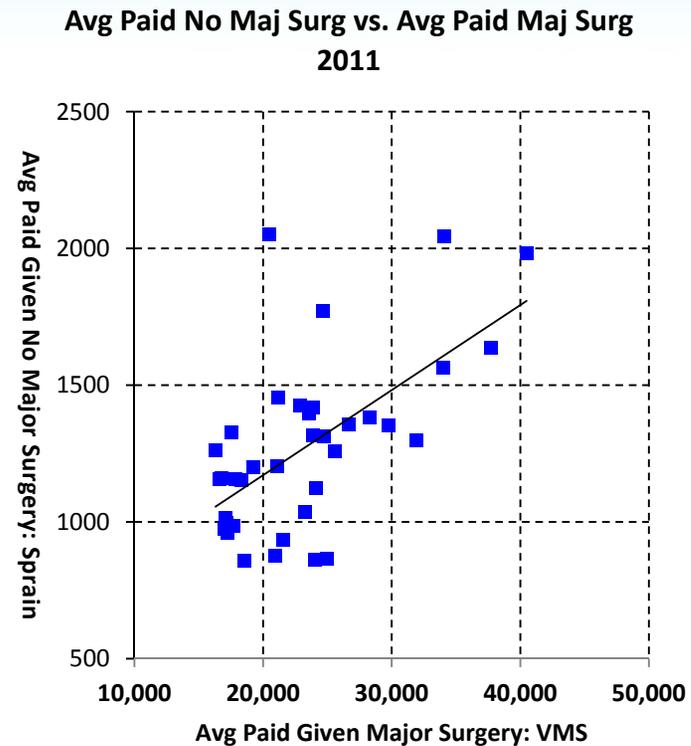
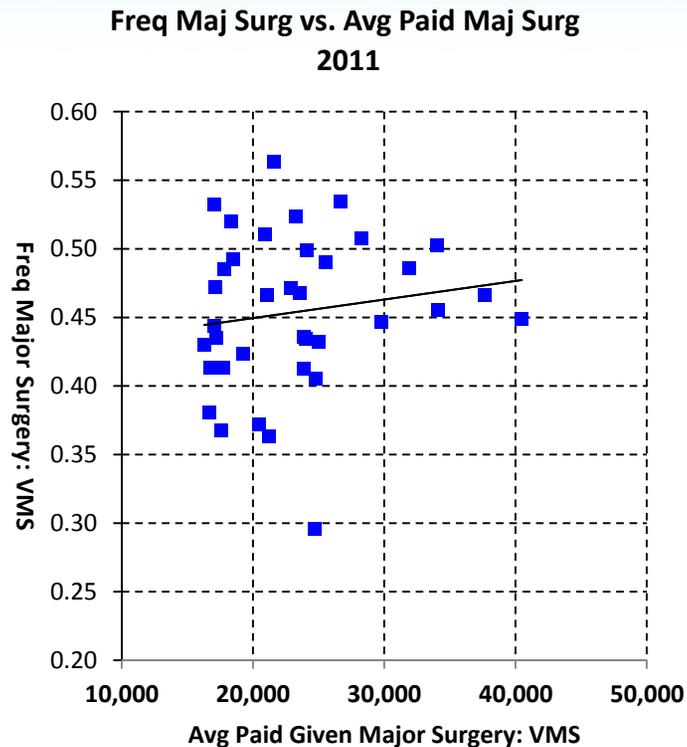
Freq Maj Surg vs. Avg Paid Maj Surg  
2012



Avg Paid No Maj Surg vs. Avg Paid Maj Surg  
2012



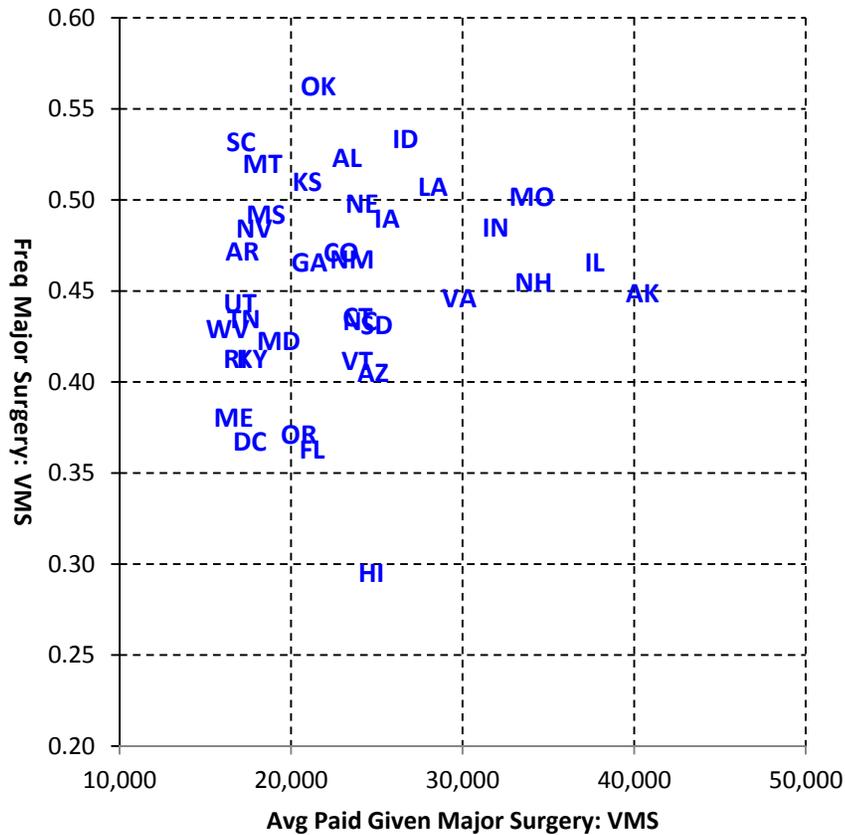
# Major Surgery Freq vs. Avg Paid Loss per Claim 2011 Accident Year



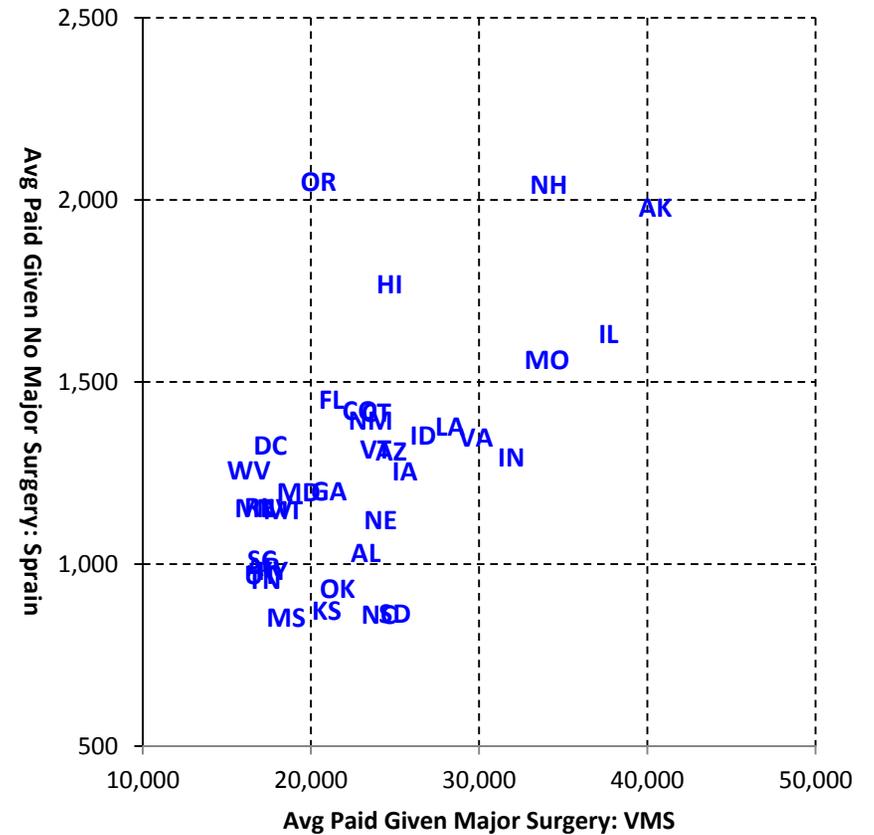
- ✓ Frequency of Major Surgery varies up to 15 percentage points across states
- ✓ Significant dispersion in Avg. Paid Loss in both VMS and Sprain ICD-9 groups
- ✓ Avg Paid Loss | Major Surgery: VMS increases 8x to 10x compared to 2012
- ✓ Avg Paid Loss | No Major Surgery: Sprain stays bracketed w/in \$500–\$2,500

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

Freq Maj Surg vs. Avg Paid Maj Surg  
2011



Avg Paid No Maj Surg vs. Avg Paid Maj Surg  
2011



# Big Difference Across States

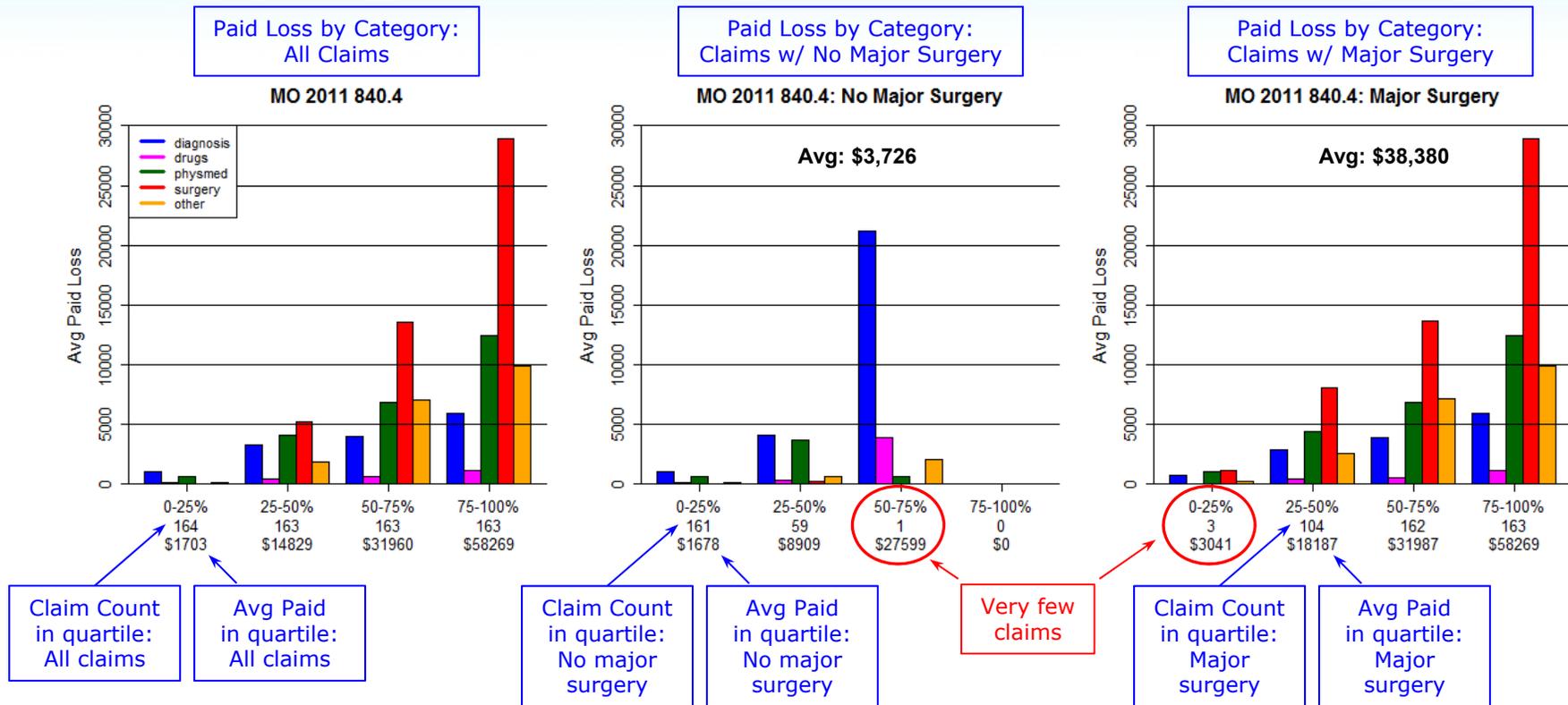
## In Both Major Surgery Freq & Avg Paid Loss per Claim

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

- ✓ 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

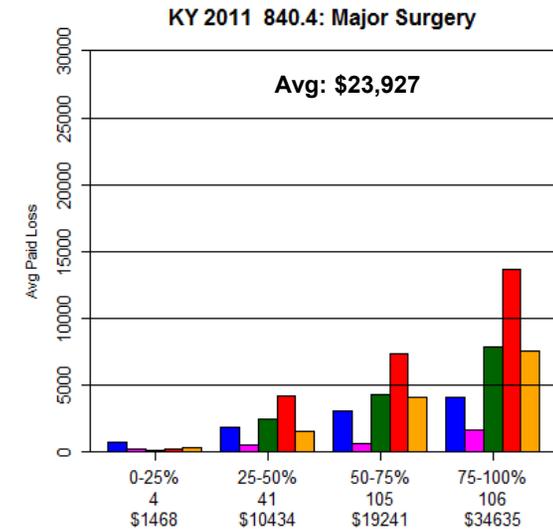
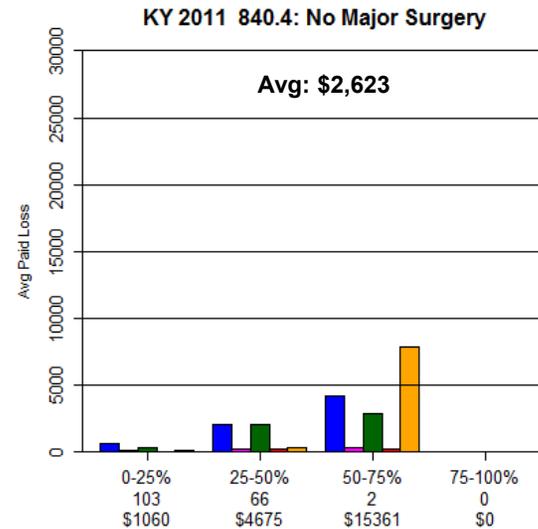
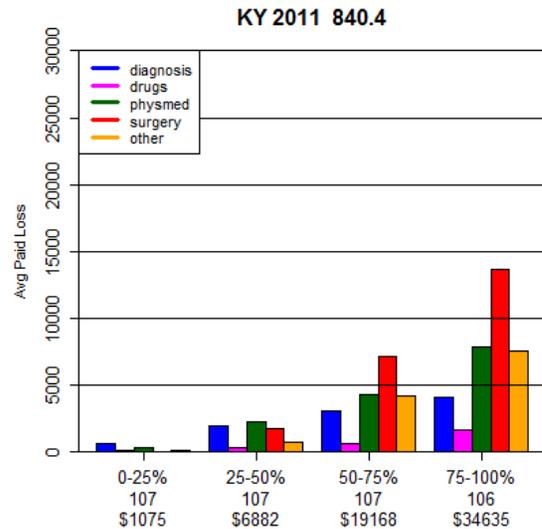
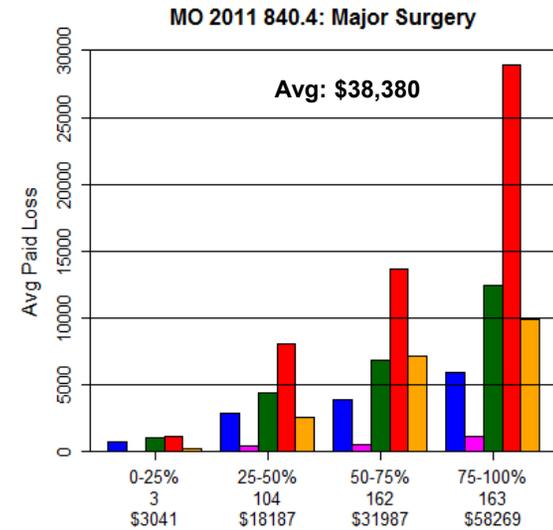
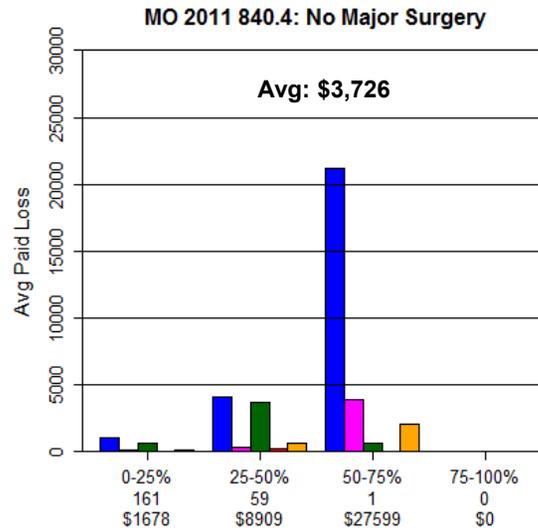
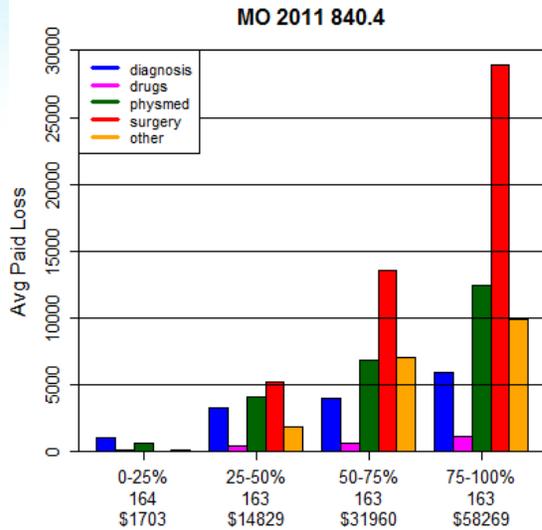
# Patterns of Paid Loss By Type of Treatment

## 840.4 Rotator Cuff Sprain – MO 2011

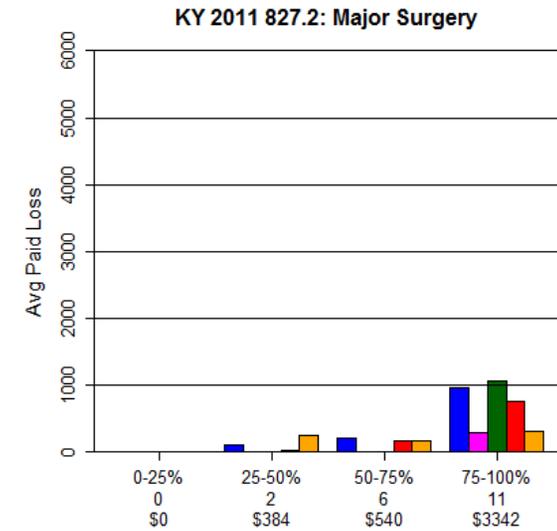
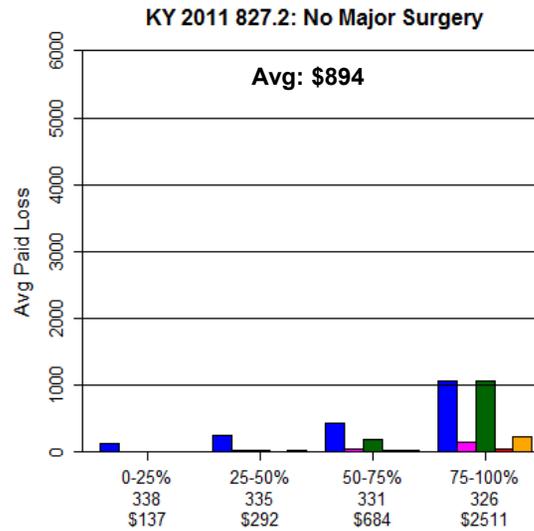
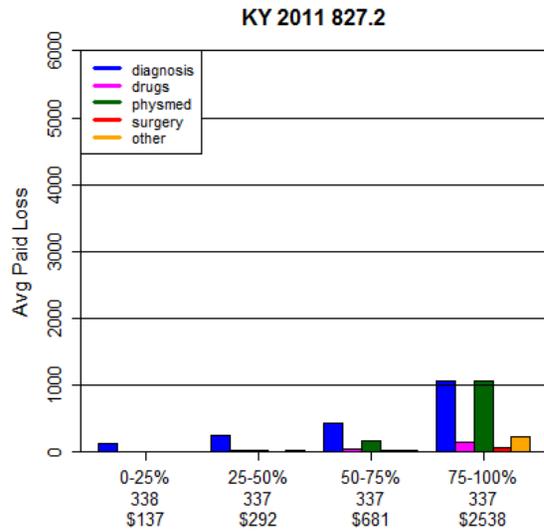
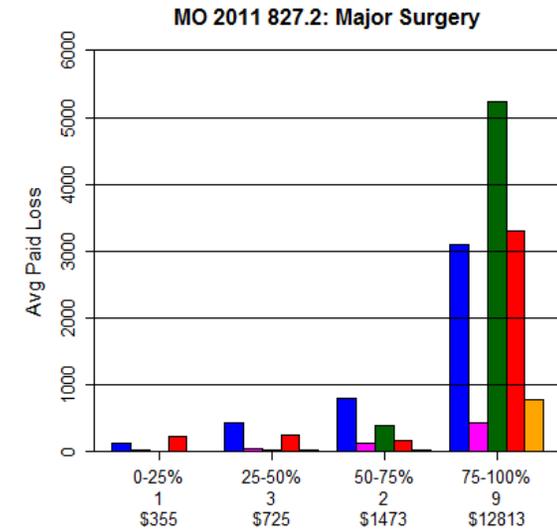
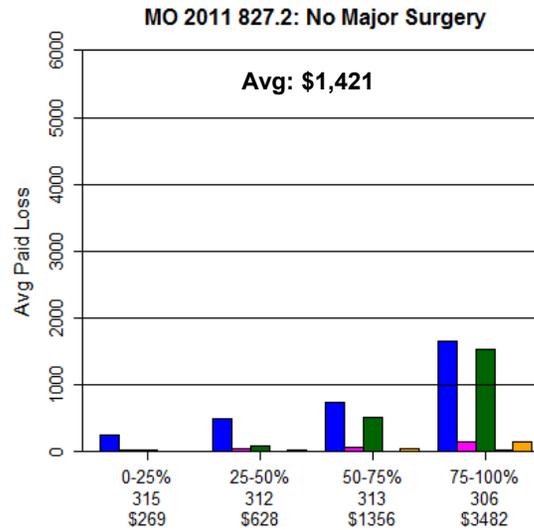
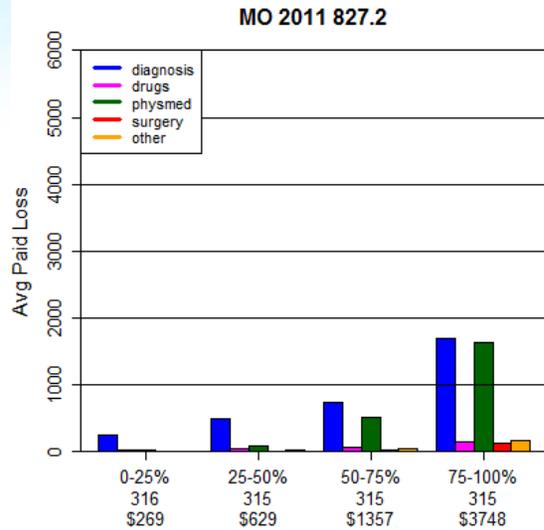


- ✓ The left panel shows the quartile distribution of paid loss per claim across payment categories
- ✓ The center & right panels split this distribution across claims w/o and w/ major surgery, respectively
- ✓ The left distribution for all claims is the mixture of the other two distributions
- ✓ Claims w/o major surgery: lower 50% of paid loss. Claims w/ major surgery: upper 75% of paid loss

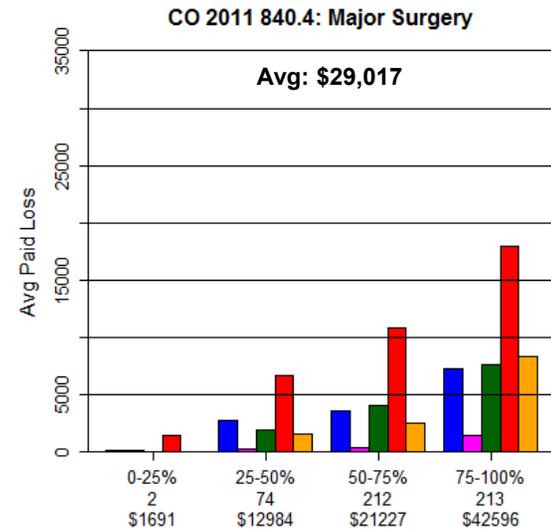
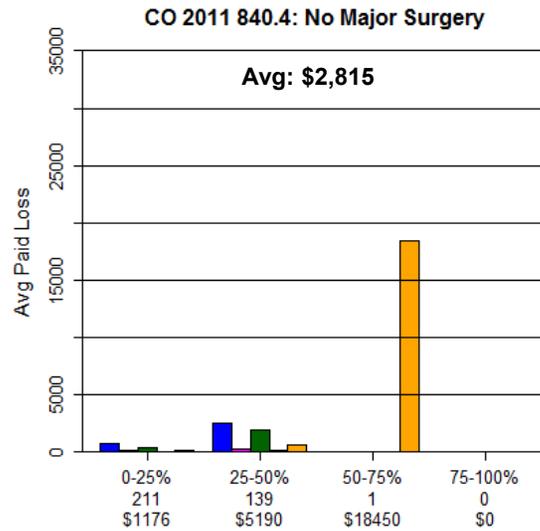
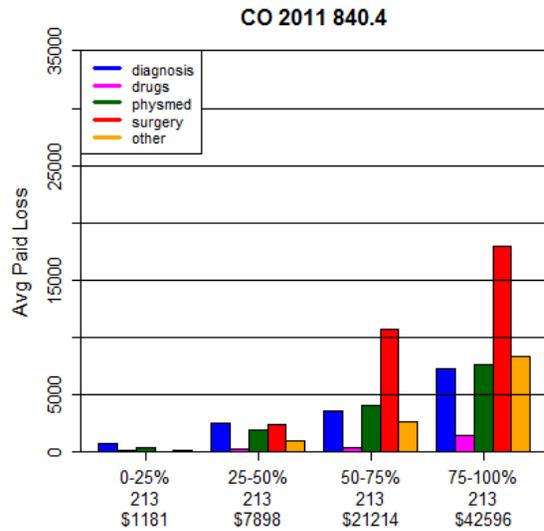
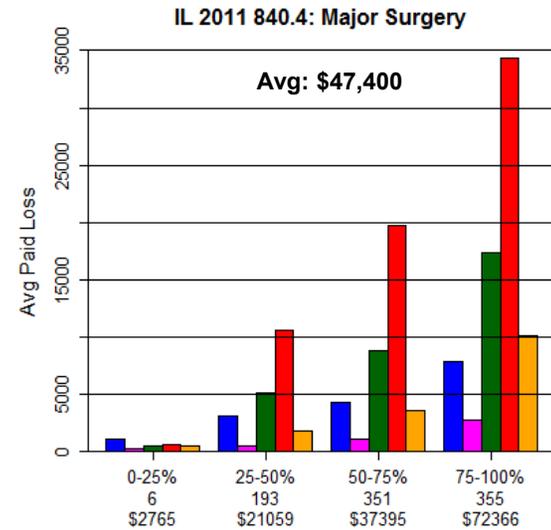
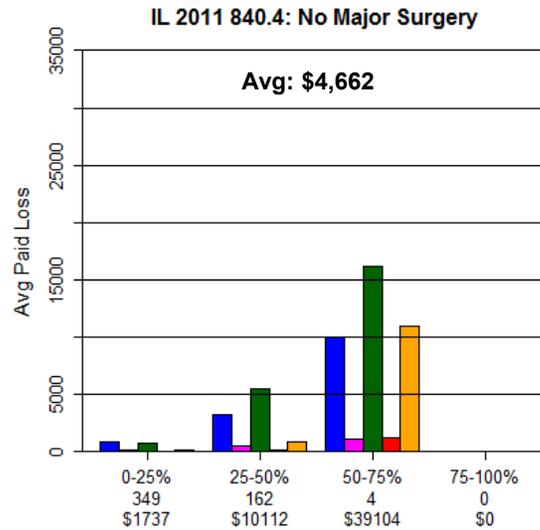
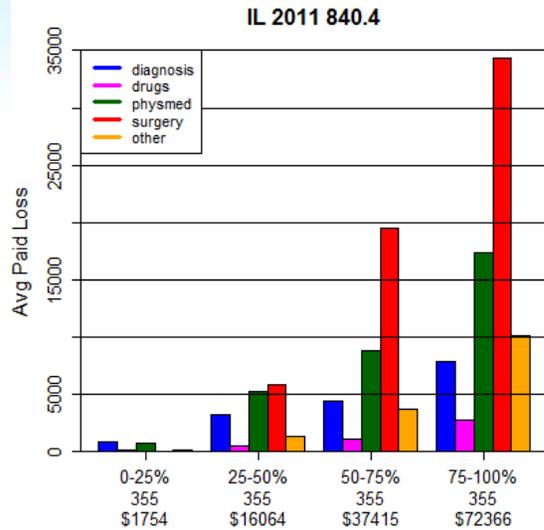
# 840.4 Rotator Cuff Sprain—MO & KY



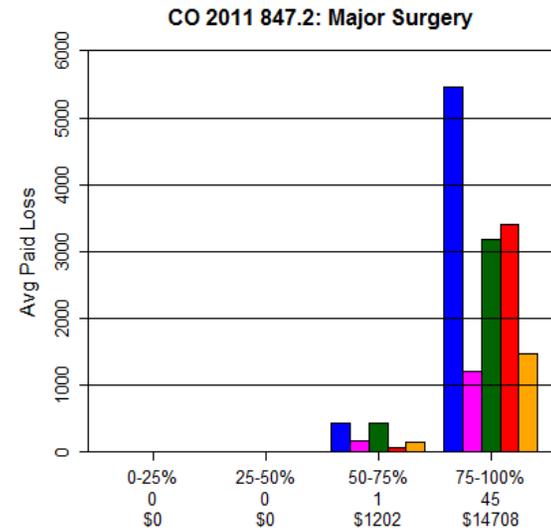
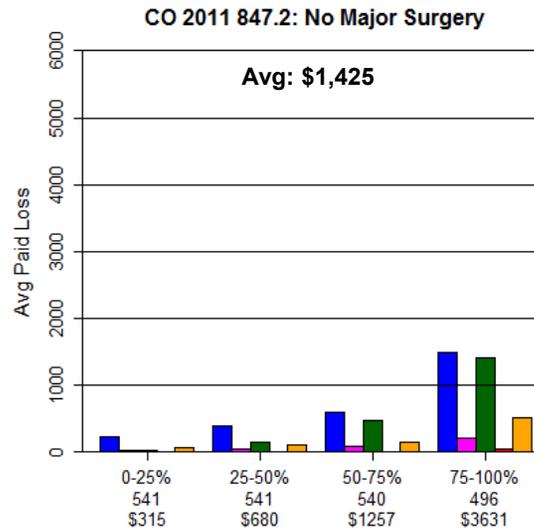
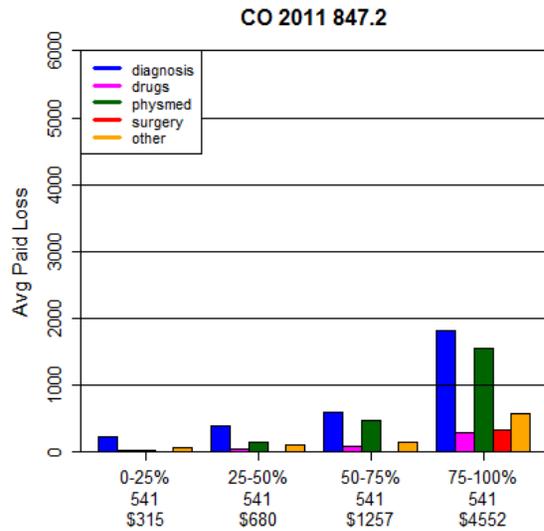
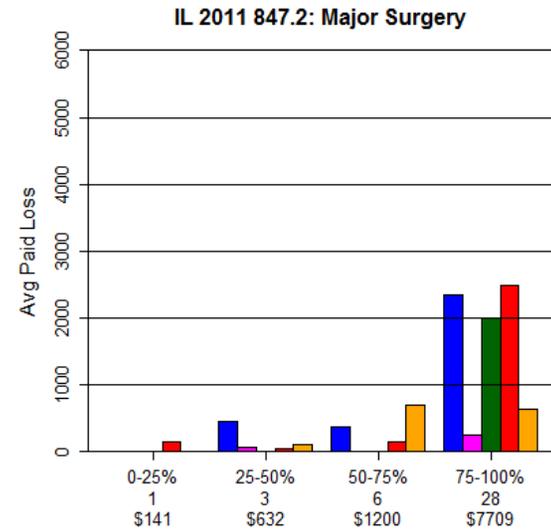
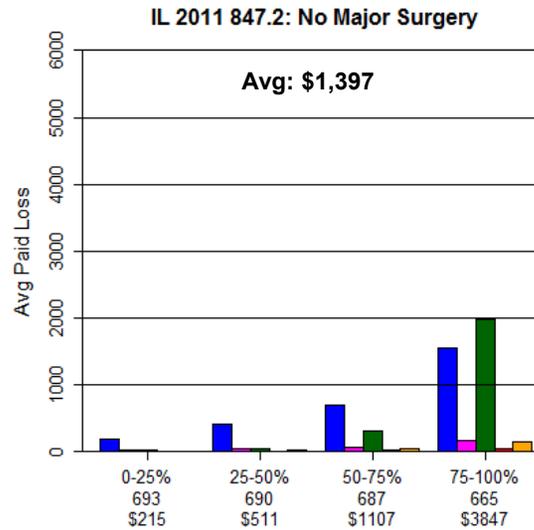
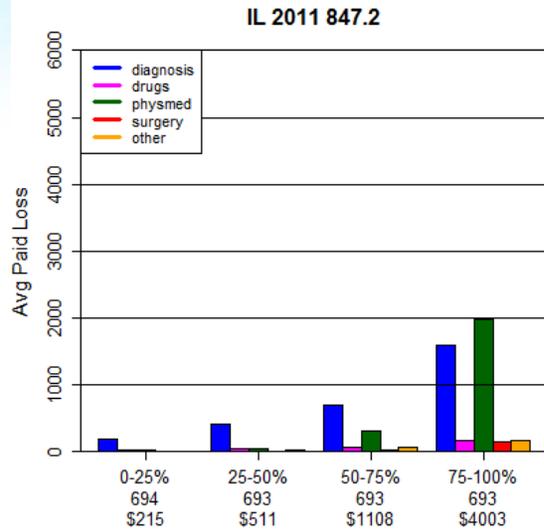
# 847.2 Lumbar Sprain—MO & KY



# 840.4 Rotator Cuff Sprain—IL & CO

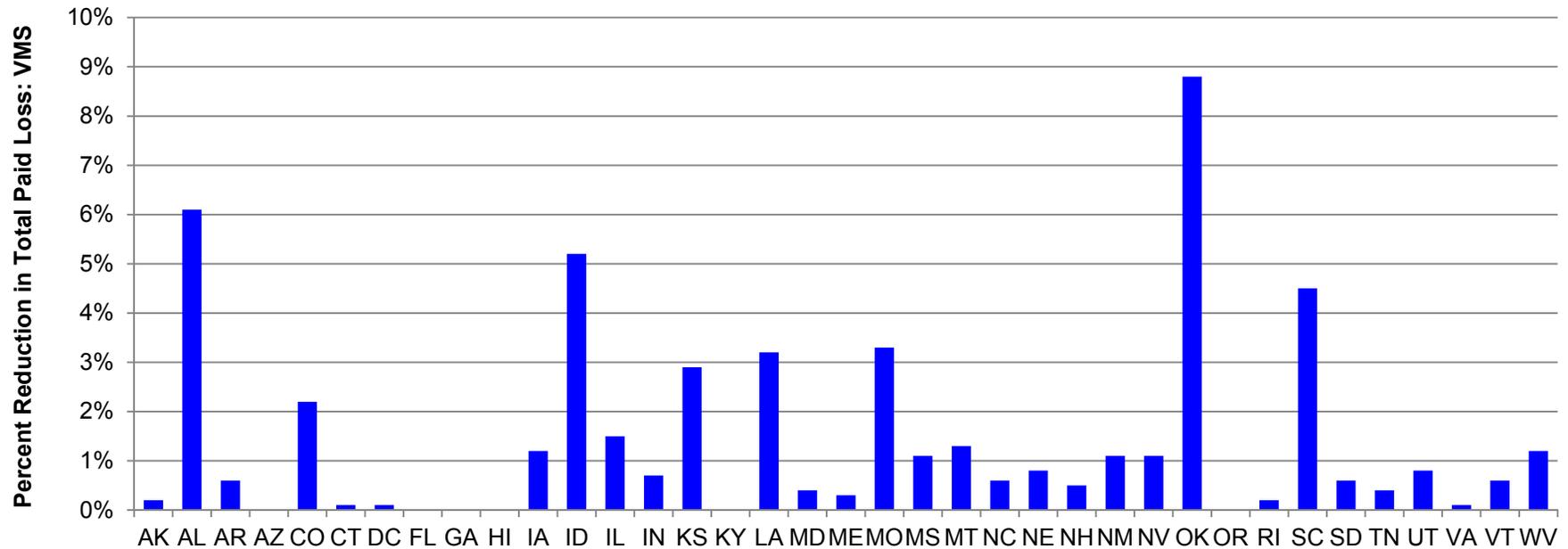


# 847.2 Lumbar Sprain—IL & CO



# Scenarios for Medical Expense Reduction

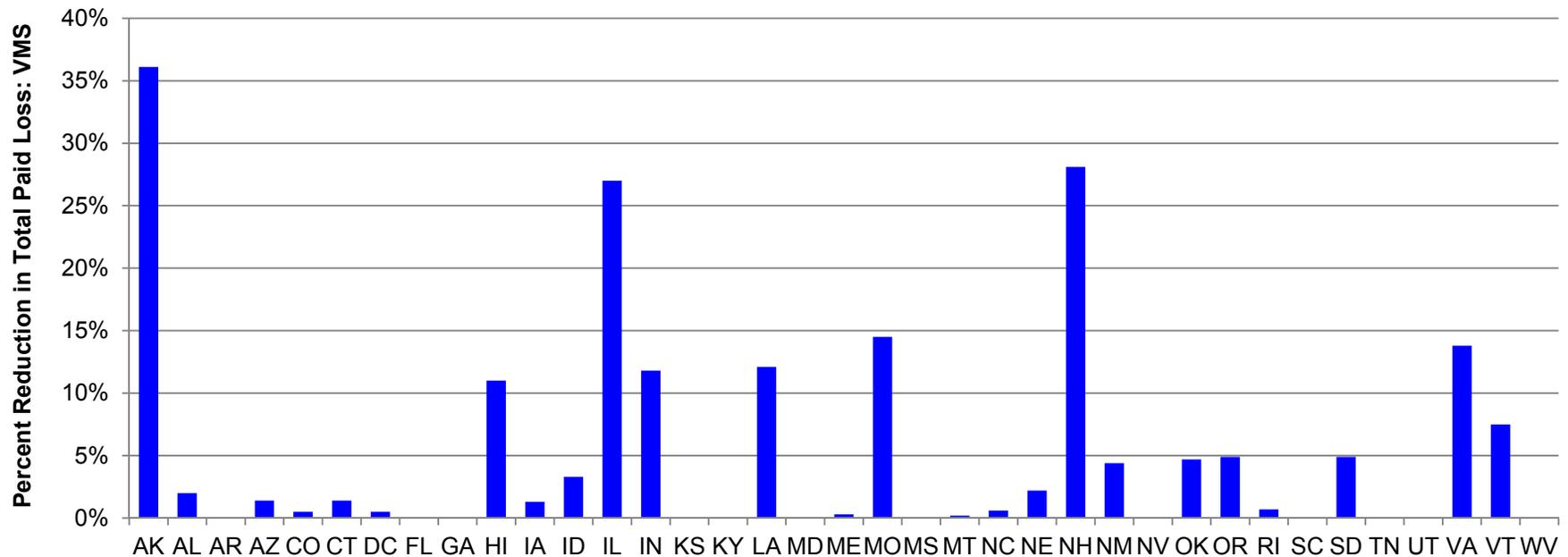
## Impact of Reducing Frequency of Major Surgery Variable Major Surgery (VMS) ICD-9s AY 2011



- ✓ For each VMS ICD-9, reduce state frequency of major surgery to 75<sup>th</sup> 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

## Impact of Reducing Average Paid Loss per Claim Variable Major Surgery (VMS) ICD-9s AY 2011



- ✓ For each VMS ICD-9, reduce the state average paid loss to 75<sup>th</sup> percentile if above that level
- ✓ Expense reduction to 75<sup>th</sup> 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



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# Summing Up



# 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
- 4<sup>th</sup> (highest) quartile claims are a big driver of overall average paid loss
  - What drives paid loss in 4<sup>th</sup> 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

- 1<sup>st</sup> (lowest) quartile claims are quite inexpensive
  - \$1,000–\$2,000 VMS group; \$100–\$300 Sprain group
- For 2<sup>nd</sup> and 3<sup>rd</sup> (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  $\approx$  9x 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?**