



Analytics to Improve Workers' Comp Outcomes & Identify the Best Providers to Treat Injured Workers

Linda Lane, President of Harbor Health Systems



- ▶ Linda Lane is President of Harbor Health Systems, a company that is revolutionizing workers' compensation by identifying the best performing physicians for better outcomes at lower overall costs. Linda also leads strategic initiatives with customers, improving both access to care and overall medical outcomes. Her career in workers' compensation spans more than 20 years of innovation, helping move the industry from a focus on cost containment and transactions to one which brings true medical management. Linda is also one of the founders of a leadership training program for women, founder and chair of the Business Insurance Women To Watch Foundation, and a graduate of Radford University.
- ▶ Contact: 904-610-1907 / LLane@harborsys.com

Let's Set The Stage

- ▶ Claims frequency is down, yet there is still a moderate increase in severity
- ▶ WC average medical cost per lost-time claim continue to rise, but at a much slower pace than in years past
 - ▶ Currently trending at 5.5-7% average annual increase
 - ▶ Even with the trend less than 7% vs 12% in 2007, the increase is outpacing general inflation
- ▶ Physician service costs per claim have fallen slightly, while hospital costs have increased slightly
- ▶ Employers and consumers are plagued by high prices that continue to grow because of new, expensive medical services and drugs

What We've Done Well

- ▶ **Fee Schedules** - There has been a marked increase in states with physician fee schedules
 - ▶ 12 states in 1979
 - ▶ 44 states in 2016
- ▶ **Treatment Guidelines** - strong adoption driven by aggressive UR
- ▶ **Mix of services** – Slight shift from In-patient to out-patient
- ▶ **Use of PPO** - Increase in the percentage of payments to in-network physicians
 - ▶ Up from 50% in 2004 to 65% in 2015

Why These Fall Short

In spite of positive regulatory changes, cost management initiatives, and advanced claims handling practices, medical costs continue to increase

- ▶ **Fee Schedules** – Focusing on unit cost may cause us to miss newer, more expensive, more effective technologies
- ▶ **Treatment Guidelines** - Is the extensive use of UR causing good doctors to be hindered in their care plans?
- ▶ **Mix of services**
 - ▶ 2004 article published in the Annals of Internal Medicine, patients and physicians agreed that the most crucial element of outpatient care is clinical skill
 - ▶ Identification of your quality providers becomes even more critical as you move from inpatient to outpatient
- ▶ **PPO networks**
 - ▶ Limited network management and lack of provider influence
 - ▶ Absent quality and outcomes indicators, data quality concerns
 - ▶ Minimum employer or payer customization
 - ▶ Provider contracting and credentialing
 - ▶ Access to care, mass provider inclusion
 - ▶ Discount based with percent of savings access fees

Looking Ahead

Technology and accountability will drive many of the healthcare decisions we make over the next few years

- ▶ Healthcare continues to become more complex
 - ▶ Increasing range of new, more expensive options
 - ▶ Health care economists estimate that 40–50% of annual cost increases can be traced to new technologies or the intensified use of old ones
 - ▶ Must continue to be delivered in the context of cost constraints
- ▶ Increase focus on accountability
 - ▶ Bundled services
 - ▶ Shared risk models
 - ▶ Pay for performance

It Starts With A Quality Provider

Today, independent assessment of medical care is more important than ever. Anyone can draw up a “best of” list – and many organizations do....

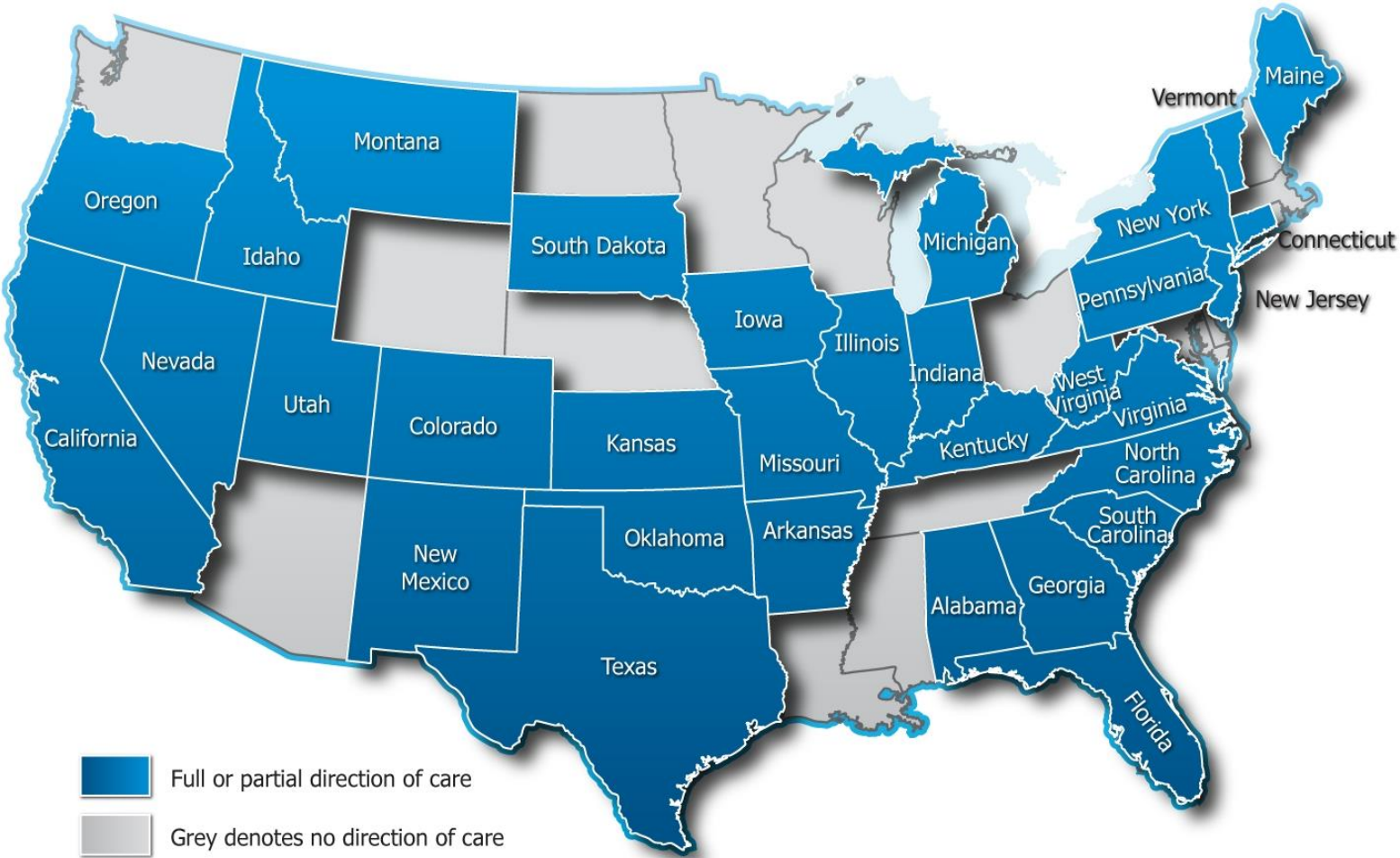
Basic Premise

- ▶ Outcomes vary by Doctor and the Better Doctors will have better Outcomes
- ▶ Patients treated in a network of the Best Doctors will have the best Outcomes

Identification Of Best Doctors

-
- ▶ Objective measurements based on claims data
 - ▶ Doctors with highest total overall scores have best outcomes
 - ▶ Objective measurement with an objective outcome
 - ▶ No judgment of medical skill
 - ▶ Results are data driven
 - ▶ Real time data updates

Quality Care Opportunity Nationally



Using Data As a Guide

To navigate against the background of both where we are and what lies ahead, we can begin to use data to compare performance between providers. Data can....

- ▶ Highlight problem areas in clinical performance
- ▶ Inform or drive quality improvement activities
- ▶ Identify issues for further research (i.e. trends)

So How Do We Get there?

Begin with what you know....Use routine data that is readily available for the purpose of assessing quality

- ▶ Data, in most cases, is readily available in your internal systems
- ▶ We sit on a rich source of information representing large volumes of patient history over many years
- ▶ This data is already being collected for other purposes and the cost of collection should be relatively low
- ▶ This retrospective view of closed claims can be used to assess future trends and quality indicators

Methodology Matters

It all starts with how you collect data and structure your processes

- ▶ When assessing outcomes, factors must be
 - ▶ Objective
 - ▶ Quantifiable
 - ▶ Reproducible
- ▶ Consider limiting your data set to closed claims only
 - ▶ Outcomes by definition can only be fully seen on claims that have run their course
- ▶ Data integrity matters
- ▶ Get granular
- ▶ Identify and remove outliers

It Sounds Easy, But Beware The Pitfalls...

The way in which data is collected and interpreted may have significant implications. Key areas of focus are:

- ▶ Measurement Properties
- ▶ Controlling for Case Mix and Other Factors
- ▶ Coping with Chance Variability
- ▶ Data Quality

Measurement Properties

Validity & Reliability

Some of the sources we might rely on may lack important clinical details needed for a true quality assessment

- ▶ **Who?**

- ▶ Lack of structure and consistency around NPI numbers can make mapping identities incredibly challenging

- ▶ **Why?**

- ▶ Manually entered data can lead to variations or absence of crucial elements such as changes to, or accuracy of injury 10 codes

- ▶ **What?**

- ▶ Variations in reporting practices over time may hinder clarity around care plans, results, and critical details

Measurement Properties

Conflicting Findings

Combining diverse data elements into a single analytical approach can lead to inaccurate correlation to the outcomes observed

- ▶ Correlation
 - ▶ Quantifies the degree to which two variables are related
- ▶ Regression
 - ▶ Used to examine the relationship between one dependent variable (TTD) and one independent variable (any patient characteristic such as severity)

Controlling for Case Mix

Performance comparisons between healthcare providers need to take into account whether the measures being compared derive from similar patient groups

- ▶ Clinical Characteristics
- ▶ Patient Characteristics (i.e. presence of co-morbidities)
- ▶ Weighting variables
- ▶ Adjusting for controllable vs. uncontrollable

The impact of Co-morbidities

- ▶ Based on Harbor research analyzing more than 7,000 WC claim, injury dates between Jan. 1, 2011 and Dec. 31, 2013.
- ▶ Seven comorbidities observed: obesity, diabetes, hypertension, addiction, mental health, tobacco use and multiple comorbidities.
- ▶ Claims associated with comorbid conditions experienced:
 - ▶ Longer claims duration
 - ▶ Higher medical costs
 - ▶ More temporary disability (TTD) days
 - ▶ Increased litigation rates
 - ▶ Increased surgery rates
 - ▶ Except tobacco use – did not have a significant impact on outcomes compared to control group

Chance Variability

Chance variability is also known as chance error and is the inherent error in any predictive statistical model

- ▶ Defined as the difference between the predicted value of a variable (by the statistical model in question) and the actual value of the variable
- ▶ The variation of actual occurrence versus the mean is a common comparison
- ▶ Objectivity and consistency of approach will minimize chance variability

Data Quality

Garbage In = Garbage Out

- ▶ Some data collection may be manual – i.e. an adjusters entry of claims information into a claims system
- ▶ Disassociation of the system(s) as a source and the understanding of the intended use for analytics can lead to a bad set of data elements
- ▶ Collection over time can also mean variations in sources
 - ▶ New claims systems
 - ▶ Multiple claims systems
 - ▶ New bill review partners
 - ▶ Revised state reporting requirements

Putting Your Data To Work

Approach

- Key stakeholder engagement
- Define expectation and build around that
- Outcome benchmarks

Measure

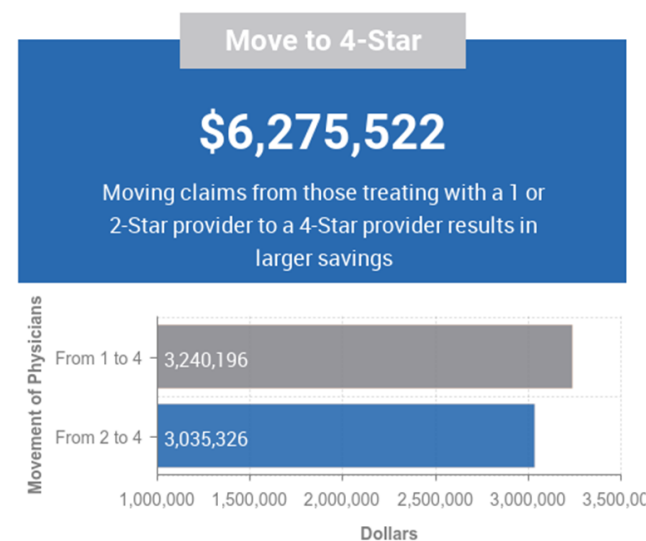
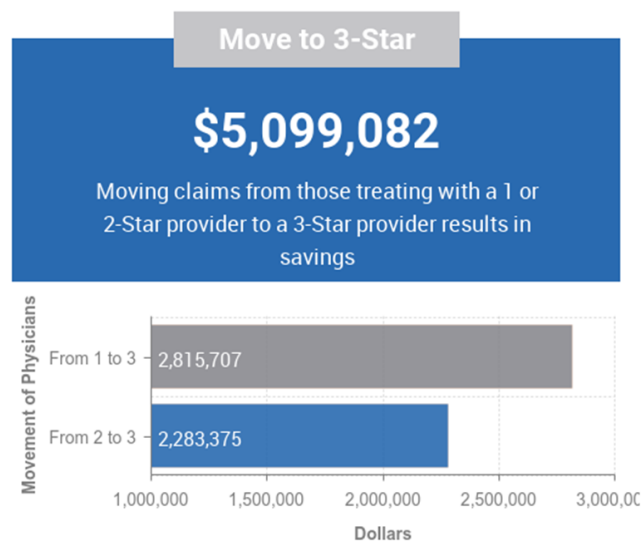
- Provider considerations
- Process gaps
- Claims elements

Partner

- Provider communications
- Employer and patient engagement
- Claim team awareness

The Impact On Spend

Our work substantiates the financial impact a quality provider can have on total medical paid over the average life of a claim



Conclusion

- ▶ Not all doctors are created equally
- ▶ There are methodologies and approaches that get you to understanding outcomes – but your approach must be a well educated one
- ▶ Better care improves outcomes for all constituents
 - ▶ The injured worker
 - ▶ The employer
 - ▶ The payor
- ▶ Its not just about the bottom line, its about quality of life. Quality providers improve the quality of life.

Q&A



Contact: 904-610-1907 / LLane@harborsys.com