





Cost Drivers and Complex Claims

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Musculoskeletal Disorders

- Leading cause of disability in US
- > Annual costs for bone and joint health \$874 billion
- > 5.73% of GDP



BMUS

The Problem

> All need patient education



> Many need physical therapy



Work Comp Costs Rising

Despite

- > Bill Review
- > Utilization Review
- Case Management
- **>** PPOs



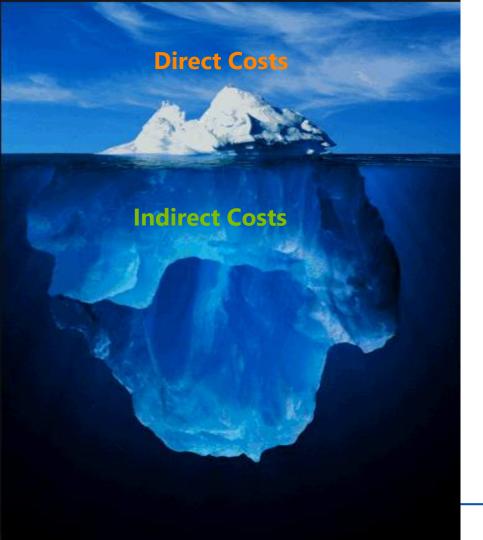
North, David A. 2011, Quality Health Care Assumes Center Stage

Work Comp Costs Rising

- Medical literacy was missing
- Little effort was directed toward helping injured workers understand their diagnosis or treatment options
- Many injured workers did not know how to facilitate their own recovery process

North, David A. 2011, Quality Health Care Assumes Center Stage





- WC payments
- medical expenses
- costs for legal services
- training replacement employees
- accident investigation
- implementation of corrective measures
- lost productivity
- repairs of damaged equipment and property
- costs associated with lower employee morale and absenteeism

The Problem

- > Just as a major theme park can't rely on attractions and entertainment with outdated technology to captivate today's audience
- > Neither can workers' comp and disability managers apply outdated practices to engage today's techsavvy workforce.



Tim East

The Solution

- Engaging injured workers in their own recovery and claims process makes practical sense.
- The more engaged, the more likely they will participate in positive behavior, helping them return to work sooner.
- But in a world of rapidly changing technology, measures for engaging workers must evolve
- >— or be doomed to fail.



Tim East





"US Employers could save up to \$6 Billion per year by providing telemedicine technologies to their employees"

\$6 Billion per year?

- > Reduction of re-admissions
 - Linked to chronic conditions through mobile health monitoring technologies
- > Decrease in unnecessary use of emergency appointments
 - Through remote visits with nurses
- > Lower amount of wasted capacity
 - Through telemedicine-based appointments





Predictive Modeling

- > Prescriptive Analytics Modeling
- > Forecast a higher likelihood of certain events occurring
- Industry Use: Medical, Insurance, Weather, Banking

Predictive Modeling

Workers' Compensation Setting?

- > Recovery time
- > Return to Work
- > Setting of reserves

Poll Question

Predictive modeling in the workers' compensation setting

- A. Allows factual determination of projected Return to Work dates
- B. Allows factual projections of increased recovery time
- C. Allows for more accurate setting of reserves
- D. All of the above

ODG by MCG

- **>** Comorbidities ?
- **)** Diabetes
- **)** Obesity
-) HTN
- Opioid Use
- Mental Illness
- Smoking
- > Legal Representation

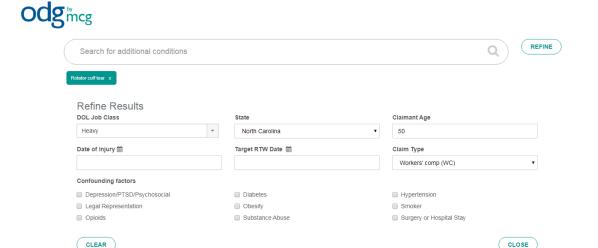
Comorbidities Why Care?

- > Tripled from 2000 to 2009
- Cost Drivers in WC



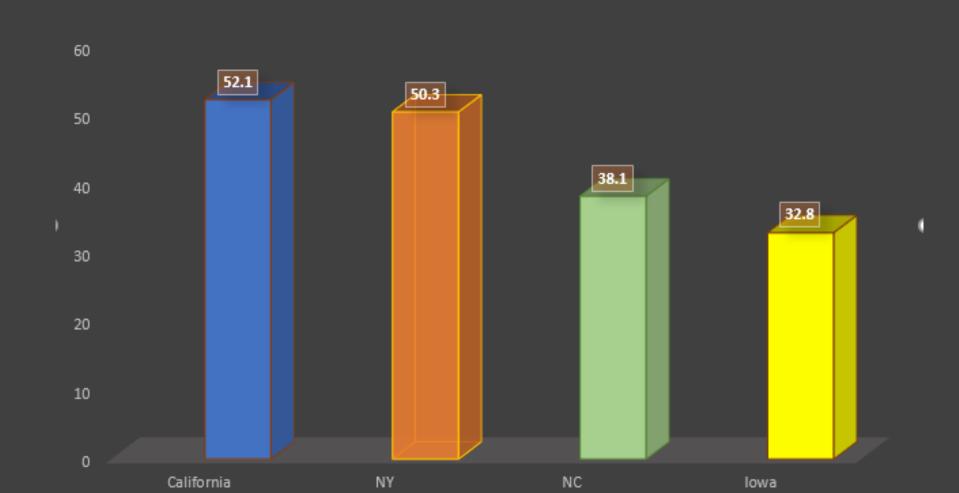
Sample Patient

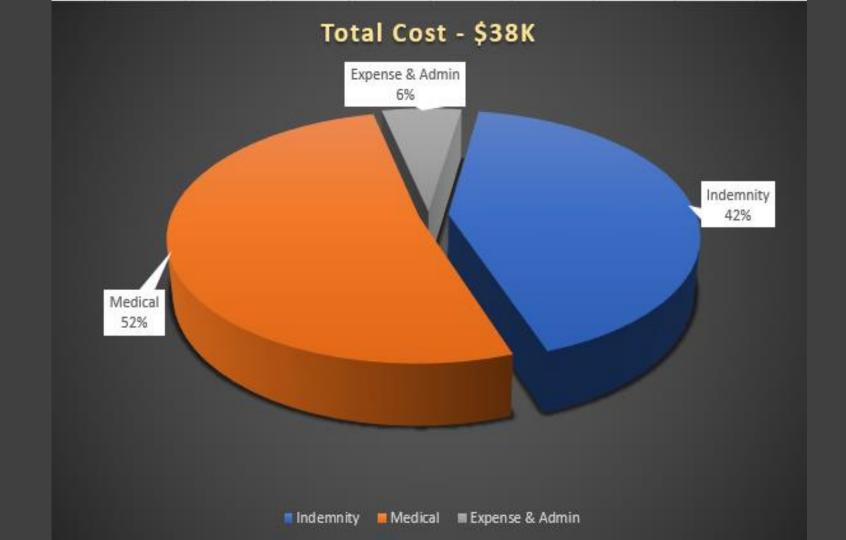
- > Age 50
-) NC
- Heavy Demand Job
- > Rotator Cuff Tear
- > Total Cost Claim \$38 K



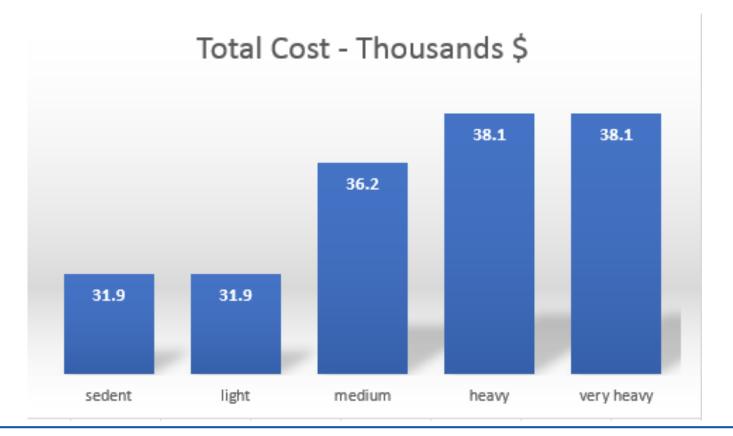


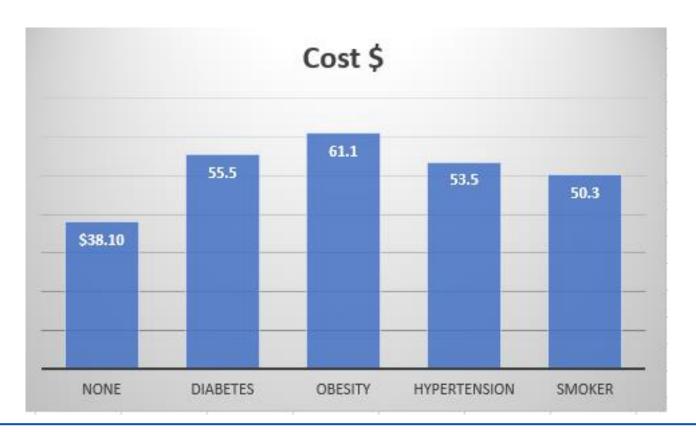
BY STATE



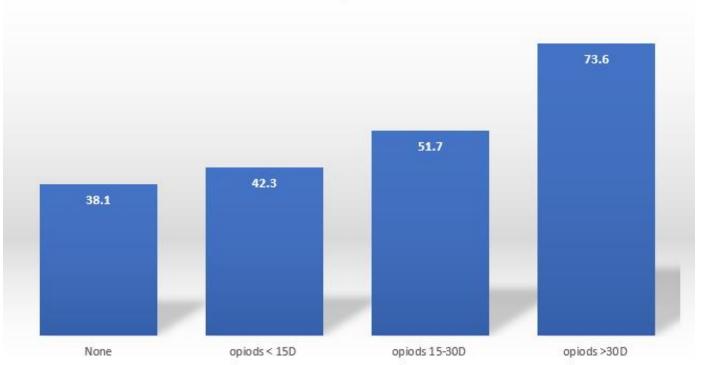


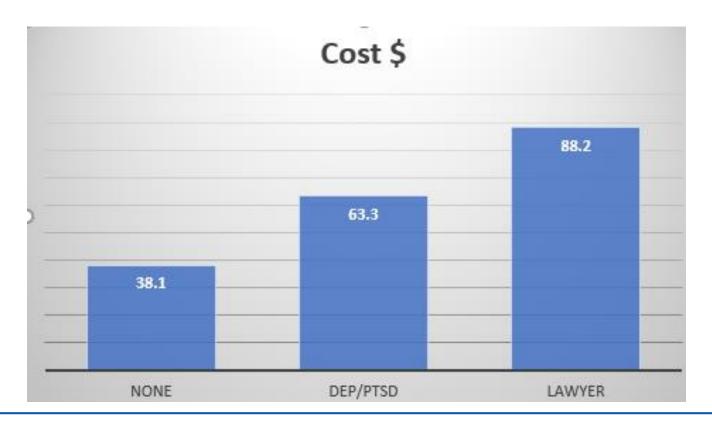




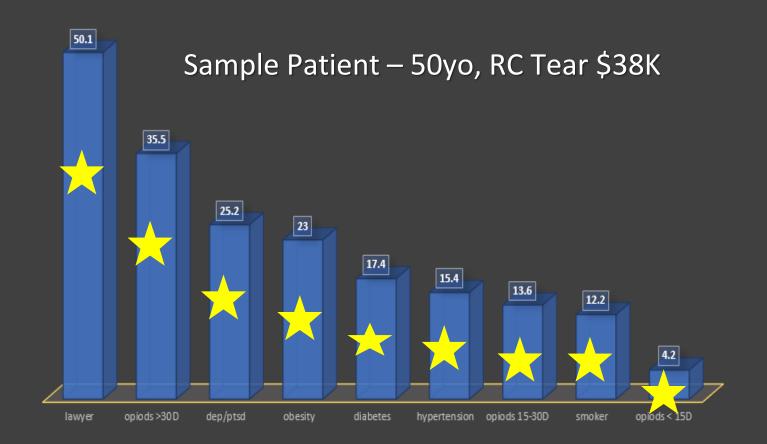








ADDITIONAL COST - THOUSANDS



Abnormal findings on magnetic resonance images of asymptomatic shoulders.

- > 40-60 years old
- One (4 per cent) had a full-thickness tear
- Six (24 per cent) had a partial-thickness tear

Sher JS, et al J Bone Joint Surg Am. 1995 Jan;77(1):10-5

Poll Question

The prevalence of a rotator cuff tear on MRI in an asymptomatic, non-injured worker over the age of 60 is?

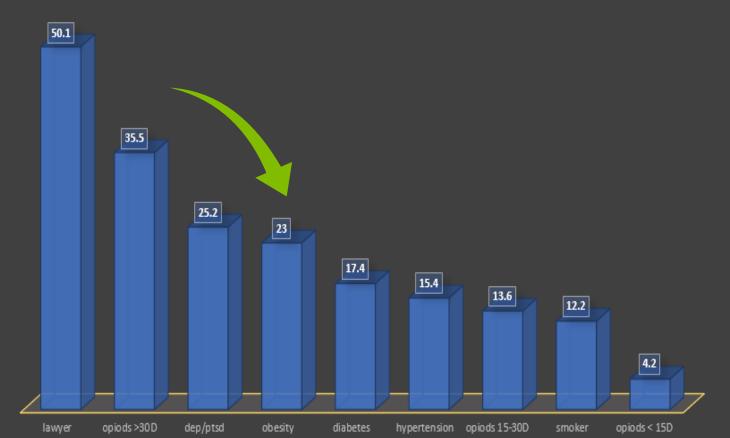
- A. 10%
- B. 20%
- C. 30%
- D. 40%
- E. 50%

Obesity

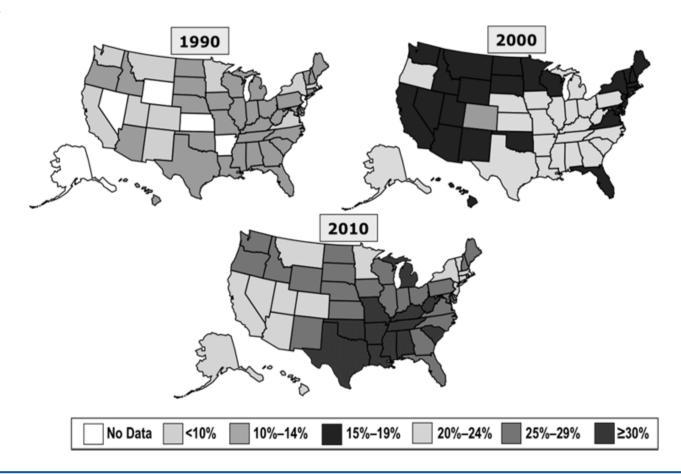


ADDITIONAL COST - THOUSANDS

Obesity

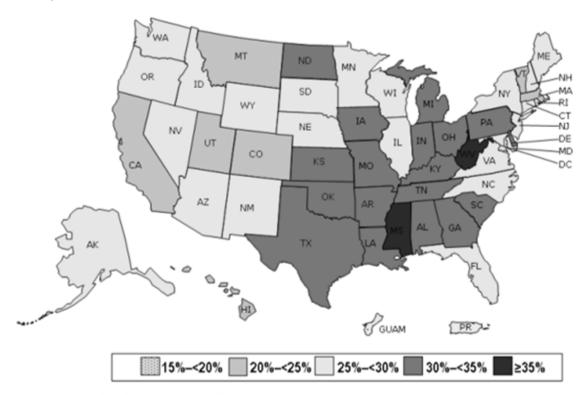


Obesity



Obesity

Prevalence* of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2013



Source: Behavorial Risk Factor Surveillance Systems, CDC.

Obesity - Costs & Implications

- > AMA reclassified as a disease in 2013
- Obese Employees
- Twice as many claims
- > 13 times as many lost workdays

Obesity - Which diagnoses are most impacted?

- Orthopedic injuries especially those affecting ambulation
- > Lumbar disc displacement with myelopathy
- > Tear medial meniscus
- > Sprain of shoulder, cervicalgia
- Increases the healing time for fractures, strains and sprains
- > Sprain Lumbar Region
- Complicates surgery

Obesity: Challenges for Physicians

- > Limited physician-patient contact time
- > Lack of/limited reimbursements
- > HIPAA Guidelines on confidentiality
- Maintaining unbiased opinions

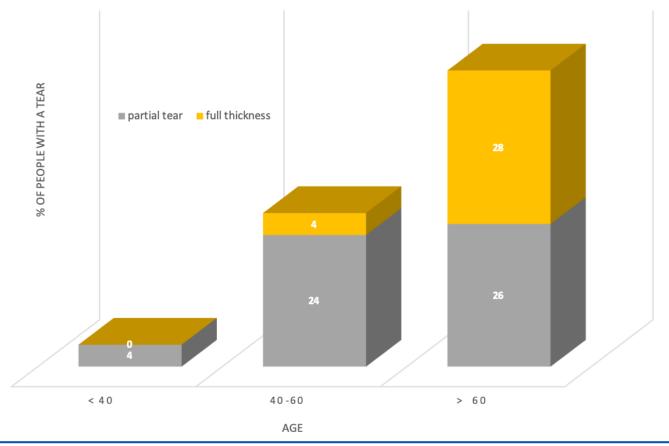
Obesity: Challenges for case managers and adjusters

- > Basing work capacity on objective finding vs. subjective complaints
- Obesity diagnosis
- Medical records show history of non-compliancy

Aging Workforce



Asymptomatic Rotator Cuff Tears in MRI



Abormal findings on magnetic resonance images of asymptomatic shoulders.

- > Over 60 years old
- > 28% full-thickness tear
- > 26 % partial-thickness tear
- > 54% rotator cuff tear

Sher JS, et al J Bone Joint Surg Am. 1995 Jan;77(1):10-5

Effectiveness of physical therapy in treating atraumatic full-thickness rotator cuff tears: a multicenter prospective cohort study

Therapy protocol is effective 75% of patients followed up for 2 years

Aging Workforce

- Increase in older worker
- > Longer Life expectancies
- > Enjoy working and being productive
- Decline in home prices
- > All workers are aging workers

Aging Workforce - Challenges

- > Increased Medical co-morbidities
- > Slower recovery
- Some fractures may require surgery
- More adversely affected
- Osteoarthritis





Use of a Validated Algorithm to Judge the Appropriateness of Total Knee Arthroplasty in the United States: A Multicenter Longitudinal Cohort Study

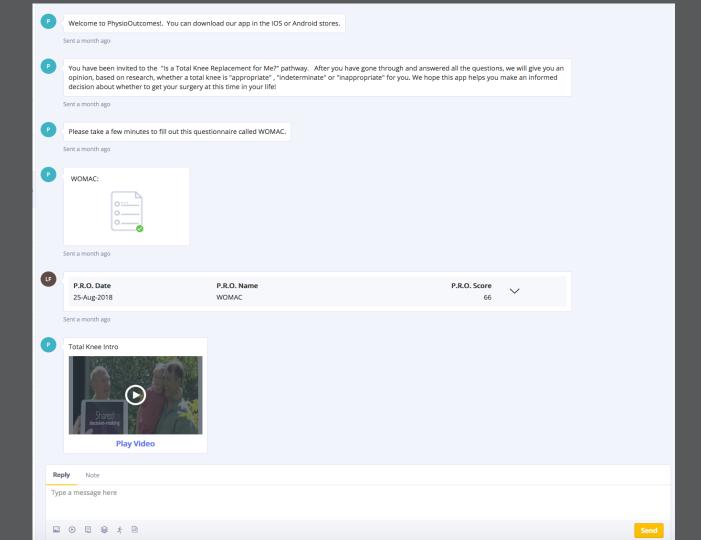
> Approximately one-third judged to be inappropriate



Use of a Validated Algorithm to Judge the Appropriateness of Total Knee Arthroplasty in the United States: A Multicenter Longitudinal Cohort Study

- > PhysioOutcomes Algorithm
-) appropriate
- **)** inconclusive
- inappropriate







Sent a month ago

Heel Raises Both Legs - Standing

Hold Time Frequency Reps Sets 0 (Sec.) Every other day

Sent a month ago

Based on your Womac of 66, 2 compartment arthritis, and age less than 55, your left knee is "appropriate" for knee replacement surgery

Sent 18 days ago

Reply

Note

Type a message here

















Aging Workforce - Costs and Implications

- Workers over 55 YO
 - Indemnity and medical payments higher
 - Lost work days
 - Twice the amount for a worker aged 20 24
- Compensability following an injury may be harder to determine

- > Enhance lighting (50% greater than for younger workers)
- Install slip-resistant flooring, repair uneven surfaces
- Handrails, Increased contrast for stair edges and curbs
- > Reduce clutter
- Noise dampening materials (e.g. on the factory floor)
- Use mechanical assist devices, such as hoists or jacks to reduce awkward lifts

Van Dillen RN, BA, CCM

- Organize work to minimize lifting and carrying
- > Relocating items from floor to waist level
- Remove barriers that prevent access to needed materials and tools
- > Training to keep the load close to the body when lifting or carrying
- Intersperse periods of lifting with periods of rest
- Training to avoid awkward postures

- > Employee Health Healthy Lifestyles
 - Wellness and exercise programs

- Loss of muscle mass and strength
- Weight gain
- Strategies
- > Ensure attendance in PT
- > Close contact with physicians
- Identify specialists
- > Follow Evidence Based Guidelines

- > Total Worker Health
- > Professional Skills Job-Related Knowledge and Competence
- Ongoing training

- Psychosocial Factors
- Work Arrangements and Flexibility, Social Support and Culture
- > Creating a supportive culture
- Developing a broad set of programs and policies
- > EAP as a resource

Antibiotic Resistance

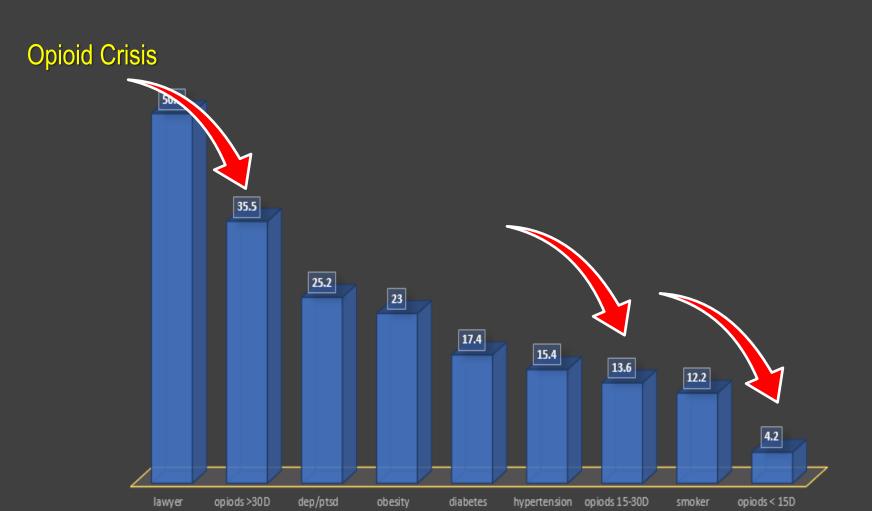
- > 450,000 new cases of multi-drug resistant TB in 2012
- > High proportions of antibiotic resistance in bacteria that cause common infections
- > Treatment failures due to resistance to treatments of last resort for gonorrhea have now been reported in 10 countries. Gonorrhea may soon become untreatable as no vaccines or new drugs are in development
- > Patients with infections caused by drug-resistant bacteria
 - Are generally at increased risk of worse clinical outcomes
 - Consume more healthcare resources than patients infected with the same bacteria that are not resistant

Antibiotic Resistant Infections

How to mitigate cost driver?

- > Severe or multi-trauma injuries with open wounds
- > Key is prevention and aggressive treatment
- > Wound management is imperative
- Watch for documentation of MRSA
- > Case Manager
 - Teaching on completing full course of antibiotics, even if they feel better
 - Can coordinate IME or UR

ADDITIONAL COST - THOUSANDS



Opioid Crisis

U.S.

- >80% of the world's prescription opioids
- > < 5% of the world's population

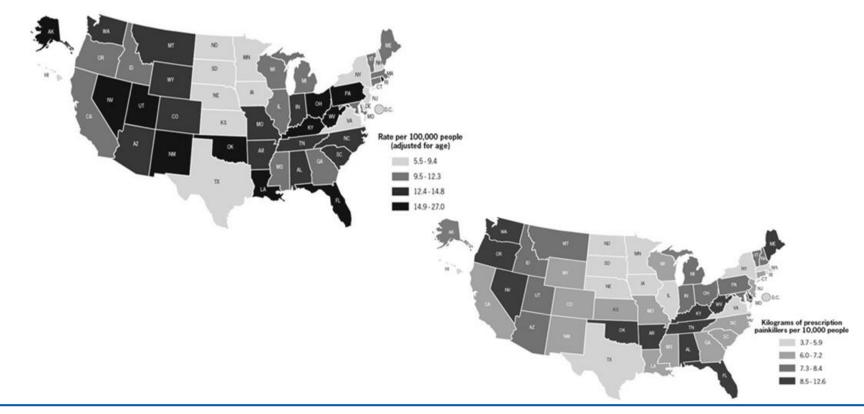
Manchikanti L, Singh A. Pain Physician. 2008 Mar;11(2)(Suppl):S63-88

Opioid Crisis

- > Aggressive marketing by pharmaceutical companies
- Organizational mandates of pain assessments
- Growing fear of the bone-healing impact of NSAID

Rachel B. Seymour, PhD, et al J Bone Joint Surg Am. 2017;99:e113(1-10)

Prescription Drug Use: Drug OD death rates compared to prescription painkillers



Leading the Way to Solutions to the Opioid Epidemic AOA Critical Issues

Orthopedic Surgeons

- > 2.5% of U.S. physicians
- > prescribe 8% of the narcotic analgesics

Rachel B. Seymour, PhD, et al J Bone Joint Surg Am. 2017;99:e113(1-10)

Prescription Drug Use: Costs and Implications in Workers' Compensation

- > 19% of w/c medical costs are related to prescriptions
- > Narcotics account for nearly 30% of all WC Rx costs1
- Has been no decrease in the amount of disability
- The claims cost small in comparison to the human costs

Prescription Drug Use: ACOEM Guidelines

- For acute pain only
- For short-term use in chronic pain
- > For continued use only in rare situations

Prescription Drug Use: ACOEM Guidelines

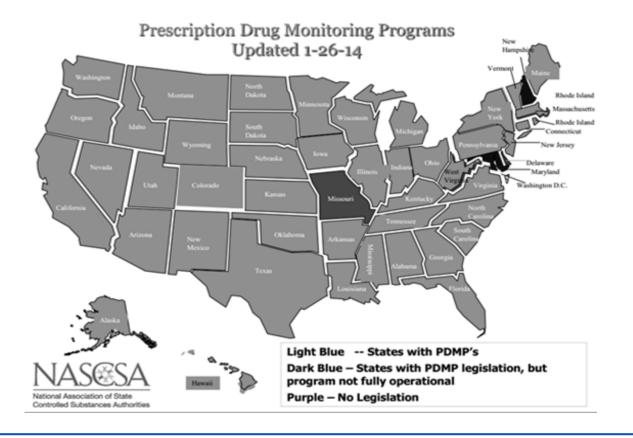
- Working Collaboratively with all stakeholders
- Developing an Integrated Opioid Protocol
- > Research best practices
- > Set up protocols
- The Case Manager should work collaboratively with the prescriber
- "If the opioid is not facilitating decreased pain and increased function, then why is the injured worker receiving an opioid?"

Prescription Drug Use: ACOEM Guidelines

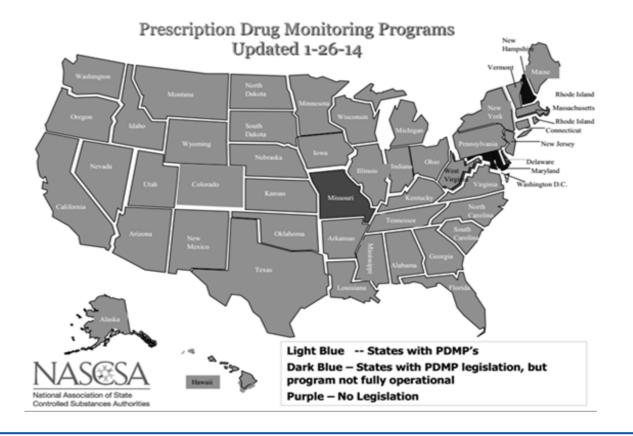
Developing an Integrated Opioid Protocol

- > Medication Reconciliation Assessment
- > Graded Chronic Pain Scale
- Morphine dosage calculator
- > Standardized Assessment Tool
- > Advancement through the opioid protocols are based on these calculations and assessments

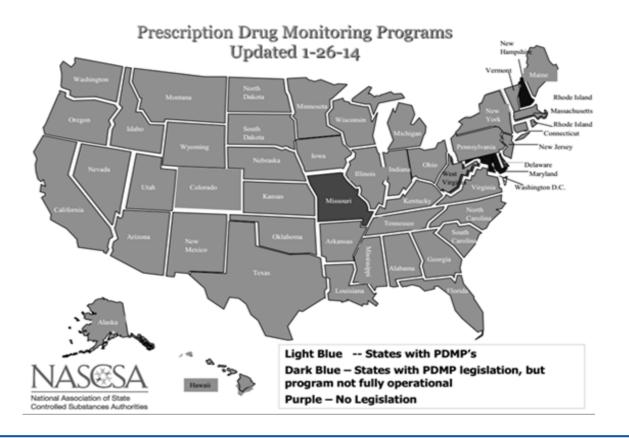
Prescription Drug Monitoring Programs (PDMP)



Prescription Drug Monitoring Programs (PDMP)



Prescription Drug Monitoring Programs (PDMP)



Prescription Drug Use: Approaches to Pain

PAIN REHABILITATION

- IW is active
- Focus on Function
- Therapy is taught not administered (no modalities)
- Must change dysfunctional approach to pain
- Internal locus of control

PAIN MANAGEMENT

- IW is passive
- Focus on Symptoms
- Physician as healer
- Physician keeps trying to cure pain
- External locus of control

Complex Injuries and Complicating Factors

- > Head Injuries
- > Spinal Cord Injurie
- Amputation
- > Spinal Fusion Surgeries
- Multiple Fracture
- > Pelvic Fractures
- Crush Injuries
- **>** Burns
- Upper & Lower Extremity Injuries
- Diabetes

Complex Injuries and Complicating Factors

- Obesity
- Circulatory Disorder
- > Cardiac Conditions
-) Hypertension
- > Neurological Abnormalities
- Age
- **)** Infection

Poll Question

The factor that most increases a workers' compensation claim is

- A. Obesity
- B. Legal Representation
- C. Hypertension
- D. Opioid use
- E. Delay in diagnosis

Thank You

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