

# Transforming Health Care: Implementing High-Quality / Low-Cost Care



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# “The Price of Excess”

## PricewaterhouseCoopers, 2008

“wasteful spending in health system calculated at 54.5%.”

Biggest area of excess:

- redundant, inappropriate, or unnecessary tests and procedures
- followed by inefficient healthcare administration.



## Impact of Musculoskeletal (MSk) Disorders:



- Health care is approximately 20% of the U.S. economy.
- MSk disorders are approximately 20% of U.S. health care
- So MSk disorders: 4% of the U.S. economy
- Half is unnecessary: 2% of U.S. economy



In 2013, Massachusetts' gross state product was \$450B. So \$9B (2%) was likely spent unnecessarily on MSk care.

How much is 2% of your annual H.C. spend?



# The LBP and NP challenge:

- LBP and NP affect the great majority of people
- Conventional thinking: most recover on their own
- Guidelines: reassurance, return to activity ASAP
- LB and NP are the #1 and #4 leading causes of disability in the world
- For employers: LBP is a top health care spend
- LBP: direct + indirect costs = \$5-600 billion /yr.







Niagara Falls





Don't worry!  
Stay active  
Avoid bed rest

A HUGE problem!  
A HUGE opportunity!

Acute  
LBP

Subacute

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Surgery

\$\$\$\$

#1 Disability

Multi-D  
Rehab

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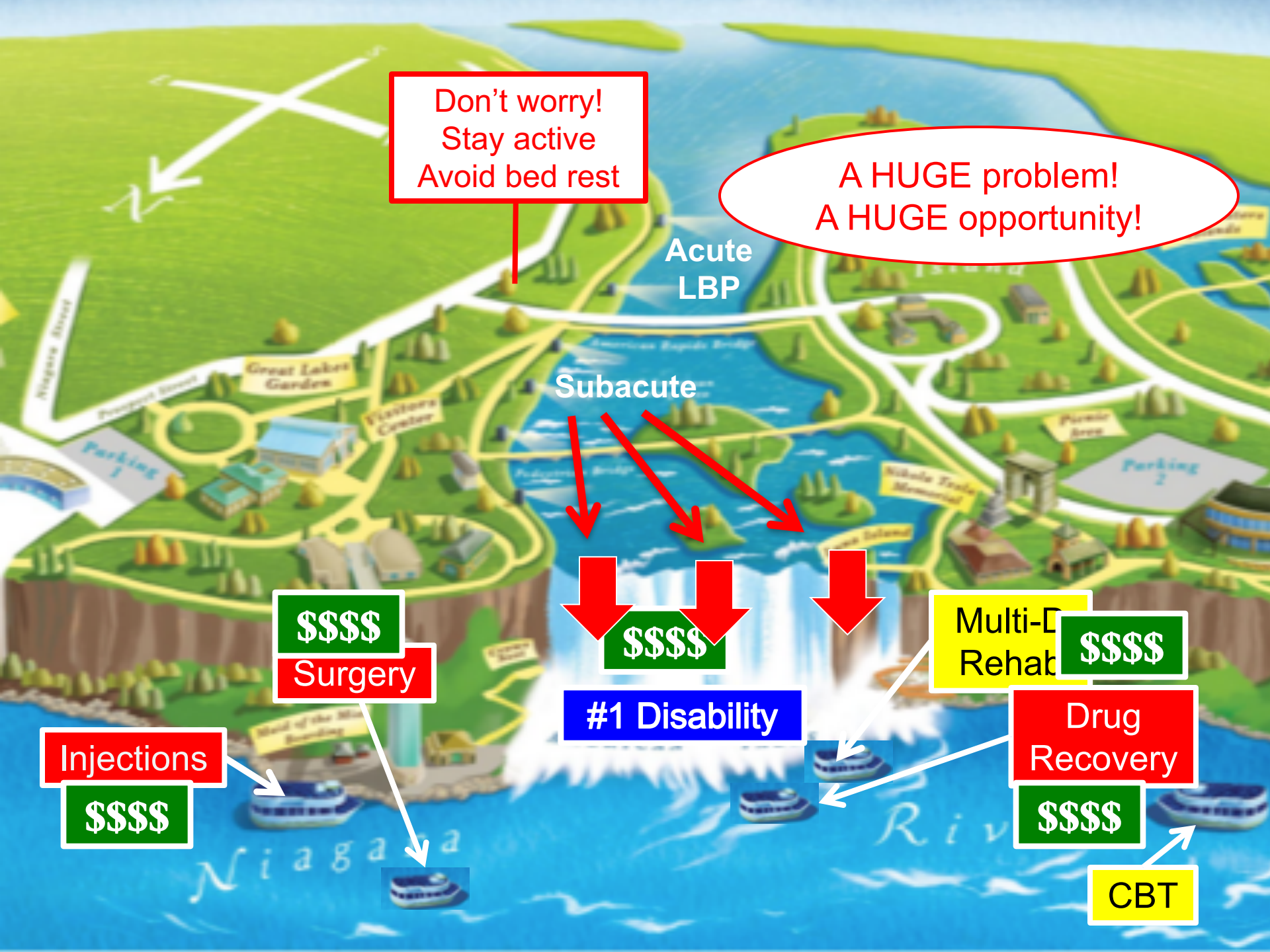
Drug  
Recovery

\$\$\$\$

CBT

Injections

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Despite three decades of tens of millions spent on thousands of research studies and guideline creation.....

Mafi et al: Worsening trends in the management and treatment of back pain. JAMA Intern Med., 2013

Reports an acceleration of:

- development of chronic pain
- opioid prescriptions / addiction
- use of injections and surgery
- work disability

Things are not improving; they are worsening!



*Every process is perfectly designed  
to get the results it gets.*

Paul Batalden, Ph.D.

*Insanity: doing the same thing over  
and over again and expecting  
different results.*

Albert Einstein.

*You will keep repeating  
the same patterns....  
until you learn the lesson.*



What is “the lesson”?

Is there a missing  
fundamental piece?





# Quebec Task Force Report:

“There is so much variability in making a diagnosis that this initial step routinely introduces inaccuracies which are then further confounded with each succeeding step in care.”

Spitzer, et al: *Scientific approach to the assessment and management of activity-related spinal disorders (The Quebec Task Force)*. Spine, 1987. 12(7S): p. S16-21.

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# Quebec Task Force Report:

The diagnosis “is the fundamental source of error..... Faced with uncertainty, physicians become inventive.”

Spitzer, et al: *Scientific approach to the assessment and management of activity-related spinal disorders (The Quebec Task Force)*. Spine, 1987. 12(7S): p. S16-21.

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# The Source of Spine Care Chaos





# A Game-Changing Discovery in Spine Care

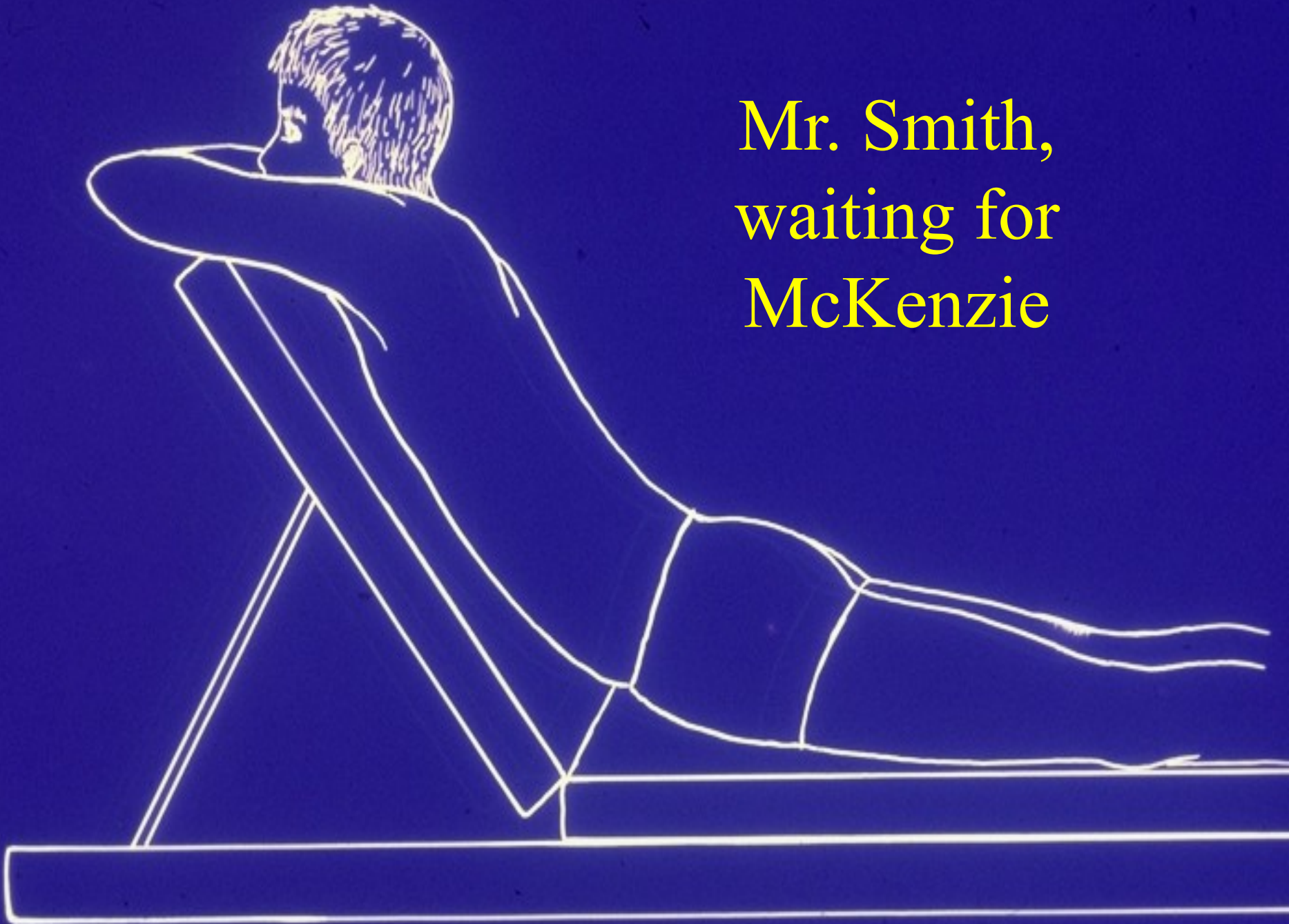
Meet Mr. Smith...  
(Circa 1956)

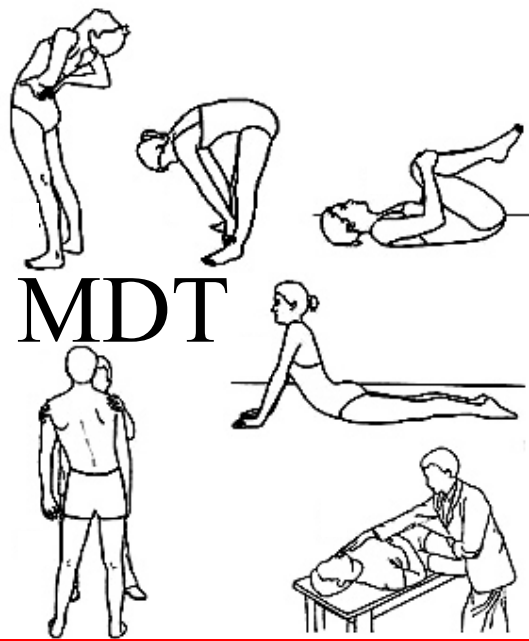


Meet Robin McKenzie



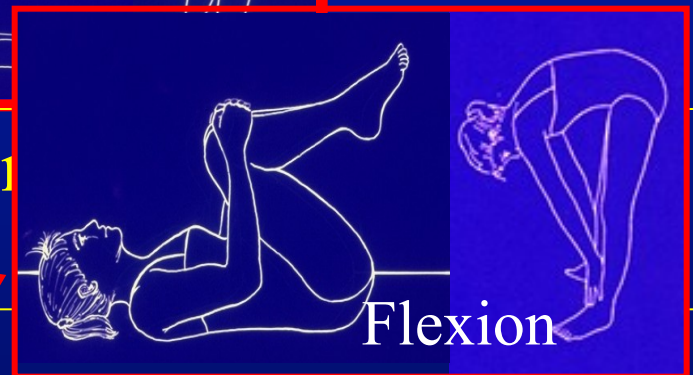
Mr. Smith,  
waiting for  
McKenzie





# Monitor Pain Response Related to Directional Loading Strategies

Key: perform movement to end-range



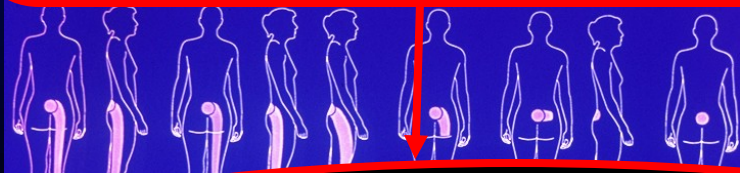
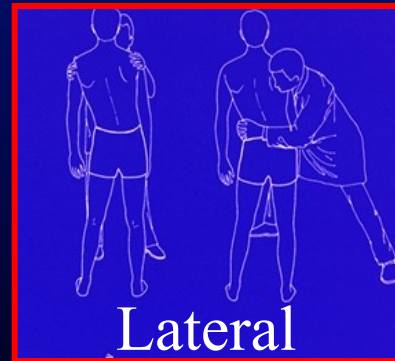
Directional Preference

Single direction

→ Reduce Centralize

Directional Vulnerability

→ Produce Increase Peripheralize



“Rapidly Reversible LBP”



# How common is this “rapidly reversible” condition?

|          |                    |         |
|----------|--------------------|---------|
| Donelson | (Spine 1990)       | 84-91 % |
| Sufka    | (JOSPT, 1998)      | 60-83 % |
| Werneke  | (Spine, 1999)      | 77 %    |
| Karas    | (Phys. Ther. 1997) | 73 %    |

Acute

|          |                          |      |
|----------|--------------------------|------|
| Donelson | (Spine 1991, ISSLS 1991) | 58 % |
| Delitto  | (Phys. Ther. 1993)       | 61 % |
| Erhard   | (Phys. Ther. 1995)       | 55 % |

Chronic  
& Pre-  
Surgicals

|           |                    |       |
|-----------|--------------------|-------|
| Kopp      | (CORR, 1986)       | 52 %  |
| Long      | (Spine, 1995)      | 43 %  |
| Donelson  | (Spine, 1997)      | 49 %  |
| Laslett   | (Spine Jrn1, 2005) | 32 %  |
| Rasmussen | (Spine Jrn1, 2005) | (50%) |

# Rapidly Reversible Subgroup Literature

| Reliability     | Predictive Validity |               | RCTs            | Disc Model     |
|-----------------|---------------------|---------------|-----------------|----------------|
| Spratt - 93     | Kopp - 86           | Karas - 97    | Schenk - 03     | Kopp - 86      |
| Kilby - 90      | Williams - 91       | Donelson - 97 | Fritz - 03      | Donelson - 90  |
| Spratt - 91     | Donelson - 90       | Snook -98     | Long - 04       | Alexander - 92 |
| Riddle - 94     | Donelson – 91       | Sufka - 98    | Brennan - 06    | Spratt - 93    |
| Wilson - 99     | Delitto - 93        | Werneke - 99  | Browder - 07    | Donelson - 97  |
| Fritz - 00      | Spratt - 93         | Werneke - 01  | Kilpikoski - 09 | Snook - 98     |
| Razmjou - 00    | Erhard - 94         | Larson - 02   | Petersen - 10   | Derby - 00     |
| Werneke - 01    | Long - 95           | Oliver 10     | Guzy - 11       | Laslett - 05   |
| Kilpikoski - 02 |                     |               |                 | Scannell - 09  |
| Clare - 04      |                     |               |                 | Alexander - 12 |
| Fritz - 04      |                     |               |                 | Kim - 16       |
| Werneke - 14    |                     |               |                 |                |



Clare

LBP moving  
furniture

Worsened / down leg

PCP → PT

Anti-inflams

MRI

More PT

More PT

2 yrs of anti-inflams

2 yrs of P.T.

Ortho  
Surgery

NS opinion

#2 Ortho  
Surgery

#2 MRI

OOW  
Disabled

“Chronic Pain  
Syndrome”

“Multi-D Activity-  
Based Program”

\$\$\$\$\$

\$\$\$\$\$





lowe

g her “



Provided the opportunity to undergo an MDT examination:

- History: intermittent leg pain, worse w flexion, better w walking
- Exam: slouched sitter w buttock pain; erect sitting eliminated her buttock pain; flexion worsened pain; Press-ups totally abolished pain.

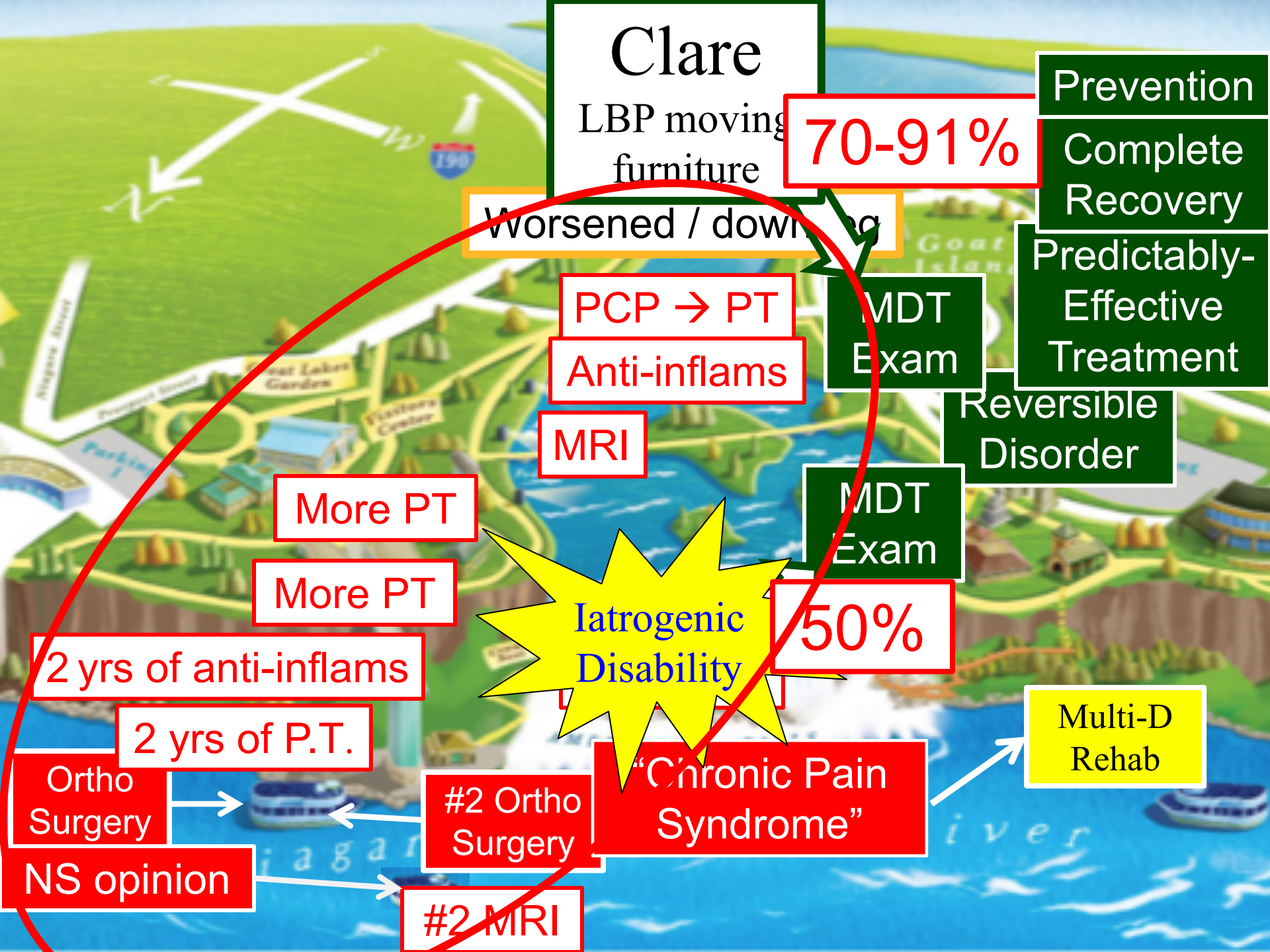
Very impressed / very motivated to follow instructions

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# Clare's Treatment & Outcome

- Instructed to do 10 press-ups 5-6 times/day; frequent standing backbends; given lumbar roll to help with erect sitting
- Returned in 2 days: very compliant; her leg pain of 2 years had stopped.
- Within days, her LBP eliminated; quickly off all meds; soon RTW and all activities.





## Four cohort studies: For “pre-surgicals”, 50% have an undiscovered directional preference and are able to avoid unnecessary surgery

1. Kopp, et al: The use of lumbar extension in the evaluation and treatment of patients with acute herniated nucleus pulposus, a preliminary report. Clinical Orthopedics. 1986.
  2. Donelson, Aprill, et al: A prospective study of centralization of lumbar and referred pain: A predictor of symptomatic discs and anular competence. Spine. 1997.
  3. Laslett, Aprill, et al: Centralization as a predictor of provocation discography results in chronic low back pain, and the influence of disability and distress on diagnostic power. The Spine Journal. 2005.
  4. Rasmussen, et al: Rates of lumbar disc surgery before and after implementation of multi-disciplinary non-surgical spine clinics. Spine. 2005.
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# Integrated Mechanical Care (IMC):

A network of highly-trained MDT clinicians delivering comprehensive MSk care:

High-value:

Continuous quality improvement

Low cost: guaranteed 25% savings

High patient satisfaction

Easily accessed



# TOTAL Direct Cost Comparison For Fortune 500 manufacturer

| LBP Care Type        | Adjusted             |
|----------------------|----------------------|
| Community Cost/Case  | \$1,786.50           |
| Mechanical Cost/Case | \$866.89             |
| Savings/Case         | \$919.61<br>(51.48%) |



# LBP Results

## Utilization of Expensive Procedures

| Procedures       | CC    | MC    | % Change | RR   | p <   |
|------------------|-------|-------|----------|------|-------|
| No. of patients  | 4,601 | 434   | ---      |      |       |
| Advanced imaging | 2.03% | 1.02% | -49.8%   | 1.99 | .0110 |
| Pain injections  | 1.8%  | 1.09% | -39.4%   | 1.64 | .0611 |
| Lumbar surgeries | .74%  | .16%  | -78.4%   | 4.73 | .0153 |



# Indirect Cost Savings?

- Indirect costs: commonly estimated to be 2-4 x direct costs: true savings would be 2-4x direct savings (\$920/case)
- Employer reports that short-term disability duration was reduced by 50% (60days → 30 days)





MIIA is partnering with IMC to bring high-value MSk care to its clients' employees.



For 1,000 covered lives:

300 MSk cases

\$120-160K IMC savings

Guaranteed 25% savings:

If MDT is so good, why isn't it already available in your communities?

1. Follow the money: Rescue operations are lucrative. The more rescue attempts, the greater the income, regardless of the outcome of the care.

*“It is difficult to get a man to understand something when his salary depends upon his not understanding it.”*

Upton Sinclair

**Medicine is far more economic-based than evidence-based.**

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If MDT is so good, why isn't it already  
available in your communities?

2. Clinicians have strong belief systems that justify  
their care.

*"Most men who are capable of understanding difficult scientific, mathematical, or philosophic problems can very seldom discern even the simplest and most obvious truth if it obliges them to admit the falsity of conclusions they have formed, of which they are proud, which they have taught to others, and on which they have built their lives."*

L. G. Tolstoy

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## High Performance Health Care Solutions/Vendors

### Common Characteristics:

High subject matter expertise  
Mission-driven & passionate  
Deconstructed a problem and devised an  
unconventional/innovative solution  
Data-driven / predictable cost-savings  
Confident to go at financial risk for  
performance





# High-performance solutions to lower your health care risk



## Clinical Management:

- Musculoskeletal Disorders
- Cancer Care
- Cardiometabolic Care
- Primary Care
- Narrow High Perf Network
- Surgical Risk
- Allergies
- Dialysis
- Hemophilia
- Nearshore COE for High Intensity
- Acute & Chronic Conditions



# High-performance solutions to lower your health care risk



Financial/Admin Management:  
(No disruption to you or your employees' care)

- Reference-Based Pricing
- Bundled Pricing
- Rx Pricing Optimization
- Rx Formulary Optimization
- Specialty Rx Mgmt
- Imaging Mgmt
- Legal Compliance
- Claim Audit
- Large Claim Resolution
- 2nd Opinion

## Administrative Initiative (no disruption)

- VA company evaluates/analyzes hospital claims for legality vs. illegality (not appropriate vs. inappropriate)
- Illegal examples:
  - billing for retrieving a lost sponge at surgery
  - billing for a service already covered in another billing
- RESULTS: recovers 17-25% of hospital's charges  
// 5-10% of your total H.C. spend



## Administrative Initiative (no disruption)

### Pricing Optimization Analysis for Drugs

- Provide your Pharmacy Benefits Manager with a list of exorbitantly high-priced drugs
- Asks PBM to reduce prices or we'll take our business elsewhere.
- RESULT: 15% decrease in non-specialty drug spend // 2% total health care spend





MIIA is committed to improving the quality while lowering the costs of care across Massachusetts municipalities.

