1. The Issue & Impact: 
   What’s causing us to suffer and how?
   - Impact of Opioid Abuse in the Workforce
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THE ISSUE & IMPACT: WHAT’S CAUSING US TO SUFFER AND HOW?

Every day, millions of Americans wake up, go to work, and live their lives with chronic pain. People who experience pain are less likely to perform well and in turn, employers overspend with every employee that is in need of treatment. White-collar workers spend upwards of 8-10 hours seated at a desk while blue-collar workers exert maximum physical strength for extended periods of time. Consistent physical demands in the workplace adds extra stress to the body and limits the overall well-being and quality of life.

This may affect ones mental and physical health, lifestyle, personal relationships, along with work productivity. Many Americans turn to opioids as a temporary fix for their pain, and quickly find themselves to be another number in the billions the addiction has consumed. People in lower-income communities or rural towns may not have access to the care or resources they need to stay healthy or treat and prevent pain.
IMPACT OF OPIOID ABUSE IN THE WORKFORCE

- Increased medical pharmacy costs for chronic users of opioids: 26%
- Absenteeism or missed work: 16%
- Death of an employee or dependent: 12%
- Positive drug test: 9%
- Impaired or decreased job performance: 7%
- Overdose: 7%
- Increased workers’ compensation claims or costs: 5%
- Employee use of prescription pain relievers at work: 5%
- Borrowing or selling prescription drugs at work: 5%
- Complaints to HR/negative impact on employee morale: 4%
- Employee retention challenges: 3%
- Near miss or workplace injury: 2%
- Arrest (on/off job): 1%

According to the National Business Group on Health, 82% of large employers are concerned/very concerned over inappropriate use/abuse of prescription opioids. Pathway that leads workers to opioid misuse: chronic MSK pain like back and joint pain.

**Top Employer Strategies to Address This:**

- Approve a limited supply (81%)
- Implement CDC prescribing guidelines (56%)
- Cover alternative therapies (32%)
- Ensure coverage of alternative pain management solutions: physical therapy, exercise therapy and acupuncture.
BACK PAIN

- Worldwide, back pain is the single leading cause of disability, preventing many people from engaging in work as well as other everyday activities.²
- Back pain is one of the most common reasons for missed work. One-half of all working Americans admit to having back pain symptoms each year.³
  Back pain accounts for more than 264 million lost work days in one year—that’s two work days for every full-time worker in the country.⁴
- Experts estimate that up to 80% of the population will experience back pain at some time in their lives.⁵
- Back pain is the third most common reason for visits to the doctor’s office, behind skin disorders and osteoarthritis/joint disorders.⁶

OPIOIDS

Every day, more than 130 people in the United States die after overdosing on opioids.¹ The misuse of and addiction to opioids—including prescription pain relievers, heroin, and synthetic opioids such as fentanyl—is a serious national crisis that affects public health as well as social and economic welfare. The Centers for Disease Control and Prevention estimates that the total “economic burden” of prescription opioid misuse alone in the United States is $78.5 billion a year, including the costs of healthcare, lost productivity, addiction treatment, and criminal justice involvement.
TOP DRIVERS
OF RISING HEALTHCARE COSTS

Musculoskeletal is the #1 driver of cost amongst other conditions

- 1 = Highest Driver
- 2 = Second Highest Driver
- 3 = Third Highest Driver
IMPACT OF MSDs

Because of MSDs, millions of people are living with pain, having trouble moving around, or finding it difficult to complete tasks of daily life, often for years and even decades.

Comorbidity¹

MSDs can make other conditions even more difficult to live with, multiplying their impact. e.g: back or knee pain may make it more difficult for people to get the daily physical activity that would help prevent the progression of other chronic conditions such as diabetes or heart disease.

Direct Costs²

- $48,000 - $67,000 per incident
- Responsible for 32% of all worker’s compensation case
- Avoidable surgeries (75%)
- Opioid dependency
- 16-22% employers healthcare budget
- Includes cost within healthcare system (treatments, ER, Rx etc.)

Indirect Costs³

- Lost wages
- Productivity
- Employee turnover
- Absenteeism
- Damages

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² Source: The average claim costs within the OSHA report were provided by the National Council on Compensation Insurance, Inc. (NCCI). The information in the report reflects the average cost of a lost time workers’ compensation insurance claims from unit statistical reports submitted to NCCI for policy years 2007-2009.

³ Source: In the OSHA report, the indirect cost estimates are taken from the Business Round-table publication, Improving Construction Safety Performance, and are based on a study conducted by the Stanford University Department of Civil Engineering.
MSK IMPACTS: MUSCULOSKELETAL DISORDERS ARE COMMON

- More than 1 in 2 adults - 124 million Americans over 18 reported a musculoskeletal medical condition.

- Are often paired with other conditions and diseases affecting health overall

- That exceeds the next two most common health conditions: circulatory conditions (such as heart disease, stroke, and hypertension) and respiratory conditions (such as emphysema and chronic asthma).

- Can be prevented and treated more effectively- often with knowledge and practices that already exist

- Affect all age groups

Musculoskeletal conditions are either the most commonly reported medical conditions (among those under 65) or second most commonly reported (among those 65 and older).

Patients report the high cost of co-pays and deductibles, having to take time off work, find childcare, and the cost (or lack) of transportations as barriers to treatment. SimpleTherapy breaks down these barriers and allows patients to take an early musculoskeletal conservative measure that enables them to overcome chronic pain without drugs or surgery.

We deliver clinically conservative, evidence based care for over 5,500 musculoskeletal ICD-10 diagnostic codes. Care is overseen by clinicians and optimized by artificial intelligence, drawing from our extensive database curated over seven years.

60% of US adults with arthritis are working age (18-64 years old)
+32.4M working adults
+$48.6B direct medical costs
LOWER BACK CASE STUDY

ENGAGEMENT WITHIN 2.5 WEEKS

Exercises completed during study: 504
Sessions completed during study: 24
Exercises called by algorithm: 168
Total engagement time with ST: 408 min

SimpleTherapy Programs Used:
Lower back, Hip, Foot and Ankle

OUTCOME

Within 2.5 weeks of starting SimpleTherapy, the patient reported a decrease of pain.

In conclusion, these are the lessons we learned from this one patient:

- Majority of conditions causing pain are not as significant as this patient
- Patient has pathology that typically requires surgery to stabilize
- This is a self-intervention completely outside the traditional healthcare system
- The system makes consistent, objective, data-driven decisions for patient
- This data from these decisions is changing our understanding of these pathologies

PATIENT:
Age: 54
Gender: Female
Pain History: Lower Back pain lasting over 3 years
Pain before ST: Severe 8/10
Most pain in lower back, and leg, some in knees and feet
Solution: Requires surgery followed by Physical Therapy

*Study conducted in 2018 by Dr. Nic Gay*
WHAT IS SIMPLETHERAPY?

SimpleTherapy is the world’s first online alternative to physical therapy. It is the most effortless musculoskeletal care experience that is clinically driven, customized for each user, and offers 24/7 resources.

SimpleTherapy is a smart application that combines physical therapy with machine learning and expert health coaching to create the easiest and most clinically focused solution in the market for musculoskeletal disorders. The program mimics the thinking of a physical therapist in realtime to augment care based on each user’s unique pain characteristics. SimpleTherapy provides head-to-toe care and has been independently validated to prevent surgeries, decrease opioid dependency, provide instant access of care, and facilitate interoperability as the first step in the therapeutic process.
HOW DOES SIMPLEX THERAPY WORK?

Research demonstrates that most MSK-related conditions can be managed or eliminated through the use of early, conservative measures such as exercise therapy.
Designed by physicians using the same methodologies applied in a clinical setting, we mimic the clinical decision-making of a physician in the moment care is needed. After a few initial questions to active a personalized exercise therapy program, it leads right into 15 minute video sessions with easy-to-follow instructions and coaching. After each session, the patient tells us how the exercises felt. SimpleTherapy has the ability to instantly and accurately optimize your care pathway using artificial intelligence and drawing from our extensive database.

The platform adapts to users’ unique circumstances, abilities and personal goals. Their plan is optimized based on the feedback they provide after each session.

Patients have the ability to complete the exercises at their own pace from the comfort of their own home.

Without a SimpleTherapy Membership, patients will experience pain and consult a PCP. Pain remains, and no intervention occurs. Reasons employees don’t relieve pain include inability to leave work for physical therapy, cost prohibits, unavailable appointments, or far drives. Over time, the pain then worsens and becomes chronic. The patient sees a specialist, gets an MRI and potential to be given opioids. Patient opts for surgery, and pain stops. Physical therapy is prescribed for six weeks to six months.
With a SimpleTherapy membership, pain starts and the patient chooses our online pain program. The member starts using SimpleTherapy and feels better after just two sessions.

SimpleTherapy offers a cost-effective MSK solution that combines physical therapy with artificial intelligence to bring you a pain recovery program that can be done at home and at a fraction of the cost. We are proud to have thousands of users across the world of which 72% report a significant reduction in pain. Too, SimpleTherapy is a valuable partner to decrease healthcare costs for costs for insurance payers and Fortune 100 employers.

SimpleTherapy is used by leading organizations to help their employees feel great so they can do what they love to. We are trusted by leading health plans to help their population feel great to ensuring their optimal health and well-being.