

# Total Worker Health:

## Toward a New Integrated Risk Management/Wellness Model

### Topics Covered:

- Total Worker Health: Moving from Risk Management to a TWH Model
- Pain Management: The Missing (and Connecting) Piece
- Integrating Pain Management into Total Worker Health

### Abstract:

An ideal workplace ensures that workers are healthy and operating in safe and secure environments; Human Resources (HR) drives the former (wellness), while the risk management and/or EHS (environmental, health and safety) team drives the latter (occupational safety). Integrating both “disciplines” within a more “holistic framework” enables organizations to both create optimal work conditions and advance worker well-being – This is the foundation on which Total Health Management operates. The integration of the disciplines results in simultaneously reducing workers’ compensation and healthcare claims, while increasing productivity.” The broad appeal and application of a comprehensive pain management program has the potential to engage a large segment of the workforce, and provide companies with an onramp toward Total Worker Health (TWH).

## I. Introduction

An ideal workplace ensures that workers are healthy and operating in safe and secure environments. Risk management and employee wellness – the two disciplines that promote these outcomes– are fundamentally different in orientation and approach. The risk management (and EHS) side of the house focuses on occupational health and safety. It primarily addresses how employees interact with their workplace environment, by identifying, preventing and/or mitigating the “harms” that stem from the work itself. The wellness side (i.e. Human Resources) focuses instead on common conditions and risk factors, such as heart disease, smoking, and obesity. It serves the company by providing tools, direction and incentives to change unhealthy to healthy behaviors, and by reducing absenteeism and presenteeism and increasing morale and overall productivity. In sum, HR focuses on reducing healthcare costs, while risk management looks to reduce workers’ compensation costs.

These parallel tracks are in reality two sides of the same coin: both are about containing costs, removing the impediments to employee performance and productivity, ensuring the safety and well-being of every employee, and protecting the financial health and reputation of the company. The premise of this paper is that these two different disciplines can and should be integrated, giving organizations the best of both worlds. Indeed, such an integrated model exists: Total Worker Health (TWH), which the Center for Disease Control defines as follows:

**The CDC defines Total Worker Health® as “Policies, programs, and practices that integrate protection from work-related safety and health hazards with promotion of injury and illness prevention efforts to advance worker well-being.”**

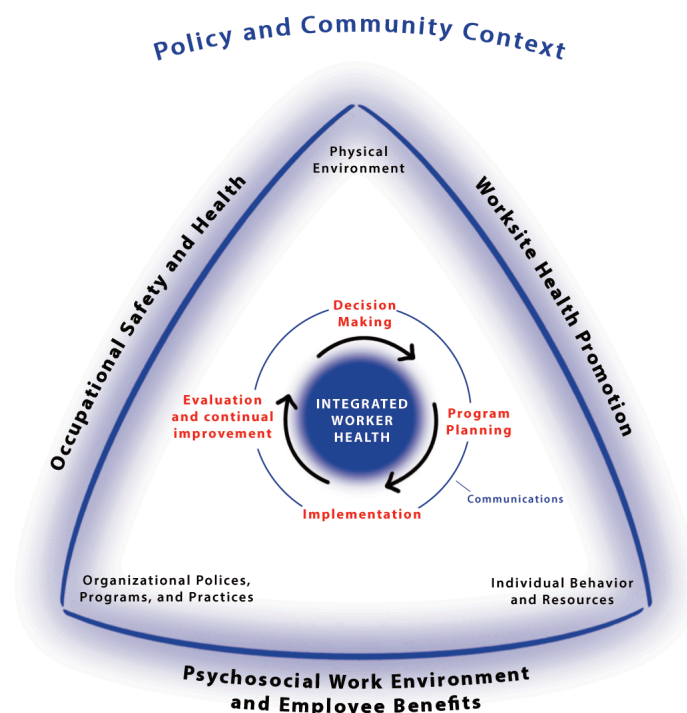
Traditional occupational safety and health protection programs have primarily concentrated on ensuring that work is safe and that workers are protected from the harms that arise from work itself. TWH builds on this approach by recognizing that work is a social determinant of health. Job-related factors such as wages, hours of work, workload and stress levels are for the most part constant within professions. Interactions with coworkers and access to leave and healthful workplaces are more varied from one workplace to another. All can have an important impact on the well-being of workers, their families, and their communities. TWH explores and uncovers opportunities to not only protect workers, but also advance their health and well-being by targeting working conditions.

This White Paper will discuss the benefits of integrating risk management and wellness, elaborate on the TWH model, address the importance of pain management in the context of the risk management/wellness “continuum”, and explore the need for “both sides of the house” to come together in developing and rolling out an effective TWH program.

## II. Total Worker Health: Moving from Risk Management to a TWH Model

Given the “state of play” described above, it is no surprise that risk management and wellness have traditionally been two different job functions, and that people in these areas seldom cross paths. From the CFO’s viewpoint, employee wellness is a risk management tool to the extent that they understand what a big gamble employers take when they have unhealthy employees and unsafe environments. They can recite the precise numbers paid out in

medical and workers’ compensation claims. From HR’s standpoint, employee wellness is a business strategy for maintaining a prepared and focused workforce. The desired outcomes are reduced absenteeism, presenteeism and turnover, improved morale, promotion of company culture, etc.



From SafeWell Practice Guidelines: An Integrated Approach to Worker Health Version 2.0, Harvard School of Public Health Center for Work, Health and Well-being.

While there’s been an understood wall between the risk management and wellness practices, for all practical purposes they are perfectly complementary. Poor employee health negatively affects employee productivity, health insurance costs, and workers’ compensation expenses. A wellness program in principle reduces risk in all of these areas.

Wellness programs have emerged and been embraced by HR in recent years as a way to reduce medical costs and absenteeism. Typical programs included weight loss competitions, daily step programs to achieve healthy milestones, or smoking cessation assistance. Eventually, these programs went on to include “gamification” and mHealth apps. Informed CFOs and risk managers saw the correlation to a healthier workforce less prone to injury, and HR managers too have come to realize the correlation of wellness to workforce morale, company culture, and productivity. The TWH model calls for a holistic understanding of and approach to the factors that contribute to employee well-being. Scientific evidence supports what many safety and health professionals, as well as workers themselves, have long suspected—that risk factors in the workplace can contribute to health problems previously considered unrelated to work.

By joining together occupational health and safety initiatives with workplace wellness programs, organizations can – per the TWH model – improve employee health and morale, reduce medical plan costs, increase productivity, and reduce the frequency and severity of workers’ compensation claims.

### III. Pain Management: The Missing (and Connecting) Piece

When it comes to health risk management and wellness, areas of focus are typically fitness, nutrition, safety, and stress. It seldom includes pain management or pain mitigation. Today, wellness programs incorporate these elements, extending to far-reaching self-help subjects like resilience and mindfulness, all routed to one principle goal: changing unhealthy behaviors into healthy behaviors. Many employers today offer health risk assessments to employees to target their specific health problems.

The Integrated Benefits Institute estimates that the true cost of poor health to the U.S. economy is \$576 billion, as detailed in the chart below.

<b>COST</b>	<b>\$ BILLIONS</b>
Wage Replacement (incidental absence due to illness, workers' compensation, short-term disability, long-term disability)	\$ 117
Medical and Pharmacy (workers' compensation, employee group health medical treatments, employee group health pharmacy treatments)	\$ 232
Lost Productivity (absence due to illness, presenteeism)	\$ 227
<b>TOTAL</b>	<b>\$ 576</b>

Source: Integrated Benefits Institute

Because pain management is not typically a wellness "deliverable" the productivity losses often go unreported. When poorly performing employees try to work through recurrent pain – which is to say, unaddressed and/or untreated pain – there is amounting prevalence and cost burden of musculoskeletal pain. The World Health Organization's global initiative, International Bone and Joint Decade 2000-2010, reports that musculoskeletal conditions are the most common cause of severe long-term pain and the most costly of all disease categories, accounting for one-fourth of the total global cost of illness. It is further recognized that musculoskeletal injuries constitute the vast majority of occupational injuries and illnesses.

Workers across industries experience various levels of pain, generally from musculoskeletal disorders (MSDs) or injuries. According to The Burden of Musculoskeletal Diseases in the United States: Prevalence, Societal and Economic Cost by The Bone and Joint Initiative USA, MSDs affect 25.5 million people in the US, most commonly in the back, neck, and upper limbs. They account for 29% of all US workplace injuries and one third of all workers' compensation claims. MSD's directly cost companies \$20 billion per year, with the indirect costs at five times

that number. While other injuries require about eight days away from work, MSDs require an average of eleven days away from work. MSDs can include carpal tunnel, tendinitis, strains, or injuries. New hires in the first 90 days are the most likely to incur injuries or sore muscles, though even seasoned employees can suffer. MSDs alone will frequently lead to absenteeism or presenteeism, diminished morale and may eventually result in employee turnover. It is therefore prudent to ensure that health and wellness resources incorporate programs to prevent injury and reduce or eliminate pain.

Occupational injuries cost hundreds of billions a year. Suffering pain too – whether from MSDs, injuries, or health – has far-reaching effects on companies. It often leads to presenteeism, absenteeism, decreased morale and reduced productivity.

Some studies estimate that presenteeism costs US employers between \$150 billion and \$250 billion per year. According to a 2016 report by Global Corporate Challenge (GCC), employees admitted to being unproductive 57.5 working days of the year, meaning employees are fully productive only 75% of the time.



EHS Today

When the pain is too debilitating, employees miss work entirely. According to the CDC Foundation, Absenteeism is also estimated to cost US employers around \$150 billion per year.

## Continuum of Pain



Pain exists on a continuum that represents the gradual changes in intensity. People will generally start off with no pain at all, but eventually they may start to notice some mild

discomfort after sitting at their desk too long. It gradually progresses from moderate to constant to a severe, chronic pain that desperately needs attention.

- No Pain
- Mild Discomfort
- Moderate Soreness
- Constant Aching and Stiffness
- Constant Nagging Pain
- Severe Chronic Pain

With proper care, the pain will gradually decrease back down the spectrum, ideally reaching the “No Pain” zone once more. But the longer the pain is left to fester, the more care it will require to get back to normal. Regardless of what has caused the pain, the workplace is affected. Addressing pain issues at the earliest stages within the pain continuum is the most cost effective and typically resolves quickly.

#### **IV. Integrating Pain Management into Total Worker Health**

Pain management sits at the intersection of risk management and wellness – the two pillars of the TWH model. Indeed, pain management programs have historically been positioned and offered as a risk management strategy, but as this paper argues, they also comfortably fit within the traditional wellness framework. Thus, it is an ideal pivot from one to the other, and a natural first step toward a more fully evolved and more broadly integrated TWH program.

To the extent that pain management is a path to TWH, organizations must first know what to look for in a proactive pain management program. The program must, at a bare minimum, encompass a comprehensive set of wellness and prevention initiatives (executed at the workplace) that deliver bottom line results for the customer. In evaluating the historical efficacy of the program, HR and risk managers need to review key performance indicators (KPIs) such as the degree of pain level and frequency reduction, lowered/eliminated medication use, and increases in productivity. TWH programs should answer directly: How does implementation correlate to reduced absenteeism and presenteeism, and self-reported improvements in job performance? The program also must show the money in claims it has averted. Utilization figures are also key, as the program ought to demonstrate an ability to engage employees in activities that address, mitigate and even reduce their pain, thus maximizing their own health and well-being.

Such programs grow rapidly as employees and employers experience their value, and become sustainable as the employer embraces the business case for their existence. Although wellness and risk management programs vary, a comprehensive program ought to encompass early intervention and prevention of injuries; muscular pain management; headache prevention and relief; back pain management; and employee stretching and self-care to promote a healthy, happy workforce.

## Early Stage Intervention – Treatment Cases

### 1. San Joaquin County:

DORN conducted analyses of the treatment costs for soft tissue work-related injuries, first via the Historical Workers Comp program in place, then via DORN's PainFree™ program. Employees were referred by the county occupational medicine physicians. (San Joaquin Counties workers compensation insurer provided all the data.) The study tracked 111 employees treated.

#### PER CLAIM COSTS

Historical Workers Comp per claim cost  
using traditional clinical treatment was: \$8,500

While lost time from work (travel) per  
claim with traditional treatment came to: \$ 825

Total per claim treatment cost using  
traditional clinic: \$9,325

Bringing traditional treatment costs  
(111 claims x \$9,325 per claim)  
potentially to a total of \$1,035,075

By comparison, the PainFree Program in 2004-05, yielded the following results:

#### DORN PAINFREE PROGRAM

San Joaquin County Average cost  
per treatment using DORN PainFree was: \$ 855  
with zero dollars lost time per treatment  
(DORN treatment provided onsite)

The PainFree program which treated  
111 employees x \$855 per treatment = \$94,905

Total Savings using PainFree  
program which treated 111  
averted work comp claims = \$940,170

Savings per claim using PAINFREE  
instead of traditional clinic = \$ 8,470

Cost savings using the PainFree program is about 90% compared to the traditional treatment cost.

## 2. State of Colorado:

Results of this study were presented to the head of the Dept of Risk Management for the State of Colorado. The information was furnished by Pinnacol Assurance, the insurance carrier. DORN had worked on 1461 soft tissue injuries that could have become workers' compensation claims.

### SOFT TISSUE WORK COMP POTENTIAL CLAIMS

Average cost per treatment with DORN: \$ 436

The Average cost for clinical treatment of these type of potential claims: \$3,126

A savings of \$2,690 per averted claim or

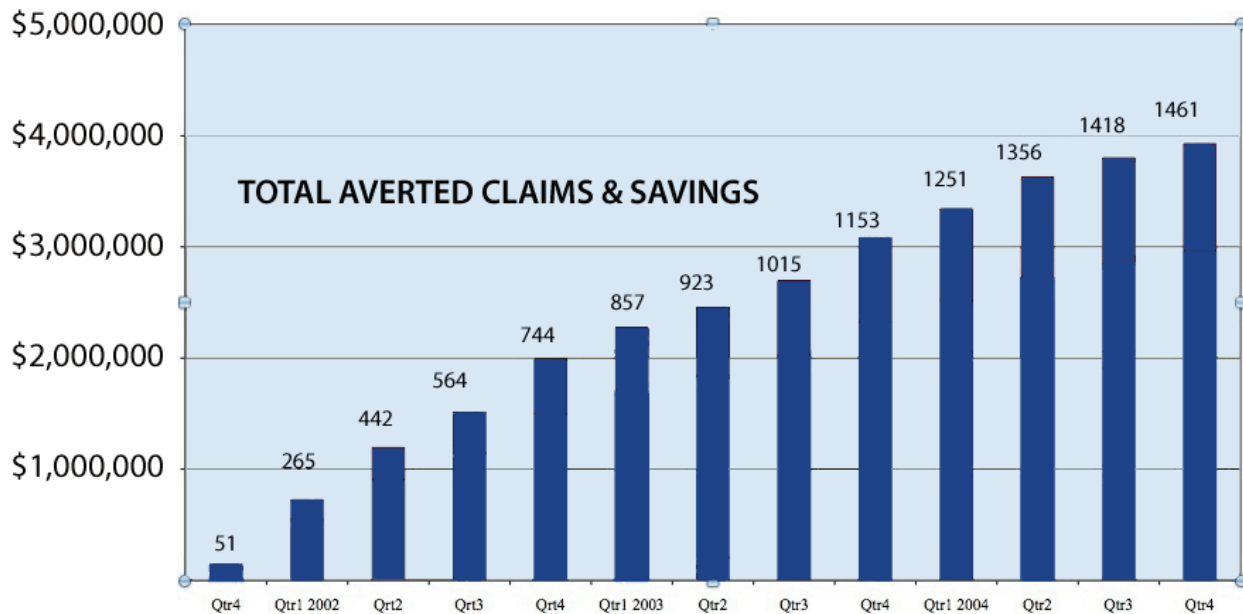
A total saving of \$3,930,000 over the 2½ year period

### Cumulative PainFree Program Savings State of Colorado 2003-2005

Average saving \$2,690 per potential claim,  
Total cost avoidance savings \$3,930,000

Study results show that employees who received intervention therapy were treated at a significantly lower cost to the organization than previous historical costs and is effective in mitigating the costs of workers' compensation claims and costs through early intervention and treatment of employee injury and pain.

Cumulative DORN Program Savings





When employees are at work, pain prevents them from being as productive as they can be. If they miss work due to the pain, employees often rush to catch up once they return. In an effort to relieve the pain and be able to keep working, many employees turn to medications which can cause additional problems.

Since these studies were conducted, organizations such as Tempur Sealy, Macy's, Intel, UCSD, Johns Manville, Yuma County Arizona, Saint-Gobain, and others have embraced pain management and the concept of linking pain management with Total Worker Health. Yuma County has received national awards for their DORN program, including the 2016 PRIMA National Conference Awards. In March 2016, Fortune Magazine covered some 17 Companies among others offering some form of pain management treatment to their employees, including Cisco Systems, First American, PwC, SAS, and World Wide Technology, Inc.

### Turnover – the Hidden Cost of Non-Intervention

"The costs of employee turnover can be staggering, ranging anywhere from 1/2 to 5 times an employee's annual wages dependent upon his or her position."

- *The Real Costs of Employee Turnover by the Rainmaker Group*

"Turning over one employee can cost around 1/2 of a low-skilled hourly workers annual wages plus benefits, while losing a member of C-Level upper management can cost 3 to 5 times his or her annual wages and benefits."

- *The Real Costs of Employee Turnover by the Rainmaker Group*

As mentioned earlier, MSDs can be a big factor in employee turnover. On-site treatment therapy can help immensely by immediately addressing muscular pain, strains, and injury. On the other hand, when an employee does have a more serious injury, it is also important to have a good return-to-work program ready. Both of these steps will ensure that employees are well cared for and valued in the company.

Clearly, the loss of a valued employee whatever the cause is costly. But injuries, chronic pain, repetitive motion aches and strains, if left untreated, exact costs in the way of diminished capacity and/or morale that can be as high over time as the hard and "hidden" costs of turnover. An employee remaining with the company while experiencing pain is a steady drain on resources and productivity for as long as that employee remains on the job. Pain emanating from chronic or lingering injuries needs professional intervention and involvement. By treating the pain comprehensively or applying interventional pain techniques, nagging injuries or pain can be remedied or reduced to increase the productivity of suffering employees. All of this ought to be considered when evaluating a pain management program.

Beyond the mechanics of the TWH model, engaging the workforce around it will be a challenge. Improving employee engagement generally is difficult; engagement around

wellness has been a particularly steep challenge, in part because the programs appeal to segments of the workforce. For instance, initiatives intended to increase exercise, improve nutrition, stop smoking, or alleviate depression are pressing issues to some, but are not relevant to all – even a majority – of the workforce. Pain, on the other hand, is experienced in different degrees and in different ways by a large segment of the workforce – from back pain to carpal tunnel syndrome to persistent headaches. The broad appeal and application of pain management can be a powerful entry point for engaging a broader swath of the workforce, giving the organization a better chance of identifying or engaging at-risk members of the workforce and providing employees with a welcoming on-ramp for TWH.

## Conclusion

Today, healthy employees are expected to be more focused and productive. To this purpose, employers who already offer wellness programs are getting more sophisticated in their offerings. The market teems with wellness vendors offering engagement platforms, incentive/rewards programs, and mHealth apps that measure everything from movement to moods. Programs today extend to mindfulness and sleep management. While few include interventional pain management, these and others will surely become new focal points of an integrated, holistic, health risk management/wellness program.

A vibrant workplace at a minimum ensures that workers are both healthy and operating in safe and secure environments. Integrating risk management and wellness into the TWH model delivers the following benefits:

- Reducing the frequency and severity of workers' compensation claims
- Reducing medical plan costs
- Boosting employee morale
- Improving employee health
- Increasing productivity

AON Hewitt, an HR, consulting and benefits programs firm that once housed risk management and wellness in separate silos has now moved to operating both under the same umbrella. According to Jim Winkler, AON Hewitt's chief innovation officer for health care, "Employers are increasingly understanding the connectivity between health benefits. Absence management programs, safety management programs, all those things are increasingly interconnected. You may see a wellness program that is focused on reducing workers' compensation claims, which is a space we've traditionally kept separate."

Organizations need to treat occupational health and safety and wellness as one; they should no longer be mutually exclusive. Conceptually, this shouldn't be hard to grasp as healthcare events are by their very nature risk-related. From emergency preparedness through event and incident management, an organization must constantly identify and evaluate risks as they affect the workforce and the company's financial health and reputation. The delivery of

mental and physical healthcare, insurance and claims management to ensure compliance are no less important.

The functions risk managers, EHS professionals and HR perform are ultimately determined by the specific organization, its culture, its workforce, and its business challenges. There isn't a one-model-fits-all risk management, wellness, or TWH solution. Beyond the complexities of designing and deploying a truly integrated TWH program is developing an effective mix of engagement incentives, and ongoing evaluation and refinement. Pain management has a powerful role to play in ultimately realized company short and long-term goals.

Moving toward and ultimately implementing the TWH model mitigates risk and maximizes rewards in the form of improved employee performance and productivity. The reduction and elimination of "pain points" (literally and from a business standpoint) will enable today's most dynamic, agile companies to field a prepared, focused and competitive workforce.

Achieving Total Worker Health is a process, requiring a new set of parameters and a higher regard for integration among its components. DORN brings proven expertise on weighing and implementing pain management as a vehicle to assist company risk managers while realizing the well-being goals of the entirety of employees and staff who face current and would-be health challenges. Finding the balance is key to retaining of talent, keeping HR in the black and the continuing success of your enterprise. For a DORN consultation to evaluate where your business may be at risk and where employee wellbeing may be fully addressed, contact: [Sales@DORNcompanies.com](mailto:Sales@DORNcompanies.com).

## About DORN

DORN was founded in 1998 to help employers save money on workers' compensation claims and reduce OSHA recordables. DORN provides highly skilled manual therapists to work on site and treat employees with workers' compensation claims. In the mid 2000s we expanded our business model to include an early intervention/prevention approach. We now treat employees with pain before they develop an injury and file a workers' compensation claim. The vast majority of these employees are relieved of pain over a series of DORN therapy sessions, and never escalate to file a claim or require other treatment modalities.

Today, due to the success of the therapy and a shift of focus to early prevention and intervention, the DORN programs have organically expanded into proactive wellness benefits. Delivering quality care and outcomes for employees translates to measurable bottom line results for employers. Our mission is to create, implement, and manage healthcare solutions that empower individuals and organizations to improve and sustain optimal health, well-being and quality of life.