(DRAFT MANUSCRIPT FOR REVIEW)

Preventing Needless Work Disability by Helping People Stay Employed

A White Paper on the
Stay-at-Work / Return-to-Work Process

by

Jennifer Christian, MD, MPH; Douglas Martin, MD; David Brown, MD;
Alan Colledge, MD; Constantine Gean, MD, MS, MBA;
Elizabeth Genovese, MD, MBA; Natalie Hartenbaum, MD, MPH;
Michael Jarrard, MD, MPH; Michel LaCerte, MD;
Gideon Letz, MD, MPH; Loren Lewis, MD, MPH;
Robert MacBride, MD, DOHS; Michael McGrail, Jr., MD, MPH;
J. Mark Melhorn, MD; Stanley Miller, DO, MPH; James Ross, MD;
Marcia Scott, MD; Adam Seidner, MD, MPH; James Talmage, MD;
William Shaw, MD; C. Donald Williams, MD; David Siktberg, MBA

April, 2006

TABLE OF CONTENTS

Feedback on this draft manuscript is welcomed. To contact the authors, send an email to jennifer.christian@webility.md or telephone 508-358-5218.

Preventing Needless Work Disability by Helping People Stay Employed

A White Paper on the Stay-at-Work / Return-to-Work Process

EXECUTIVE SUMMARY

As physicians our fundamental precept is "first, do no harm." However, we see daily the contrast between well- and poorly-managed health-related employment situations and the harm that results. Identical medical problems end up having very different impacts on people's lives. The differences in impact cannot be explained by the biology alone. We know that much work disability is not required from a strictly medical point of view. We see devastating psychological, medical, social, and economic effects caused by unnecessarily prolonged work disability and loss of employability. We also see wasted human and financial resources and lost productivity.

Finding better ways of handling key non-medical aspects of the process that determines if an injured or ill person will stay at work or return to work will improve outcomes. Until now, the distinct nature and importance of the stay at work and return to work process (SAW/RTW) has been overlooked. Improvements to that process will support optimal health and function for more individuals, encourage their continuing contribution to society, help control the growth of disability program costs, and protect the competitive vitality of the North American economy.

The first half of our white paper provides the groundwork for readers to understand the second half. Most importantly, the first half describes the SAW/RTW process, how it works and how it parallels other related processes. The second half discusses factors that lead to needless work disability and what can be done about them. Sixteen sections with our observations and specific recommendations are grouped under these four general recommendations:

1. Adopt a disability prevention model.
2. Address behavioral and circumstantial realities that create and prolong work disability.
3. Acknowledge the powerful contribution that motivation makes to outcomes and make changes that improve incentive alignment.
4. Invest in system and infrastructure improvements.

A group of 21 physicians[1] has prepared this report because we feel compelled to speak. The insights we have gleaned about the preventable nature of much work disability must be shared. Our primary goals at this time are to draw attention to the SAW/RTW process and shift the way many people think. Our intent is to open a dialogue with all stakeholders in the workers' compensation and non-work-related disability benefits systems: employers, unions, working people, the insurance industry, policymakers, the healthcare industry, lawyers, and healthcare professionals, especially all physicians. We invite all of you to work with us towards solutions.

---

[1] Seven medical specialties are represented in our group: emergency medicine, family practice, internal medicine, occupational medicine, orthopedics, physiatry, and psychiatry. Eleven of us have additional post-graduate degrees. We are in private medical practice, government, academia, heavy industry, as well as workers' compensation and disability insurance companies. We work in Canada and 15 of the United States. We are all members of the American College of Occupational and Environmental Medicine. This manuscript was developed without any outside financial support.

1

LIST OF AUTHORS AND THEIR AFFILIATIONS

Lead Author
Jennifer Christian, MD, MPH
President/Chief Medical Officer
Webility Corporation
Wayland, MA 01778

David Brown, MD
Clarke, Brown Associates Ltd
Toronto, Ontario M5H 2W9 Canada

Alan Colledge, MD
Medical Director
Utah State Industrial Com
Salt Lake City, UT 84114-6610

Constantine Gean MD, MS, MBA
VP/LMD Chief Medical Officer
UnumProvident - GCCC
Glendale, CA 91203

Elizabeth Genovese, MD, MBA
Medical Director
IMX
Bala Cynwyd, PA 19004

Natalie Hartenbaum, MD, MPH
Chief Medical Officer
Occumedix
Dresher, PA 19025

Michael Jarrard, MD, MPH
Medical Officer
BNSF Railway
Fort Worth, TX 76161-0033

Michel LaCerte, MD
London, Ontario, Canada

Gideon Letz, MD, MPH
Medical Officer
State Compensation Ins Fund
San Francisco, CA 94103

Loren Lewis, MD, MPH
Site Medical Director
AdvanceMed Hanford
Occupational Health Svcs
Richland, WA 99354

Robert MacBride MD, DOHS
Vice President, Medical Services
Prudential Disability Insurance
Livingston, NJ 07039

Douglas Martin, MD
St Lukes Occ Health Svcs
North Sioux City, SD 57049

Michael McGrail, Jr, MD, MPH
Occupational Medicine Residency
Dept of Occ Med
Regions Hospital
St. Paul MN 55101

J Mark Melhorn, MD
The Hand Center
Wichita, KS 67208-4510

Stanley Miller, DO, MPH
Group Med Dir - Powertrain
General Motors Corporation
Pontiac, MI 48340-2925

James Ross, MD
Corporate Medical Director
Ashland Oil Inc
Ashland, KY 41114

Marcia Scott, MD
Cambridge, MA 02138

Adam Seidner, MD, MPH
National Medical Director
Travelers Property/Casualty
Hartford, CT 06183

James Talmage, MD
Medical Director
Occupational Health Center
Cookeville, TN 38501

William Shaw, MD
Integrated Health Management
Denver, CO 80210

C. Donald Williams, MD
Yakima, WA 98901

David Siktberg, MBA
Webility Corporation
Wayland, MA 01778

1

Preventing Needless Work Disability by Helping People Stay Employed

A White Paper on the Stay-at-Work / Return-to-Work Process

OVERVIEW

The fundamental questions this paper is designed to answer are these:

1. Why do some people who develop common everyday problems like backache, wrist pain, depression, fatigue, and aging have trouble staying at work or returning to work?
2. How can employers and insurers work more effectively with healthcare providers to reduce the disruptive impact of injury, illness and age on people's daily lives and work, and help them remain fully engaged in society as long as possible?

This white paper is the end product of extensive and vigorous deliberation by the 21 physician authors. We used a collaborative and consensus-seeking process to develop the observations and recommendations.

In order to build a more profound awareness among all stakeholders that collaboration is required to make the SAW/RTW process work better, we request that you read our report in its entirety. Every stakeholder will be more familiar with some parts than others, so we suggest that you focus on the portions with which you are less familiar.

The white paper begins with an introduction that describes the growing pressures in North America caused by an aging workforce, rising medical costs and lengthening periods of disability. Next comes the background section that defines key terms like "disability" and "disability benefits systems" and the SAW/RTW process, and describes in very broad terms how malfunction of the SAW/RTW process is causing harm to the health and well-being of the same people that these systems were designed to protect – and harm to their families, employers, communities, and society as a whole. Lastly, the background materials explain why we chose to develop this report.

The third section describes in detail how the SAW/RTW process works by using a simple case example. There are two tables: one that shows how the process can escalate and increase in complexity through a series of iterations due to circumstances; and a second one with examples of different kinds of medical conditions that have very different impacts on function and work over time. Next the relationship of the SAW/RTW process to four other parallel processes is described. Three are much more well-known and studied; the other has been studied in academia but largely ignored by disability benefits programs. The failure to distinguish among these separate processes underlies much current system dysfunction. These four other processes are:

- The ill or injured individual's personal adjustment (coping) process.
- The medical care process.
- The benefits administration process.

- The reasonable accommodation process under the ADA.

The second half of the paper consists of observations and recommendations about the current status of and potential improvements to the SAW/RTW process in North America today. Sixteen specific recommendations are described in groups under the four general recommendations. Each of the16 specific recommendation sections:

- Identifies specific challenges and non-medical factors that now combine to create needless disability and its negative consequences.
- Recommends ways that many of the issues can be addressed.
- Points out initiatives underway and best practices in preventing needless disability among working people who are faced with injury or illness.

The major points and recommendations made in this white paper are:

I. Adopt a disability prevention model.

- Legislators, regulators, policymakers, and benefits program designers should address the reality that much work disability is preventable, and that successful SAW/RTW requires collaboration among several parties.
- Shift the focus of the SAW/RTW process away from certifying or evaluating work disability towards preventing it. Unless complete work avoidance is medically-required for healing or for protection of the worker, co-workers or the public, we should be looking for ways to prevent or reduce absence from work. Expecting and allowing people to contribute what they can at work and keeping them active as productive members of society is good for them -- and for us all.
- Instill a sense of urgency to normalize daily routine because prolonged time away from work is often harmful. In only a few weeks, most people make adjustments and adopt a new view of themselves and their situation. Some people begin to think they are permanently disabled regardless of the medical facts. Once that idea is implanted, it is hard to shake.
- Employers, unions, and insurance carriers should devote more attention and resources to preventing disability by focusing on the “front end” of disability episodes while the window of opportunity to make the most difference is still open. In practice, this means ensuring that the right things happen during the first few days and weeks of work absence. Injured / ill workers should routinely receive the support and services they need to get their daily lives back to normal as soon as possible.

II. Address behavioral and circumstantial realities that create and prolong work disability.

- Acknowledge and address people’s normal human reactions to illness and injury. Life disruption may be significant and hard for some to cope with. Failure to acknowledge this distress or offer help breeds trouble. Common courtesy may be all that is needed.
- Rather than ignore them, investigate and address social and workplace realities. Scientific research shows that workplace factors like job dissatisfaction or poor job fit have a powerful effect on disability outcomes. Despite reluctance to intervene, some issues can be readily resolved once brought to the surface.
- Reduce distortion of the medical treatment process by hidden financial and legal agendas. A physician who is kept in the dark is not necessarily more independent, and is vulnerable to manipulation.

- Find a way to effectively reduce disability due to psychiatric conditions, whether occurring in isolation or in combination with physical ailments. Do so in a manner that avoids creating more harm and pouring resources into ineffective physical or mental health treatment.

III. Acknowledge the powerful contribution that motivation makes to outcomes and make changes that improve incentive alignment.

- Pay doctors for disability prevention work in order to increase their commitment to it.
- Support appropriate patient advocacy by getting treating doctors out of a loyalties bind. Stop asking treating doctors to "certify" disability or to set a return to work date. Instead ask them about functional ability (unless there is a clear reason why it would be medically-inappropriate for the worker to do all work of any kind.)
- Increase availability of on-the-job recovery and transitional work programs. Make it faster and easier to arrange permanent job modifications since workers who stay active during recovery have better outcomes. Requirements or incentives for employer participation will be required.
- Good faith efforts should be required of the patient / employee, the doctor, and the employer to prevent or mitigate disability.
- Reduce cynicism and improve customer service to injured and ill employees by being more rigorous, more authentic and helpful, fairer, and kinder.
- Restore integrity to programs rife with minor abuse. Make people aware how minor benefits abuse breeds still more abuse and cynicism that in turn leads to negative and prejudicial treatment of innocent people.
- Devise better strategies to deal with bad faith behavior / exploitation / fraud. In particular, provide workers who believe they need help with alternatives to lawyers.

IV. Invest in system and infrastructure improvements.

- Programs are needed that will provide basic training to practicing clinicians on why and how to prevent disability, as well as why and when to disqualify patients from work. This education should encourage physicians and other healthcare professionals to broaden the focus of their care to include disability prevention and to develop clinical skills in this arena.
- Disseminate the scientific evidence regarding the benefit of staying at work and being active on recovery and preserving function. Doctors, patients and employers all need to know this.
- Improve information exchange between employers / payers and medical offices.
- Improve and standardize the methods and tools that provide data for SAW/RTW decision-making.
- Increase the study of and knowledge about the SAW/RTW process. Policymakers, government agencies, labor organizations, employers, insurance carriers, and interested citizens should underwrite efforts to learn more about how the SAW/RTW process works and to understand its outcomes, and should support research to develop methods that prevent disability more often or more effectively.

The basis for each recommendation, along with suggestions for how to implement it, is described in the full paper that follows. The bibliography of literature references is arranged in groups that correspond to the sixteen specific recommendation sections.

Full implementation of many recommendations will require collaboration among all system participants, but forward progress can and is already being made by committed individuals and companies on their own.

INTRODUCTION

The North American workforce has been aging. The burden of chronic disease in the population and its resulting impact on function has been rising. Episodes of prolonged disability due to common conditions such as depression and low back pain are becoming more common. As the population is aging, the fraction of the US population now receiving social security disability payments is also rising. Although the incidence of work-related injuries and illnesses has been falling steadily for the last several decades, the length of disability following work-related injury has been climbing, as have the number of medical services and their costs. Paradoxically, employers are paying for more -- and more expensive -- medical services but people are nevertheless losing more time from work for medical reasons.

Until now, mitigating the impact of illness and injury on everyday life and work – with the goal of preventing needless disability, preserving function, and protecting quality of life – has not been within the traditional purview of medicine. We think it is time to broaden the scope.

We believe that this report is the first ever description of the workings (and failings) of the SAW/RTW process. Our group of authors is well-qualified to address these matters from an informed and fact-based perspective because of the unusual breadth and depth of our cumulative experience:

- All of us have practiced medicine and have seen the SAW/RTW process in action first hand, since all of the disability benefit programs require a doctor's participation and signature at one point or another.
- As physicians involved in occupational medicine, we deal every day with work concerns that people have because of their health, as well as health concerns caused by their work.
- As physicians, we have all been trained to distinguish what is medical from what is not.
- We come at the SAW/RTW process from multiple vantage points. We are specialists in emergency medicine, family practice, internal medicine, occupational medicine, orthopedics, physiatry, and psychiatry. We are in private medical practice, government, academia, heavy industry, as well as workers' compensation and disability insurance companies. We are hands-on clinicians, executives, thought leaders, and consultants. We work in Canada and 15 of the United States.

The development of this white paper is one concrete example of the commitment of occupational medicine physicians to meet the needs of workers, employers and insurers in the twenty-first century. Many of us have begun moving beyond our specialty's traditional role in preventing and treating *work-related* health problems and are already working collaboratively with all parties to keep the workforce healthy and productive. We are taking on a broader role in preventing, treating, and mitigating the impact of *all types* of health conditions on function, particularly on occupations.

This particular document is intended to begin an on-going dialogue with employers, payers (insurers, third party claims administrators and self-insured employers), and regulators of the work-related and non-work-related disability benefits systems. Given that there are so few of

us available (occupational medicine is among the smallest of medical specialties), we are interested in exploring how we can best assist the nation's workers, employers, and insurers in preventing needless disability.

For more discussion of the implications of the SAW/RTW process for the hands-on practice of medicine, please see:

- ACOEM's "Consensus Opinion on the Attending Physician's Role in Helping Patients Return to Work After an Illness or Injury" (www.acoem.org/guidelines/article.asp?ID=55
- The 2nd edition of the ACOEM Practice Guidelines, Chapter 5 entitled "Cornerstones of Disability Prevention and Management" (www.acoem.org/education/tools/pracguide.asp).
- The American Medical Association's new book "A Physician's Guide to Return to Work" edited by Drs. James Talmage and Mark Melhorn.

BACKGROUND

Each year, millions of American workers develop health problems that have the potential to temporarily or permanently prevent them from working. In the large majority of cases, these employees are either able to stay at work in spite of the condition, or return to productive work after a brief recovery period. For the balance, roughly a tenth, significant work absence and life disruption occurs, sometimes leading to prolonged or permanent withdrawal from work. During the period while they are not working, these individuals are described as "disabled" and many of them become involved with one or more disability benefits systems.

The disability benefits systems we refer to include all the programs that protect workers when they become unable to work for medical reasons – especially those that provide financial support – such as sick leave, workers' compensation, short term disability (STD), long term disability (LTD), and Social Security Disability Income (SSDI). Other closely related programs include the Family Medical Leave Act (FMLA) and the ADA (in the US) and their Canadian counterparts, though they do not pay benefits per se. The estimated total annual cost of disability benefits paid under all these systems in the US exceeds $100 billion.

Every disability benefit program usually requires a physician's signature on a letter, note, or form of some kind before benefits can be awarded or denied. Other than that one similarity, disability benefit programs and the processes for administering them are better characterized by their many differences. Each has its own complex rules and processes for eligibility determination and for administration of benefits. Experts in one system often do not know much about the others. Each of the programs has generally received significant study and attention on process improvements and benefit program design, but each one has been considered in isolation. The programs are not knit together into a coherent, coordinated whole, and the whole has not received similar attention to potential improvements.

In this paper, we use the word "disability" the same way that employers use it in their benefits programs and employment policies, and the same way that insurance laws, regulations, and policies do. We use "disabled" to mean someone who is absent from work or not working at full productive capacity for reasons related to a medical condition. Please note that confusion is common regarding the word "disability" since it is sometimes used to describe physical or functional impairments. For example, a person who has an impairment that affects one or more life functions is considered a to have a disability under the Americans

with Disabilities Act (ADA). However, people with ADA-qualifying impairments who are working at full productive capacity would NOT be considered disabled according to our definition, because they are at work.

The focus of this paper is on the surprisingly large number of people who end up with prolonged or permanent withdrawal from work due to medical conditions that normally would cause only a few days of work absence. Many of those who end up receiving long-term disability benefits of one sort or another have conditions that began as common everyday problems like sprains and strains of the low back, neck, shoulder, knee and wrist, or depression and anxiety. As we will discuss below, prolonged work withdrawal (disability absence) by itself can produce unfortunate consequences, and this is one of our major concerns.

On the other hand, many of the people who receive disability benefits have severe illnesses like a major cancer or schizophrenia or have suffered catastrophic injuries such as amputations, blinding, major burns, or spinal cord injuries, or have had major surgery. These people, too, are susceptible to the influences described in this paper, although the effects may be overshadowed by the obvious difficulties of coping with medical problems of this magnitude, and the need to learn skills and methods to deal with any resulting impairments. In these cases, a prolonged period of work absence is often unavoidable. The traditional rehabilitation approach delivered by an array of professionals was designed to meet the needs of these people. The question still sometimes arises: what amount of this work disability could be prevented?

We contend that a considerable amount of the work disability due to common everyday conditions (and an unknown fraction of the disability that follows more serious conditions) is avoidable, as are its social and economic consequences. We believe that a lot of work disability can be prevented or reduced by finding new ways of handling important non-medical factors that are fueling its growth.

In particular, we want to draw attention to a little-known but fundamental process shared by all the disability benefits systems in the US and Canada today – what we call the Stay at Work and Return to Work process. It is a fundamental underlying set of actions and decisions that determines whether a worker will stay at work in spite of a medical condition, and if not, determines whether, when, and how the worker will return to work during or after recovery. This Stay at Work and Return to Work process is the topic of this paper. We abbreviate this process as SAW/RTW and will define and describe it fully later in this paper.

Some non-medical aspects of the SAW/RTW process are causing harm to the health and well-being of the same people that these systems were designed to protect – and harm to their families, employers, communities, and society as a whole. We see how often participation in the disability benefits system is counterproductive in our patients' lives, some of whom are particularly susceptible. The disability system typically turns an impersonal face towards a person whose life has been disrupted and who may need guidance in managing a new life situation. We also see how often the SAW/RTW process is both openly and surreptitiously distorted by other interests. As a result, the disability benefits system too often:

- fails to provide non-financial support to people who need help because their life has been disrupted by illness or injury
- fails to help people adapt or understand the course of their illness and their future life options, and defeats what would otherwise be a successful medical result

- wastes resources on people who do not need them
- causes people to refocus their lives and adopt a new identity as a disabled person, resulting in society's loss of potentially productive members.

As physicians our fundamental precept is “first, do no harm.” Because we see harm occurring in this arena, with physicians as unwilling or unwitting participants, we feel compelled to speak. We also see how disability programs affect costs, productivity, and the competitive viability of companies and states as well as national economies. An ineffective SAW/RTW process causes damage at many levels.

We are in agreement that the word needs to be spread: work disability is potentially preventable, there are good ways to prevent it, and collaboration across professional boundaries is part of the solution. In this paper we are speaking to policymakers, legislators, and regulators, to business and industry, to insurers and other payers, to lawyers, organized labor and working people directly, in addition to all our colleagues in medicine and the other healthcare professions. As more and more people come to see things from this perspective, creative efforts to address the major issues will become possible.

Some employers, insurers, healthcare providers and employees achieve better-than-expected outcomes under difficult circumstances, and some deliver better-than-usual program or system results. Their success stories are the proof that much disability is preventable. They can serve as models for others to follow. In most instances, a simple formula of kindness, straightforward communication, common sense practicality, and good management is all that is required to make the system work better and achieve better outcomes for all.

In summary, the results produced by the SAW/RTW process have a profound impact on the overall health and well-being of our patients, and also their families, employers, communities, and ultimately society as a whole. It determines whether people stay engaged in or withdraw from work and all the consequences that derive from that decision. However, the SAW/RTW process has been hidden amidst all the complex technical, financial, and legal details of multiple disability benefit programs. This little-studied and under-resourced process has enormous personal and economic consequences for the lives of millions and for American society, and deserves attention in its own right.

WHAT IS THE STAY-AT-WORK / RETURN-TO-WORK (SAW/RTW) PROCESS?

At its heart, the stay-at-work / return-to-work process is a very common, everyday process. Every working person who wakes up with a cold or a backache has to decide whether to go to work, and if the answer is yes, how to get through the day. Let’s walk through the usual steps in this process by considering the simple case of a worker named Tom.

1. The SAW/RTW process is triggered whenever a medical condition arises or another precipitating event occurs, and the question arises whether the worker can or should do his usual job today. *In Tom’s case, he woke up with a badly infected cut on his foot.*

2. The worker’s current ability to work is assessed on three important dimensions, either formally or informally:

- Functional capacity – what can he do today? *Has Tom's infection made him so sick he simply can't function at all and has to be in bed? If not, what can he do in his current condition?*

- Functional impairments or limitations – what can't the worker do now that he normally can? *In Tom's case, the acute pain he is experiencing means he is too uncomfortable to wear his normal shoes and do any activities that require him to be on his feet – prolonged standing, walking, jumping, etc.*

- Medically-based restrictions – what he should not do lest specific medical harm occur? *In Tom's case, would walking, standing, and being on his feet all day actually worsen the infection or delay healing?*

3. The next question is whether the worker's temporarily-altered capacities, limitations, and restrictions are sufficient to perform the tasks required by his job.

    - In order to answer this question, the functional demands of the job must be known. Functional demands include the knowledge, skills, and abilities – physical, cognitive and social – required to perform a job. *In our case example, Tom already knows what it takes to do his usual job.*

4. The last question is what must occur in order for the situation to be resolved and the worker actually go to work?

    - If it is clear that the worker can be safe and comfortable doing his usual job, or if he can make any necessary modifications himself, he simply goes to work. *In Tom's case, that is what he decided to do, since he works at a desk all day and can keep his foot elevated on a chair.*

    - However, there may be legal requirements, company policies, or concerns about the safety of co-workers, the public, or the business that will affect what happens. Examples of medical qualification standards include those for airline pilots, truck drivers, school bus drivers, crane operators, scuba divers, and the like. Examples of company policies include performance standards especially for those with customer or public contact, fiduciary responsibilities, or executive authority.

    - If a temporary alternative task or job is possible but would require the cooperation of others, it has to be arranged and implemented.

        - If a satisfactory temporary arrangement is made available, the worker goes to work.

        - If not, the worker remains out of work until something changes: his condition (and thus his functional capacities, restrictions, and limitations), the available options for working under those conditions, or the motivation to find a solution to achieve return-to-work.

Usually all these steps are completed in an instant because most medical conditions are minor, the job doesn't put too much demands on the impaired body part or function, and the worker is willing to go to work.

But sometimes the situation cannot be acceptably resolved on the first pass, and additional steps are required. At this stage, the SAW/RTW process evolves into a de facto negotiation

between the employee (and his advisors) and the employer (and its advisors) about whether the employee will be able to come back to work.

The SAW/RTW process is often ***iterative*** – meaning that finding a solution may take more than one try, and may even require going over the same ground several times as the situation escalates. Steps 2 through 4 above may need to be repeated at each level. During each repetition, more participants tend to become involved, and progressively more opinions, data, resources and time are required in order to figure out what to do.

Escalation Level #0: Tom goes through the process in his mind in an informal way. It will simply seem like he is deciding whether he should go to work or not. He will take cues from those around him – his doctor, supervisors, and friends – and will be influenced by his own realistic and unrealistic fears, motives, and life history. His thinking will also be constrained by his current personal life situation.

Escalation Level #1: If Tom decides he can't work or is unsure what to do, his supervisor, the claims adjuster and / or his doctor get involved. The employer may be asked to send the doctor a job description or list of tasks. The doctor may be asked to provide information about Tom's medical restrictions or his work capacity. The employer then decides whether or not it is able to (or will) provide transitional work that matches what Tom can do.

Escalation Levels #2 and 3: In more difficult situations, successive passes add progressively more participants and more specialized assistance: a nurse case manager, a physical therapist, the employer or insurer's medical consultant, an occupational medicine physician, an independent medical examiner, a vocational rehabilitation consultant, union representatives, lawyers, and / or other experts. Functional capacity evaluations may be done to document work capacity. Job analyses including ergonomic measurements and even video photography may be done to document the nature of the job demands. With each pass, the time and money consumed increases along with the amount of information assembled. Because there is usually no one in charge and the participants have not agreed on the goal of finding an optimal resolution to the situation, the additional effort and resources often have a paradoxical effect: clouding the situation rather than clarifying it, obscuring basic issues, causing confusion, hardening positions and polarizing the participants.

Table 1 displays the escalation levels of the SAW/RTW process, moving from simplest to most complex. In reality, the process often occurs as a ragged continuum rather than a structured series of rounds. As soon as there is a definitive answer – the worker returns to work or it becomes clear that will never happen – the process stops. Every time the process reaches the end without a definitive answer, we go back to the beginning – but the complexity goes up: the number of participants increases, more detailed data is used as the basis for decision-making, and the formality of the resolution process increases dramatically. However, the three basic issues that need factual answers always remain the same:

- What are the worker's current work capacity, medical restrictions, and functional limitations?
- What are the functional demands of the intended job?
- If the workers' functional capacity is adequate to meet the functional demands, what is required to make an actual return to work happen?

Table 1

The Stay at Work / Return to Work Process Begins Simply But Can Become Very Complex

The SAW/RTW process is triggered whenever a precipitating event, usually health-related, raises the question whether a worker can or should remain at work.

Escalation Level #	Who is involved?	How is current work capacity determined?	How are job demands determined (both usual job and alternatives)?	What triggers the actual return to work?
0	• Worker	• Personal knowledge	• Personal knowledge	• Personal decision
1	• Worker and Supervisor	• Discussion	• Discussion	• Discussion
	• Worker and Doctor	• Discussion • RTW note by MD	• Verbal description of usual job	• Discussion
2	• Worker • Doctor • Claims Adjuster / Case Manager	• Formal inquiry • Simple physical capacities form completed by MD	• List of functional demands for job	• Discussion
3	• Worker • Doctor • Claims Adjuster / Case Manager • Physical Therapist • Ergonomist or Vocational Consultant • IME Examiner • Union Steward • Lawyer	• Objective testing • Functional Capacity Evaluation • Independent Medical Opinion	• Video of job • Ergonomic analysis of job • On-site workplace visit	• Written offer of employment • Formal return to work plan • Sign-off by all parties

There is a lot of variability in medical conditions, and also a lot of variability in their impact on work. Table 2 below shows examples of the wide range of circumstances under which the SAW/RTW process is taking place.

Table 2
Examples of the Variability of Medical Conditions and Their Impact on Work

Medical Condition	"A Cold" or Acute Food Poisoning	Sprained Ankle or Influenza or Asthma Attack	Femur Fracture or Abdominal Surgery or Treatable Cancer or Major Depression	Bipolar Disorder or Multiple Sclerosis or Congestive Heart Failure
Length of time away from work	None / Days	Days	Weeks	Weeks / Months
Biological Impairment	Trivial Isolated episodes	Minor Isolated episode	Moderate Isolated episode May recur	Moderate /Severe Chronic / Recurring May be progressive
Medical care required	None	Single provider 1-2 visits	Several providers Several curative visits / service Relapse prevention may be necessary s	Multiple providers On-going services Relapse prevention is required
Likelihood of full resolution	Always	Always	Usually Some residual impairment is possible	Unlikely Fluctuation in functional ability is common
Time course of the illness / condition	Days	Days	Weeks	Months / Years
Career Impact	None	Irrelevant	Significant temporary impact (Residual but stable permanent impairment may affect ability to perform essential job functions)	Progressive impairment often affects ability to perform essential job functions long term
Number of other professionals involved	0-1	0 - 2	0 - 3	Multiple
SAW/RTW information exchanges required	0-1	0 - 1	0 - 3	Multiple

The SAW/RTW process does not occur in isolation. It is closely tied to but distinct from four other important, related processes:

- Perhaps most importantly, the injured or ill worker is engaged in a **personal adjustment process**, dealing with the disrupted life situation around the illness or injury**.** Getting sick or hurt suddenly disturbs the equilibrium that life was in before the change occurred. Often workers are dealing simultaneously with a mixture of

things in different dimensions: physical, logistical, financial, emotional, social, and psychological. Virtually everyone has to cope with at least some transient disruption even though some medical conditions are so minor there is little objective impact to cope with. However, not everyone has the same resilience and level of coping skill, so some people find it hard to adjust to things that others barely notice.

- If the medical situation calls for treatment, the SAW/RTW process occurs in parallel with the **medical care process** that consists of diagnosis and treatment.

- If the initial SAW/RTW process results in the worker staying at home and if there is a possibility of coverage under one or more disability benefit programs (sometimes there is not), the **benefits administration process** will begin, and will operate in parallel with SAW/RTW. Benefits administration may include initial and ongoing eligibility and compensability investigation and determination, benefit calculations and payments, and benefit termination, among other activities.

- If a permanent or long-lasting alteration of work capacity occurs, the **ADA "reasonable accommodation" process** will probably be triggered. It will operate in parallel with SAW/RTW, and if ADA is determined to apply, will heavily influence what occurs in SAW/RTW.

These four other processes (summarized in Table 3 below) involve many of the same participants as SAW/RTW, but exist to address different questions, employ different activities, and have different end-points.

The first process – personal adjustment, which is the natural human response to injury and illness – is neither explicitly acknowledged nor addressed in any of the other processes. Ironically, unresolved issues in the poorly-known personal adjustment process often foul up all four of the other processes. The failure to attend to the human needs of people who are normal but lack the resilience and coping skills required by their circumstances probably accounts for much of the system dysfunction we are discussing.

The other three processes – medical treatment, benefit administration, and ADA reasonable accommodation – have each received much more attention than SAW/RTW. Each has a coherent body of strong advocates with an interest in improving their process and advancing their agendas. The SAW/RTW process has been overlooked because so much attention is focused on the other well-known processes, and because of a longstanding but incorrect assumption that if the medical condition is promptly and properly treated, the worker will naturally return to work.

The SAW/RTW process deserves more attention in its own right. Those whose interest centers in another process need to become more attuned to and supportive of the SAW/RTW process because of its potential impact on their area.

435

Table 3

Five Parallel Processes Triggered By

A Health Event That Affects Ability To Function

	Personal Adjustment Process	**SAW/RTW Process**	**Medical Care Process**	**Disability Benefits Administration Process**	**ADA Reasonable Accommodations Process**

Fundamental Issues	• Dealing with life disruption:
	  • physical
	  • logistical
	  • financial
	  • emotional
	  • social
	  • psychological
	• Can I cope with this life challenge?
	• Am I healthy or sick?
	• Am I in charge here?
	• What does this mean for my future?
		• Will this person recover on the job?
		• When is it medically safe to resume normal activity?
		• What adjustments to the usual job will be required & for how long?
		• Will this person ever return to the same job / employer / vocation?
			• What is the diagnosis & prognosis?
			• Is this curable or treatable?
			• What treatment is warranted?
				• Does this episode qualify under the rules of our plan?
				• Is this person eligible for benefits?
				• How much benefit is due?
				• Is there any evidence of benefit fraud?
					• Will this change in work capacity be longstanding?
					• Does this person qualify for protection under the ADA law?
					• Is there an accommodation that can make full productivity possible? Is it "reasonable"?

Participants ***(Leader is in italics)***	• ***Employee***	• ***Employer*** • ***Employee*** • ***Treating Clinician*** • Benefit or claims agent	• ***Treating Clinician*** • Employee	• ***Benefit or claims agent*** • Employee • Healthcare provider	• ***Employee*** • ***Employer***
Activities	• Thinking • Feeling • Reacting • Talking • Coping • Adapting	• (See Table I) • Fact-finding • Negotiation • Making arrangements	• Delivery of medical care services	• Fact-finding • Data-gathering • Claim processing • Calculation	• Fact-finding • Data-gathering • Negotiations
Results	• Interpretation • Decisions / strategies • Possible change in self-concept (identity)	• Staying home • Staying at work • Going back to work • New job	• Healing • Resolution of symptoms • Failure to improve • Monitoring	• Benefit decisions and exchange of money • Claim closure	• Employment decision

Below is an example that illustrates the circumstances that lead to optimal versus sub-optimal outcomes, using the cases of two fictitious but typical men with identical medical conditions and treatment. Mr. A. and Mr. B. both had back problems severe enough to require surgery, but Mr. B. returns to work in 6 weeks while Mr. A. ends up on permanent disability. Mr. A. was not supported through his personal adjustment process and the workplace environment did not support functional recovery.

Mr. A.	Mr. B.
• Mediocre work history • Bad back, herniated disc • Treatment: surgery • Supervisor never called: "Let George do it" • Weak supervisor • Teasing by co-workers • Naïve doctor: "Stay home until you're able to do your job." • PERMANENT DISABILITY	• Mediocre work history • Bad back, herniated disc • Treatment: surgery • Supervisor kept in touch: "We need you" • Good supervisor • Support from co-workers • Function-oriented MD: "Stay as active as possible." • On-the-job recovery; adaptive equipment • BACK TO WORK IN 6 WEEKS

OBSERVATIONS AND RECOMMENDATIONS

The first half of this paper describes the SAW/RTW process, how it works, and how it is related to the other processes that often are running in parallel with it. The second half of the paper describes our observations and recommendations, which are divided into 16 sections. Each section begins with a specific recommendation concerning a single feature or aspect of the process. The 16 sections are grouped under four general recommendations:

I. Adopt a disability prevention model.

II. Address behavioral and circumstantial realities that create and prolong work disability.

III. Acknowledge the powerful contribution that motivation makes to outcomes and make changes that improve incentive alignment.

IV. Invest in system and infrastructure improvements.

For each of the 16 specific recommendations, we describe how the status quo currently interferes with achieving optimal outcomes, discuss the reasoning for our recommendation, and make suggestions for ways to implement the recommendations. Where available and as space permits, we give concrete examples of improvement initiatives underway or programs

getting better-than-average results by using best practices. Note that many of the issues and suggested solutions are interrelated, so there is some duplication and overlap in the text.

During the development of this white paper, a number of the issues raised were agreed to be important but applicable only to specific sub-segments of the overall disability benefits system – e.g. particular industries, benefit programs, labor arrangements, medical conditions, patient types, job types. We decided to exclude those narrower issues from this first paper, and only include those aspects of the SAW/RTW process that are pervasive, applying across most or all of the various disability systems. The deferred issues are still important and should be discussed and addressed at some future time.

I. ADOPT A DISABILITY PREVENTION MODEL

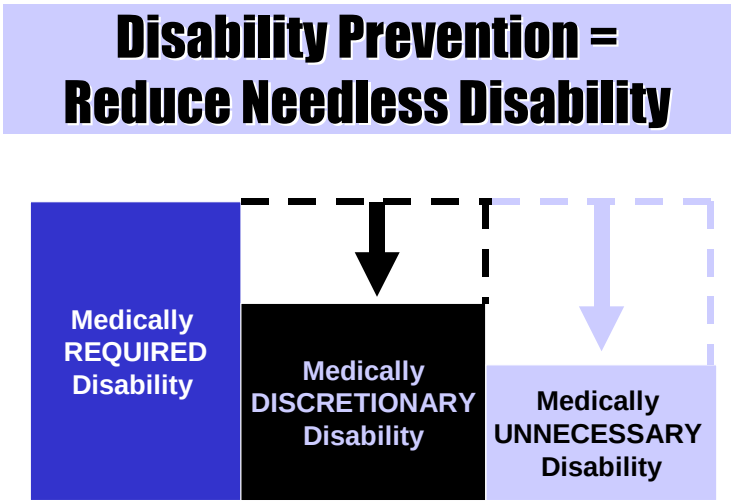
1. Increase Awareness of How Rarely Work Disability is Medically-REQUIRED

At least one formal survey and numerous informal polls of treating physicians consistently estimate that only a small fraction of medically excused days off work are medically ***required*** – meaning that all work of any kind is medically contraindicated. The rest of the days off work are caused by a variety of non-medical factors such as administrative delays of treatment and specialty referral, lack of transitional work, ineffective communications, lax management, logistical problems, and so on. These days off work are discretionary – the result of decisions that are fundamentally non-medical – or just plain unnecessary.

Participants in the disability benefits system seem largely unaware that so much disability is not medically required. Absence from work is “excused” and benefits are generally awarded based on a doctor's signature on a letter or form confirming that a medical condition exists, implying that a diagnosis creates disability. However, from a strictly medical point of view, people can generally work at something productive as soon as there is no specific medical contraindication to them being out of bed and back out in the “real” world. (See Table 4 below.)

The key question is: work doing what? Many obstacles that look like they are medical are really situation-specific. For example, an employee with a cast on the right foot cannot drive a forklift, but that worker could do a lot of other potentially useful tasks until the cast comes off. Someone who has had recent surgery may not be able to work a full day in the office yet, but could come back half days or do some work at home.

In fact, people often end up sitting at home collecting benefits because their employers have made the discretionary business decision not to take advantage of their available work capacity. Today, these decisions are generally misclassified as “medical” and so are not examined. Sometimes those discretionary decisions make good business sense, but often they do not for reasons that will be discussed in more detail later in this report.



As shown in the figure above, there is much more opportunity to reduce medically-discretionary and medically-unnecessary disability than there is to prevent medically-required disability. Although it is unlikely that all of the discretionary and unnecessary disability can be prevented, substantial reductions are possible.

Recommendation: Stop assuming that absence from work is medically-required, and that correct medical diagnosis and treatment are the only ways to reduce disability. Pay attention to the non-medical causes that underlie discretionary and unnecessary disability. Reduce discretionary disability by increasing the likelihood that employers will provide on-the-job recovery. Reduce unnecessary disability by removing administrative delays and bureaucratic obstacles, strengthening flabby management, and by following other recommendations in this report. Participants should be educated about the nature and extent of preventable disability. Employers in particular should be educated about their powerful role in determining SAW/RTW results.

Current Initiatives and Best Practices: Clinicians, employers, and insurers can all now use the criteria in Table 4 below to determine whether disability is medically-required, discretionary or unnecessary. The definitions in Table 4 come from Chapter 5, the disability prevention and management chapter, in the 2nd edition of the ACOEM Practice Guidelines. If all parties begin using these definitions, clearer communication and better decision-making will result. In particular, physicians will no longer be asked to make employment decisions, and employers will stop misclassifying business decisions as medical ones.

Table 4

When is Disability Medically-Required, Medically-Discretionary and Medically-Unnecessary?

(Source: ACOEM Practice Guidelines, 2nd edition, Chapter 5, Cornerstones of Disability Prevention and Management, pp 80-82)

Medically-Required	Medically-Discretionary	Medically-Unnecessary
Typically, absence is medically required when: • Attendance is required at a place of care (hospital, doctor's office, physical therapy). • Recovery (or quarantine) requires confinement to bed or home. • Being in the workplace or traveling to work is medically contraindicated (poses a specific hazard to the public, coworkers, or to the worker personally, i.e., risks damage to tissues or delays healing).	Medically-discretionary disability is time away from work at the discretion of a patient or employer that is: • Associated with a diagnosable medical condition that may have created some functional impairment but left other functional abilities still intact. • Most commonly due to a patient's or employer's decision not to make the extra effort required to find a way for the patient to stay at work during illness or recovery.	Medically-unnecessary disability occurs whenever a person stays away from work because of non-medical issues such as: • The perception that a diagnosis alone (without demonstrable functional impairment) justifies work absence. • Other problems that masquerade as medical issues, e.g., job dissatisfaction, anger, fear, or other psychosocial factors. • Poor information flow or inadequate communications. • Administrative or procedural delay .

2. Urgency is Required Because Prolonged Time Away From Work is Harmful

Unnecessary prolonged absence from work can cause needless but significant harm to well-being. While on extended disability, many patients lose their footing in three major dimensions: they lose social relationships with co-workers, lose the self-respect that comes from earning a living, and lose a major identity component for most people – what they do for a living.

As treating physicians, we have often seen patients voluntarily and unnecessarily take on a new identity as a disabled person. This is sad for us to watch, since our patients' quality of life deteriorates significantly as a result.

Taking a few days off work may seem harmless enough, and most of us occasionally take advantage of a cold or a sore back to get a needed break from stressful or boring work. The problem is that for some people, a few days off stretches out and becomes needlessly extended disability and leads to significant harm. The quandary is how to tell in advance whose life will go that way and whose will not. Experienced disability claims handlers report that more than three-quarters of their most problematic cases started out as seemingly-minor problems.

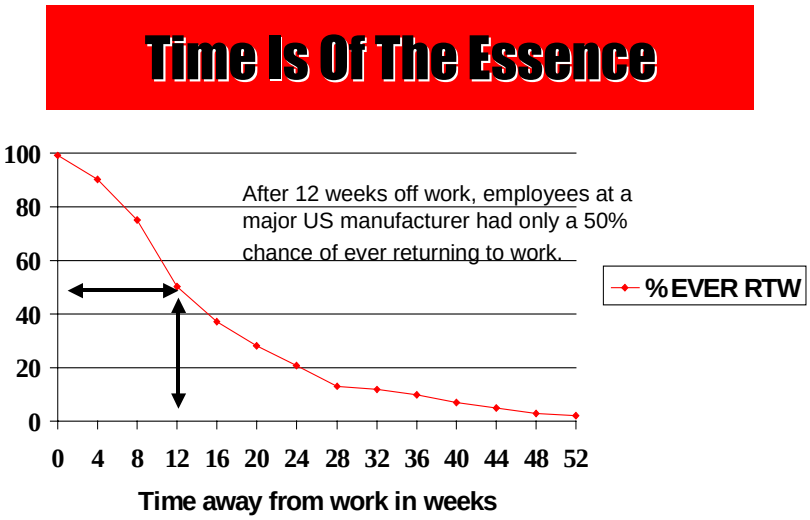
Some may argue that it is not worth trying to prevent unnecessary disability in all cases because it will only lead to harm in some. However, there are good examples where as a society we endorse universal prevention activities under similar circumstances. Not every smoker will get lung cancer, not every driver who fails to wear a seatbelt will be injured as a result, and not every worker who flaunts safety rules will get hurt. But, we still tell everyone to stop smoking, wear seatbelts, and follow safety rules. Needless disability should be treated in the same way.

Many of the key players in the SAW/RTW process (patients/workers, their employers, physicians and claims administrators) are not sufficiently aware of the potential harmful effects of prolonged medically excused time away from work. Many think that being away from work reduces stress or allows healing. Many think getting disability benefits is just an administrative or financial issue, and they simply don't consider the fact that the worker's daily life has been disrupted. With these attitudes, iatrogenic or system-induced disability becomes a significant risk.

A recent article by Harris et al in the Journal of the American Medical Association has confirmed again what we doctors have known for years: people who are receiving disability benefits of some kind recover less quickly and have poorer clinical outcomes than those with the same medical conditions but who are not receiving disability benefits. The Harris study was a meta-analysis of all studies with data on surgical outcomes by compensation status. The researchers reported that 175 out of the 211 studies that met their inclusion criteria reported worse surgical outcomes for the patients on workers' compensation or in litigation. (Only one study reported better outcomes in compensated patients, and 35 studies reported no difference.) In the 86 studies where patients in litigation were excluded, the odds of an unsatisfactory outcome were more than three and a half times higher for the patients on workers' compensation than for those not receiving compensation. These are similar to findings of multiple other studies, including two previous meta-analyses of studies of outcomes, one for workers with chronic pain and the other for closed-head injuries.

The current practice of focusing disability management effort on those who have already been out of work a long time is rarely successful. After months of providing "proof of disability" and regular doctor's notes to justify their on-going compensation, these individuals have usually revised their view of themselves and taken on a new identity as disabled. This new identity justifies their life style and protects their financial security. In the meantime, the employer has moved on and filled that person's job slot, and no longer sees the individual as one of their workers.

The key to preventing disability is intervening while the situation is still fresh and fluid. Research has confirmed that people who never lose time from work have better outcomes than people who lose some time from work. Several studies confirm that the odds of returning to work drop with every passing day not at work. Some studies have shown that the odds for return to work to full employment drop to 50-50 by the time 6 months of absence has occurred. Even less encouraging is the study behind Figure 1, showing the decay curve for workers' compensation cases at a major US manufacturer. In this population, the odds of a worker ever returning to work had dropped to 50% by just the 12th week. The author of a recent meta-analysis of research on the factors that predict prolonged disability reported that the window of opportunity for successful intervention may be as short as 6 weeks.



578

579 Recommendations: Shift the focus and shorten the response time. The way that all of us
580 think about disability needs to shift from "managing" it to "preventing" it. Disability benefits
581 systems need to be revamped to reflect the reality that resolving disability episodes is an
582 urgent matter because the window of opportunity to re-normalize life is short. Emphasis
583 needs to be placed on preventing or immediately ending unnecessary time away from work
584 for everyone, because that will prevent the development of the disabled mindset. An
585 educational campaign supporting this position needs to be formulated and widely
586 disseminated. The SAW/RTW process needs to incorporate mechanisms to ensure
587 withdrawal from work is prevented whenever possible, and its effects minimized when not.

588 On the individual level, all treating physicians, along with the other healthcare professionals
589 on the healthcare team, should keep all of their patients' lives as normal as possible during
590 illness and recovery, and establish as a universal goal of treatment the fastest possible
591 return to function and resumption of the fullest possible participation in life.

592 Current Initiatives and Best Practices: Many employers and some insurers now begin return
593 to work efforts within 72 hours and some now begin on the day of injury -- rather than the
594 more traditional approach of waiting to intervene until after 90 days of work disability. One
595 large workers' compensation insurer has a group of "pre-injury consultants" who work with
596 employers to set up plans and systems beforehand so that they are prepared to respond
597 promptly to avert needless lost work days from the moment of injury.

598 Attempts are also underway in several quarters to detect workers with pre-existing risk
599 factors for prolonged disability and then manage those cases more intensively right from the
600 onset. Dr. Alan Colledge (among the authors of this paper) and some colleagues developed
601 and published a Disability Apgar test, in which a few features of a situation are evaluated and
602 then a risk score can be assigned. The State Fund of California has recently completed a
603 pilot of a program that assesses risk factors at claim intake and makes suggestions for claim
604 management. A workers' compensation insurer in the Australian Northern Territory uses a
605 situation assessment tool at claim intake and revisits it at intervals, in order to speed
606 detection (and intervention) on claims that have signs of delayed recovery.

II. ADDRESS BEHAVIORAL AND CIRCUMSTANTIAL REALITIES THAT CREATE AND PROLONG WORK DISABILITY

3. People's Normal Human Reactions Need to Be Acknowledged and Dealt With

In order to return to work, an injured or ill worker must navigate the Personal Adjustment Process described earlier in this paper. Most people accomplish this without problems. But for those who have difficulty handling that process on their own – coming up with a strategy for coping and adapting and reaching the decision to try to return to work – the other processes in the disability management system do a very poor job of providing assistance.

(Some of the issues to be addressed in the Personal Adjustment Process are practical or logistical – how to get to work, who will mow the lawn. The need for better assistance in resolving such problems is discussed in the next section.)

In this section, we focus on a different critical issue – the normal human response to upset and change, and the variability in our ability to cope and adapt. We are not talking about mental illnesses here, such as depression – though psychiatric conditions will be addressed in a later section. We are talking about normal human emotional reactions that are experienced to a greater or lesser degree by every person in these circumstances.

People who have been injured or become ill have had their life disrupted. Even a minor injury may seem like a big event to the person who is injured because it is out of the ordinary. People may suddenly find themselves in pain, upset, worried, dependent on strangers. They may suddenly feel uncertain or uneasy because they don't know where to turn for help, or what doctor to go to. They may be angry at the person who caused their injury, or embarrassed and mad at themselves for being careless or breaking a safety rule. They may be afraid that they will get in trouble, may need surgery, or may never be able to walk again, or that this will mean the end of their career. They may be worried about who is going to pick the kids up from the sitter. Most of the time, they also have to figure out how to deal with an unfamiliar bureaucracy and set of rules – the workers' comp or disability benefits system.

Other parties often contribute to the uncertainty involved. Employers and insurers often neglect to tell or intentionally choose not to tell injured or ill employees very much about how their disability benefit programs work, what to expect, and what they can do to make the process work smoothly. Doctors often do not tell their patients much about their condition – how it will affect their daily life and work, what the eventual outcome and options are likely to be, the expected timeline for treatment and recovery, and what they can do to achieve the best possible result.

These issues and uncertainties can be a lot to cope with, and many workers with a significant illness or injury experience it as a stressful predicament. According to the Holmes Stress Scale, most human beings would find it quite stressful to get sick or be injured, and also stressful to change jobs or work responsibilities. People who are absent from work due to illness or injury are contending with both kinds of stress simultaneously. Of course, the amount of stress felt by a specific individual in a specific situation will vary widely based on factors like the magnitude of the medical problem, the personal and family situation at the time, and the job situation.

According to the view of medical anthropologists, the patient takes on the Sick Role and the Dependent Patient Role after becoming ill or injured. In order to recover, these roles must be relinquished. Since the Sick Role carries with it exemption from normal responsibilities, the

right to receive care from others, and freedom from fault, it is a seductive role. Those who have trouble coping with their circumstances are very likely to resist relinquishing those roles, using them instead to feel good about themselves and ensure their future security.

A person's native ability to function and deal with life's problems varies from individual to individual, even without injury or illness involved. People under stress are less able to function well and have been shown to be more prone to illness or injury than those not under stress. If the demands of a situation exceed the individual's ability to cope under those circumstances and no assistance is provided, the Personal Adjustment Process will get stalled. Recovery and return to work will be delayed, needless loss of function occur, or permanent disability created.

In our experience, the current processes do not acknowledge these emotional realities. The medical care, benefit administration, and SAW/RTW processes do not powerfully and openly acknowledge the existence of these issues. Workers are typically left alone to cope regardless of their situation and their coping skills. Little empathy is provided to help bolster their strength and resilience. Little effort has been devoted to reducing uncertainty and other sources of stress. Individuals who are caught up in stress and complexity that they cannot handle by themselves are not identified. This is unfortunate because emotional adjustment has a profound effect on the largely discretionary effort at recovery made by the worker in the Personal Adjustment Process.

Even when emotional factors are recognized by today's participants in SAW/RTW, effective assistance is not usually available. In non-occupational disability, since medical treatment costs are not covered by the benefit program, there is generally no thought given to paying for supportive services that will aid recovery and return-to-work. In workers' compensation, claims adjusters are reluctant to acknowledge these issues and authorize care in the form of mental health services out of concern that it will lead to a claim for a psychological illness and drastically increased claim cost. In fact, though, most of these sick or injured people do not really need psychiatric care. They need the kind of simple education, minor supportive counseling, and reassurance that would normally be provided by a wise friend, a caring family member, a pro-active customer service department, a social worker, an employee assistance program, an ombudsman, or so on. Also, much uncertainty and stress would be removed if treating physicians were pragmatic and clear in pointing out the functional aspects of medical conditions, options, and time frames over the course of treatment, and actively empowered people to cope on their own.

Recommendations: All participants need to expand their model of SAW/RTW to include appropriate handling of the normal human emotional reactions that accompany temporary disability in order to prevent it becoming permanent. Payers need to devise methods to provide these services themselves or pay for reasonable aids to recovery along these lines.

Current Initiatives and Best Practices: Some US employers are creating linkages between their disability benefit programs (workers' compensation, short- and long-term disability) and their employee assistance programs (EAPs) and/or their disease management programs in order to assure that employees are made aware of the option to tap into existing support services. An insurance agency in New Jersey makes immediate solicitous inquiries after a work-related injury occurs to ensure that injured workers feel cared for and all their questions are answered.

4. Investigate and Address Social and Workplace Realities

Research is steadily accumulating showing that the social realities of an individual's connection to the workplace provide powerful predictors for the occurrence of injury and illness as well as for the outcome of the SAW/RTW process. Does the worker like his job? How much pressure and how much decision latitude does the employee have at work? Does the worker get along with her supervisor? Is he perceived as a good employee? Does the employer want her back? Do co-workers respect him, or instead cause him distress? Has she had performance or discipline problems? Is the workplace a hostile or unsafe environment? These factors can have a major impact on the parties' willingness to work towards SAW/RTW, especially when coupled with the emotional adjustment issues raised in the section above. The fact that job dissatisfaction has been shown to be one of the strongest statistical predictors of disability underlines this point.

Home and family life may also pose problems for the worker entering the SAW/RTW process – such as the need to care for aging parents or children, or logistical problems getting to and from work. The worker may be tempted to resolve such problems by prolonging disability benefits.

A similar but 180-degree opposite situation occurs when the family or personal situation leads workers to insist on remaining at work when they medically should not. They may be desperate for money, workaholic, or so identified with their work role that they want to hide illness or incapacity and keep working even though it may harm them, pose a danger to co-workers or the public, or put their employer in violation of the law.

Still another dimension of unacknowledged workplace realities is that employers are often unwilling to admit they are unsure or ignorant of what to do. For example, it is much easier for a supervisor to flatly refuse to provide temporary transitional work than to ask for help because he doesn't know how to interpret the doctor's note, figure out appropriate tasks, and manage the worker who will be performing that assignment.

Though many players in the SAW/RTW process acknowledge the importance of these factors, little has been done to effectively address them in the SAW/RTW process. In fact, a significant problem for SAW/RTW is that employers and workers alike often use the disability benefit system as a way to sidestep difficult workplace issues. Typically these issues are obvious to the employer and/or employee but not disclosed to the outside parties – the doctor, the insurance adjuster – unless they exert significant effort to discover the underlying truths. As a result, these facts are seldom acknowledged or discussed so interventions to address the real issues are seldom attempted.

When key parties to the SAW/RTW process do not know what is really going on because they are not privy to this "inside information," their effort expended on SAW/RTW will often be misguided or futile. Resources and time are wasted.

Recommendations: The SAW/RTW process should routinely involve inquiry into and articulation of workplace and social realities, since hidden issues rarely resolve themselves. The bio-psycho-social model of disease currently on the ascendant in medicine takes into account these issues. Better communication pathways between SAW/RTW parties should be established. Screening instruments that flag situations where workplace and social issues should be investigated or addressed should be developed and disseminated. Pilot programs that explore the effectiveness of various interventions should be conducted.

Current Initiatives and Best Practices: An innovative program developed by David Brown, among the authors of this paper, is now being used successfully by several employers and insurers, particularly in Canada. It has as its centerpiece face-to-face conversations between the employee and the first line supervisor in structured sessions conducted by a trained facilitator. The focus of each session is "what part of your job can you do today?" All other parties (human resources and benefits staff, doctors, unions, etc.) become resources and advisors for the two key participants as they work towards a resolution of the situation. Among the many other positive outcomes of this process have been substantial increases in both employee and supervisor satisfaction with how potentially-disabling situations are being handled – and a near-total demedicalization of the SAW/RTW process.

Pilot studies are underway or complete in British Columbia and Alberta, Scotland, and Victoria (Australia) to intervene early in cases that are showing signs of delayed recovery. Both the evaluation and the intervention consider dimensions other than the medical. Initial results are very promising.

5. Find a Way to Address Psychiatric Conditions Effectively

A substantial minority of the population has undiagnosed / untreated psychiatric illness. When a potentially disabling physical illness or injury occurs to a person with underlying psychiatric illness, the risk of permanent disability increases unless the psychiatric problem is treated. A clinically significant psychiatric disorder becomes symptomatic during a period of serious medical illness in over 50% of cases, especially in those with a prior history of a major psychiatric disorder. In addition, many more previously-undiagnosed workers are vulnerable to developing their first frank episode of anxiety or depression when sick or injured. In these cases, the physical illness or injury precipitates the psychiatric episode.

Mental health treatment is required for these cases because the mental condition significantly affects the patient's reaction to the illness, adherence to medical treatment, the course of illness, its impact on function, and functional recovery from the physical condition. For example, symptoms of depression often include pain, fatigue, poor sleep and apathy. Poor sleep in turn increases sensitivity to pain. In short, psychiatric factors make a significant contribution to the risk of permanent disability unless there is active and effective treatment.

Psychiatric issues are usually undetected, ignored, or ineffectively addressed in the current SAW/RTW process. As a result, many people "stuck" in the disability benefit system have undiagnosed / untreated psychiatric conditions, experiencing the poor outcomes predicted in the paragraphs above.

The reluctance of treating physicians to make a psychiatric diagnosis comes primarily from lack of awareness and stigma. Patients often do not want these diagnoses.

Even when a psychiatric diagnosis is made, whether for a primary mental condition or one that is accompanied by a physical ailment, treatment is often inadequate or inappropriate. Limited benefits coverage and shortages of skilled mental health professionals often mean that expert treatment is unavailable. And, although all healthcare professionals understand the need to protect and foster role functioning in personal relationships, the similar importance of role functioning at work is often overlooked. Faced with a patient who talks about marital stress, few therapists would suggest a separation as the first step, but when a patient describes stress due to difficulties at work, leaving work is often seen as the solution rather than good faith attempts at conflict resolution and preservation of relationships.

There have been dramatic improvements in psychiatric diagnosis and the effectiveness of treatment over the past 15 years. Some employers are well aware of the potential cost-effectiveness of psychiatric treatments, but they also have spent considerable sums on ineffective and expensive therapy. They correctly feel that many mental health providers do not focus on functional recovery and continue overlong with treatments that have no apparent objective benefit. Payers for their part have not conditioned access and payment on providers' adherence to current treatment principles. Like other chronic conditions, psychiatric disorders may intermittently require intensive early treatment of new episodes as well as long-term low-level treatment for prevention of recurrence.

Recommendations: Effective means of acknowledging and treating psychiatric co-morbidities need to be found and widely adopted. Participants in SAW/RTW need to be educated about the interaction of psychiatric and physical problems, and be better prepared to deal with it. Psychiatric assessments of people with slower-than-expected recoveries should become routine. Whether for primary or secondary mental health conditions, payment for psychiatric treatment should be made conditional on the use of evidence-based and cost-effective treatments as well as demonstrated effectiveness.

Current Initiatives and Best Practices: An innovative program to make needed psychiatric services available to injured workers has been pioneered by the Washington State Department of Labor & Industries. This agency handles all the workers' compensation claims and pays all the benefits on behalf of insured employers in the state. The Department has made an agreement with the State Medical Association to pay for up to 90 days of psychiatric treatment "as an aid to cure" of a physical work-related injury as long as the initial evaluation, the treatment plan, and the ongoing progress notes meet certain specifications. It is essential to show a clear connection between the diagnosis and specific barriers to return to work, as well as a connection between the treatment plan and the removal of those barriers. As long as progress is clearly documented in the ongoing treatment notes, payment continues up to 90 days.

6. Reduce Distortion of the Medical Treatment Process by Hidden Financial Agendas

We often observe the medical treatment process being distorted by non-medical factors in cases where the disability benefit system is involved. This most often takes the form of patients seeking particular diagnoses or treatment pathways in order to obtain or maximize benefits. (The specific approach taken will vary based on the details of the benefit plans involved.) Another example of distortion occurs when employers or benefits claims administrators ask precise questions and elicit particular language from naive physicians that is subsequently used as the basis for benefit, claim, or employment determinations.

One cause is the complex and differing sets of rules for eligibility and benefit determination in the various disability benefit programs. Since there are thousands of different disability benefit plan designs, few doctors are ever able to accurately or clearly see the impact their actions may have on a given patient's benefit payments, and where hidden agendas may lie.

Doctors are often aware, either explicitly or subliminally, when patients, employers or payers make requests based on hidden agendas, and it makes them uncomfortable. But they seldom have a clear understanding of what is at stake, do not want to take the time and energy to become more informed, and do not want to risk offending their patient. Treating clinicians often find it simplest to practice a version of "don't ask, don't tell" in these situations, particularly because they will not be compensated for time spent learning more about the situation.

Recommendations: Develop effective ways and best practices for dealing with these situations. Treating clinicians should be trained what to do when they sense hidden agendas. Employers and payers should educate the provider about financial aspects that could distort the process. Procedures meant to ensure independence of medical caregivers should not keep the doctor "above it all" and in the dark about the actual factors at work. Limited and non-adversarial participation by impartial doctors may be helpful (for example, ask an occupational medicine physician to brief the treating clinician).

Where possible, the differences between benefit programs that create incentives to distort treatment should be reduced. Employers are in a better position to do this than other payers. However, we understand that some differences exist for important reasons, and that little change is likely to occur here.

Current Initiatives and Best Practices: Many employers are now examining their various benefit programs to see how they dovetail with one another, and whether they create unwanted incentives for employees to behave in a certain way. For example, some employers have set up paid time off banks in lieu of sick leave in order to decrease abuse and increase the predictability of employee absence. Others have redesigned their short-term disability program benefits to more closely match the workers' compensation benefit and vice versa. An increasing number of employers who provide salary continuation or short-term disability coverage are expanding their workers' compensation return-to-work programs to cover non-occupational conditions as well.

III. ACKNOWLEDGE THE POWERFUL CONTRIBUTION THAT MOTIVATION MAKES TO OUTCOMES AND MAKE CHANGES THAT IMPROVE INCENTIVE ALIGNMENT

7. Pay Doctors For Disability Prevention Work to Increase Their Professional Commitment to It

Disability prevention and management takes both physician time and cognitive work; it requires a lot more than just filling out a form. Yet doctors are seldom paid extra for collaborating in the SAW/RTW process. This in part reflects reluctance of payers to pay for these services, and in part is due to doctors not knowing how, or whether, to ask for payment. In either case, the doctor is prone to presume this work is unimportant because it has no market value, and give it low priority. For routine cases this has only minor impact. In more complex situations that could benefit from the doctor's initiative or active participation, the monetary disincentive reflected by lack of payment often deters the doctor from responding quickly or making the extra effort, often delaying SAW/RTW.

Since most doctors don't consider disability prevention their responsibility, their passivity does not represent a failure to carry out their perceived duty. Although employers and insurers may assert that disability management should be included in the price of the medical visit, those words have little impact on physician behavior.

Recommendation: Develop ways to compensate physicians for the cognitive work and time spent on evaluating patients and providing needed information to employer and insurers, and on resolving SAW/RTW issues. A draft design for new multi-level CPT codes for disability management proposed by the ACOEM Coding Committee reveals the variety and extent of the intellectual work that physicians must do in performing this task. Simple adoption of a new CPT code (and payment schema) for functional assessment and triage of patients could achieve similar goals. Payers may be understandably reluctant to pay all doctors new fees

for disability management because of reasonable concerns about billing abuses -- extra costs without improvement in outcomes. We recommend that the ability to bill for these services be a privilege, not a right, for providers, and that the privilege be contingent on completion of training and an on-going pattern of evidence-based care and good faith effort at achieving optimal functional outcomes.

Current Initiatives and Best Practices:

- An innovative operation in Victoria and New South Wales, Australia, builds working relationships between selected local providers and employers. Instead of contracting for discounted fees, the employer customers agree to pay full fees in exchange for the selected providers' agreement to learn about the employer's programs, and collaborate and communicate promptly. The selected providers are also paid additional fees for the extra effort spent on communications. Under Australian state law, the employers cannot direct the employee where to go for injury care, but are nevertheless generally able to voluntarily channel more than 85% of injured workers to the selected providers.

- A workers' compensation insurer in Massachusetts selected and trained a network of primary occupational medicine providers (POPs) and asked them to help manage the situation caused by the injury or illness as well as manage the medical condition. The insurer paid these doctors their full fee-schedule rates for medical care PLUS a modest fixed fee for "situation management" for every case they handled. Half of the new fee was held back and paid as a bonus if the doctor's overall pattern of care revealed good overall results – appropriate medical costs, good patient and employer satisfaction, and low disability rates. Another aspect of the program was a very aggressive effort at teaching employers to channel to the POPs. Many employers were able to channel more than 85%. The net results were good: the fraction of workers' compensation injuries that became lost time injuries was 6-8% lower when the treating physician was a POP.

8. Support Appropriate Patient Advocacy by Getting Treating Doctors Out of a Loyalties Bind

Governmental agencies, insurers and employers expect doctors to provide unbiased information that verifies what their claimants / employees have said about their medical conditions and ability to work. Some of this information will be used as a means to validate claims and manage attendance, and may be used to award or deny monetary or other benefits, or as the basis for personnel actions. Doctors are often made aware of this by their patients. The medical profession does not acknowledge any duty to play this role as corroborator of fact for third parties, especially considering that negative financial consequences for patients may result. In fact, the doctor has a sworn and solemn duty to advocate for the patient, and to consider the patient's interest before his or her own.

That said, many doctors have not thought carefully about what patient advocacy means in the context of SAW/RTW. Most of the time, being an effective advocate for a patient's health and safety would mean promoting employment and full social participation. But the scope of "patient advocacy" varies from doctor to doctor, with some using their role as physician to advocate for whatever their patient wants, or their economic well-being, or even for social justice.

Historically, the main way that employers and insurers have dealt with this is through the independent medical examination process.

Recommendations: The SAW/RTW process needs to recognize the treating doctor's allegiance, reinforce the primacy of the commitment to the patient / employee's health and safety and avoid putting the treating doctor in a bind of conflicting loyalties. Focusing on function will reduce split loyalties and avoid breaches of confidentiality. Simpler, quicker, and less adversarial means of obtaining corroborative information need to be employed. Creative ways to allow treating physicians to participate in SAW/RTW without betraying their sense of loyalty to patients need to be developed.

Current initiatives and best practices:

Employers and insurers who get the best return-to-work results and have the lowest disability rates:

- Take charge of the process from the start, not letting it ever appear the doctor is in charge of making employment decisions.
- Inform treating doctors that the employer has a temporary transitional work program and that most workers are expected to recover on the job.
- Make it clear that they can provide work within a wide range of functional abilities, and will be careful to abide by any guidelines set by the doctor.
- Stop asking doctors to set return to work dates, and instead ask the doctors to provide functional capacities, restrictions, and limitations.
- Use metrics such as work days lost per 100 injury/illness episodes to track the effectiveness of their programs.

9. Increase "Real-Time" Availability of On-The-Job Recovery, Transitional Work Programs, and Permanent Job Modifications

A cornerstone of disability prevention is allowing workers to recover on the job. Most commonly this takes the form of transitional work programs (sometimes referred to by other terms such as temporary modified work, alternative duties, or light duty) that let workers return to work at partial capacity during their recuperation period. On-the-job recovery usually involves a temporary change in job tasks, work schedule, or work environment, and often requires a reduction in performance expectations for the limited duration of the assignment, generally not more than 90 days. Workers in on-the-job recovery programs are expected to return to their usual jobs, with or without permanent accommodations, once the temporary assignment is complete.

Permanent job modifications such as task re-design or a switch to ergonomically-designed tools may also allow for recovery on the job. However, permanent modifications are usually made to enable employees to continue working their usual jobs without interruption, and to meet the regular performance expectations of that job.

Currently, the main problems that get in the way of workers recovering on the job are:

- Employers whose formal or informal practice is not to take workers back until they can do their regular jobs, and employers who have return to work programs on paper only. There are many employers who still refuse to provide temporarily modified work, and there are many labor agreements that prohibit it. Insurers that give discounts to employers who say they have transitional work programs typically fail to confirm that the programs are actually used. Few employers provide financial incentives to supervisors to make arrangements for on-the-job recovery by

subsidizing the labor cost of transitional work programs. Few also appropriately allocate the cost of disability benefits to the operating units whose failure to keep workers safe or provide transitional work has created the lost workdays.

- The bad reputation of "light duty." Based on their past experience, both employers and workers may see light duty as a dead-end, a permanent sinecure, a parking lot for favorites and aging workers who can no longer keep up. Others have seen light duty used as a punishment. They resist it out of fear they will be given nothing or only meaningless work to do, or will be ordered or pressured to violate their work restrictions, or will be left isolated, or teased and harassed.

- Long lag times. Many companies that do have return to work programs do not use them promptly. They are reactive rather than pro-active. When one of their workers becomes ill or injured, they do not anticipate the need for transitional work assignments but instead wait to hear what is needed. After the doctor writes restrictions or the physical or occupational therapist recommends job modifications, the employer has the responsibility to make concrete arrangements for return to work – but the employer often has no internal resource with expertise, operational processes and budget authority to make it happen quickly. This is true for both temporary and permanent job modifications.

Recommendations: Employers should be encouraged, incentivized, or required to have **and actually use** transitional work programs. Employers need to have clearly-written policies and procedures that provide instruction and direction to people in carrying out their responsibilities. Supervisors should be held accountable for the cost of benefits if temporary transitional work is not made available to their injured/ill employees when possible. Where applicable, unions should be consulted in the design of on-the-job recovery programs. Program participation by workers should either be required or strongly incentivized, with ombudsman services made available to protect against abuse. Expert resources should be made available to employers to assist them in implementing and managing these programs on an on-going basis.

Current initiatives and best practices: Successful transitional work programs are now in place in many well-managed organizations, large and small. Over the last several years, these organizations can point to concrete and significant reductions in costs and absenteeism rates caused by implementing transitional work programs. They generously share their success stories at industry conferences.

The Ohio Bureau of Workers' Compensation has made a remarkable investment in statewide Transitional Work Program (TWP) Grants. Under this program, employers are eligible for a state-funded grant of up to $5200 to develop a TWP. Employer participation has been enthusiastic, and program results have improved. Many of the employers have used vocational rehabilitation professionals or physical/occupational therapists to develop the transitional work program for them, and they maintain ongoing service relationships.

California's recent workers compensation reform legislation includes a program to reimburse small employers who purchase adaptive equipment or otherwise modify jobs for injured workers for up to $2500.

An employer consortium sponsored and led by the occupational medicine program at a clinic in Illinois provides guidance and support to small- and medium-sized local employers in setting up and running their transitional work programs. Employers are grateful and provide enthusiastic support.

The Australian state of New South Wales requires all employers with more than 200 employees to appoint an in-house injury manager who is responsible for creating return to work plans.

10. Be Rigorous Yet Fair and Kind to Reduce Minor Abuses and Cynicism

As described earlier, the disability benefit system is often used inappropriately as a means to solve other problems – taking sick leave in order to stay home and care for a child, using sick leave for "mental health days", developing a headache and staying home the day after a disappointing or upsetting event at work – and the rules are stretched in order to receive benefits when there is no real medical justification.

The more this is allowed to happen, the more people start to assume that everyone is engaging in such behavior. Eventually, anyone who files a claim is treated with cynicism or suspicion. Those with legitimate needs may be treated unkindly and the SAW/RTW process may become unpleasant for them. In many industries, such an attitude is widespread and seriously hampers the SAW/RTW process.

Additionally, if transitional work programs are allowed to become permanent havens for non-productive workers, both employees and supervisors lose enthusiasm for them. Likewise, if light duty is used to demean, harass, or ostracize workers, the programs may become counterproductive.

Recommendations: Programs that allow employees to take occasional time off without the need of a medical excuse (such as paid time off programs) should be encouraged. The negative effect of turning a blind eye to inappropriate use of disability benefit programs should be more widely understood. Petty corruption should be discouraged by means of consistent and rigorous program administration. Methods of reducing widespread cynicism among management and workers about disability benefit programs should be devised and deployed. All parties should be trained how to face situations squarely without becoming adversarial. Workers involved in the SAW/RTW process should be treated with courtesy, kindness, and fairness.

11. Devise Better Strategies To Deal With Bad Faith Behavior

There are many parties to individual cases in the disability benefits system: employees, their families, their supervisors, employer management, treating clinician(s), insurance carriers, benefits administrators, case managers, union representatives, and lawyers.

A few individuals in each group step beyond the line of appropriate behavior, manipulating the SAW/RTW process to the point of serious abuse or clearly fraudulent activity. For example, some employers pressure workers not to report work-related injuries, fire those who do, force recovering workers to work beyond their limits, or continue to put injured workers in unsafe work environments. Some insurers take advantage of unsophisticated workers or employ unethical claims practices. Some employees manufacture injuries, intentionally exaggerate symptoms, or fraudulently claim benefits for prolonged periods. Some treating clinicians attempt to maximize their fees by continuing treatment and authorizing disability past the point of medical necessity, sometimes to the detriment of the patient and sometimes in collusion with the patient. Other clinicians have lost their independence and simply do the bidding of employers, insurers, or lawyers.

Employers and insurers exert a lot of effort identifying and dealing with employees who take advantage of the system, and to a lesser extent with doctors that do the same. In comparison, little attention has been paid to the harm done to injured or ill employees when their claims adjuster or employer gives them poor service or engages in inappropriate or illegal behavior.

Often, the only recourse available to the injured worker or employee with a complaint is a lawyer. Most people who seek counsel do so only after a problem has arisen. The legal system is a poor substitute for good customer service and fair treatment. Judicial remedies are not usually therapeutic in nature or in timing. People who feel they have been ill-served and retain lawyers get involved in a system that by its adversarial nature hardens and polarizes positions, delays resolution until after the window of opportunity to prevent needless disability has closed, and increases the likelihood of poor functional outcomes.

One multi-state insurer's analysis shows that the median cost of a workers' compensation claims in which the claimant has legal representation is about $30,000 more than those without lawyers involved. The median cost of represented claims is between 10 and 20 times higher than the median cost of unrepresented ones.

Recommendations: In addition to continuing efforts to rein in bad behavior by claimants and doctors, more effort needs to be devoted to identifying and dealing with employers or insurers who do not play fair in SAW/RTW efforts and do not respect the legitimate needs of employees who are dealing with a medical condition. We recommend that some form of complaint investigation and resolution service, such as ombudsman services, be made available to employees who feel they have received poor service or are being treated unkindly, inappropriately, or unfairly.

IV. INVEST IN SYSTEM AND INFRASTRUCTURE IMPROVEMENTS

12. Educate Physicians on Why and How to Play Their Role in Preventing Disability

Few doctors have ever received training in disability prevention and management. Virtually no medical school courses address this area, and neither do residencies and internships. Two specialties are the exception: occupational medicine and physiatry, both of which consider the issue of functional ability a major focus of their work.

Doctors in most other specialties don't clearly understand how the process works; don't see SAW/RTW as part of the practice of medicine; don't see it as their duty; and so are uninterested in it. Yet the average doctor who treats working-age adults usually signs five or more work-related letters or notes to employers and payers per week, and is by definition a regular participant in SAW/RTW. Because of this, they may allow workers to return to work who should not, and then disable those who could be working.

Medical educators are already overwhelmed by the volume of knowledge that must be transmitted to students and practitioners. Although function is now acknowledged as having a greater impact on quality of life than serious illness, most requests to medical schools from employers and insurers to integrate evaluation of function in their teaching and testing of skills have been politely ignored.

Recommendations: All treating physicians should be educated in the basics of disability prevention, disability management, and their role in the SAW/RTW process. Advanced

training should also be provided using methods and modes that will be attractive to and effective with physicians. Most likely, such training will have to take place at the behest of employers and insurers – not the medical profession itself. Appropriate privileges and reimbursements should be available to physicians who have been trained (e.g. membership in special networks). Treatment guidelines should routinely include attention to function where adequate supporting medical evidence exists.

Note that the knowledge and skills to be imparted are consistent with current recommendations that medicine in general shift from a reactive disease-oriented paradigm to a proactive health-oriented one.

Current Initiatives and Best Practices: The American College of Occupational and Environmental Medicine and the American Academy of Orthopedic Surgeons have active educational efforts underway within their professional societies, with courses on disability-related topics at all annual conferences.

As part of a larger initiative to focus disease management and benefit cost reduction programs at the community level, several employers in West Virginia and Idaho have embarked on an initiative to award quality points towards bonuses to those local physicians who attend a live training session or take a short web-based course in disability prevention and return to work communications.

Two workers' compensation healthcare provider networks in California and Florida have already strongly encouraged their physicians to take a course in disability prevention. Other networks have similar programs now in development.

The State Compensation Insurance Fund of California has recently decided to make disability management training a requirement for key clinicians in its medical provider network (MPN).

13. Disseminate Medical Evidence Regarding the Benefits on Recovery of Staying at Work and Being Active

There is strong evidence that activity is necessary for optimal recovery from injury / illness / surgery, while inactivity delays it. Moreover, for an array of conditions including depression, chronic pain, fibromyalgia, and chronic fatigue syndrome, simple aerobic physical activity has been shown to be an effective treatment. There also is evidence that remaining at or promptly returning to some form of productive work improves clinical outcomes as compared to passive medical rehabilitation programs. Therefore, the ACOEM Practice Guidelines consistently recommend exercise, active self-care, and the earliest possible safe return to work.

In spite of this evidence, inactivity, work avoidance, and passive medical rehabilitation programs are often prescribed as treatment, leading to adverse patient outcomes.

Recommendations: Large scale educational efforts need to be undertaken so that treating clinicians and other system participants prescribe inactivity only when medically required, and activity recommendations become a routine part of all medical treatment plans. Wherever possible, regulations or policies should specify that medical care must be consistent with current medical best practices, or even better, an evidence-based guideline should be adopted as the standard of care.

Current Initiatives and Best Practices: The State of California has recently adopted the ACOEM Practice Guidelines as the best available evidence-based standard of care for new workers' compensation injuries. California law says that the Guidelines shall be "presumptively correct on the issue of extent and scope of medical treatment." (http://www.dir.ca.gov/dwc/DWCPropRegs/UR_ISOR.doc) The State of Colorado also has developed evidence-based treatment guidelines, and requires those who perform independent medical evaluations to take a rigorous state-sponsored training course. Their opinions must conform to state standards.

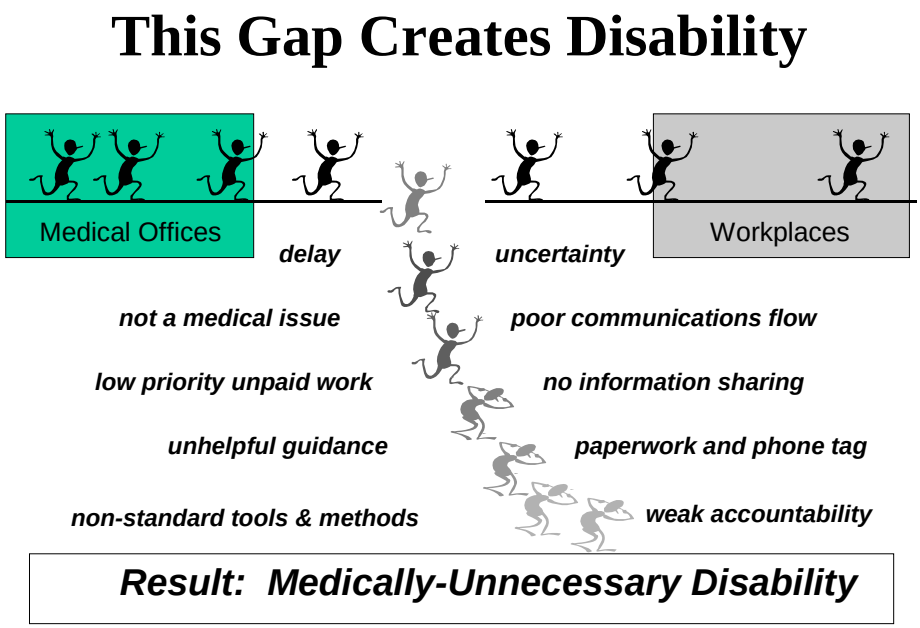
14. Simplify and Standardize Methods of Information Exchange Between Employers / Payers and Medical Offices

Though doctors play an important role in the SAW/RTW process, they are typically given too little information to play their role effectively. Often the employee is the doctor's only source of information, because the employer is not visible. Employers usually do not send any information to the doctor about an employee's functional job requirements, their SAW/RTW programs, their commitment (or lack of it) to employee well-being, or how to get questions quickly answered or problems addressed.

Claim administrators often request information from the doctor to help in managing their claim. They tend to use a generic approach that does not match up the information requested with the actual simplicity or complexity of the situation. Questions often seem designed to determine eligibility for benefits rather than to find a way to help the worker return to work. Not enough focus is placed on discussion of patient functionality, which is not subject to confidentiality restrictions. Employers and claims administrators often find it easier and more efficient to send volumes of material to the doctor instead of paring it down to the essential questions for the doctor's convenience.

For their part, many doctors seem unaware of employers' and benefit administrators' legitimate needs for information. Then, when doctors receive poorly-conceived requests for guidance or opinions, they have little tolerance or time for poring through irrelevant or redundant information to find the few useful pieces of data. Many doctors are simply unaware of the impact of their delays or inadequate responses on achieving optimal functional outcomes for their patients.

Both sides of the communication divide are exasperated by the enormous variability in the other's paper forms.



Recommendations: Employers, insurers and benefits administrators should stop using communication methods that are convenient for them but waste the doctor's (largely unpaid) time. They should spend the time to digest, excerpt, or highlight key information so the doctor can quickly and easily spot the key issues and meet the need for prompt and pertinent information in return. In particular, prior medical records should always be sent to the doctor prior to the appointment, since the lack of any documented historical information is a very common problem. Focusing communications more on function will provide a better justification for disability benefit payments and foster return to employment. All parties need to learn to discuss the issues, verbally or in writing, in terms of function, and engage in a mutual search for ways to resolve obstacles.

Current Initiatives and Best Practices: Training can make employer and insurer staff more aware of the practical realities of the doctor's office, and teach how to make information requests that will succeed by fitting in with this rhythm. Successful case managers often fax a single page sheet to the doctor's office the day before a patient's appointment. The sheet contains one or a handful of questions or options, accompanied by checkboxes the doctor can use to answer them. Several new companies are seeking to link medical provider offices with employers and insurers, using various business models to help make the process valuable for all participants

15. Improve and Standardize the Methods and Tools that Provide Data for SAW/RTW Decision-Making

As soon as other people get involved in a worker's SAW/RTW process, they need data about work capacity and job demands on which to base their decisions or take action. Existing methods and tools for obtaining and analyzing data are non-standard and rather crude considering the impact they have on hundreds of thousands of work disability episodes per year.

In the time-pressured setting of everyday patient care, treating doctors typically just improvise and use some form of informed guesswork to come up with work capacity, medical restrictions, and functional limitations on the spur of the moment. Similarly, employees and employers typically use informed guesswork to describe the functional demands of workplace tasks. Most of the time, this method seems to work well enough.

However, whenever ability to work is uncertain or disputed, everyone, especially the courts, develops an appetite for "hard facts" and data. Most of the wide variety of proprietary methods and technologies for determining work capacity now in current use were developed by the private sector.

Although almost all commercial methods and machines claim to have been "scientifically tested," very little high quality research has been published in rigorously peer-reviewed scientific journals. Most of the studies relating tests to work are not published in the leading testing journals because the studies are typically produced for a single employer or entrepreneur under contract. As a result, there is little incentive to publish the results.

Paradoxically, one major study showed that functional capacity evaluations (FCEs) were worse than no testing at all at facilitating appropriate job placement. In that study, a group of patients all underwent functional capacity evaluations. Those whose doctors used data from the FCEs as the basis for their return to work advice did worse than those whose doctors ignored the FCE results and simply reassured and returned the workers to their usual jobs.

Testing of almost any kind is more accurate when people want to pass rather than fail it (for example, when they want to be hired for a job, rather than when the insurance company wants to cut off their benefits). It is ironic, therefore, that work capacity testing is most often done because someone suspects and wants to document weak motivation or malingering – the circumstances under which the technology is weakest.

The lack of rigorous scientific support for the accuracy and practical usefulness of existing work capacity measurement methods has not deterred the measurement industry, because its customers continue to think that "objective hard data" is better than no data.

Table 5 below provides examples of the methods commonly used by physicians to obtain the data needed for SAW/RTW decision-making. For each question or issue to be resolved, the table shows the fast and low cost or simple method typically used in an everyday medical office visit compared to a high cost or complex method that is typically used in a complex or litigated situation. As can be inferred from the table, the range in technical sophistication, time required, and cost is considerable.

Preparing this table made us realize that one important reference has not yet been developed. Physicians who are looking for authoritative information have no resource for the occupational implications of various specific medical conditions or descriptions of patient-specific or task-specific considerations that would generate the need for specific medical restrictions.

1231

Table 5		
	Examples of Methods Currently Available to Physicians	
Question / Issue To Be Resolved	**Low-Cost and/or Simple Method**	**High-Cost and/or Complex Method**
What are the functional demands of the worker's usual job?	Doctor asks the worker what he / she usually does at work.	Doctor relies on data from a job analysis. Doctor reads a multi-page comprehensive functional job description possibly with digital photos/video. The report has been prepared by a trained expert hired by the employer or insurer. The expert did a formal job analysis including making actual measurements at the worksite.
What is the worker's current work capacity and functional limitations?	Doctor asks what the worker can't do; observes the worker's behavior in the exam room; performs a physical exam – and then mentally projects those answers and observations into likely workplace activities	Use data from tests such as treadmill testing (aerobic exercise capacity), functional capacity evaluation (musculo-skeletal work capacity) or neuro-psychological testing (cognitive ability). Tests of other capacities are available but much more rarely used. Doctor reads a report of the worker's visit to a special testing facility, in which he/she performed a set of maneuvers to ascertain the worker's maximum work capacity.
Is there a medical reason why the worker should be removed from work? Is there any specific activity / exposure the worker should avoid for medical reasons?	Doctor uses his/her own knowledge of workplaces and jobs, then thinks about potential situations that might pose a risk to the health / safety of the worker or others -- and writes medical restrictions to avoid them.	Other than disability duration guidelines that specify the length of time people are typically absent from work for various conditions, no clinical resource is available. We are unaware of any reference that systematically reviews the occupational implications (medical concerns and functional issues) of various medical conditions. Neither a consensus-based encyclopedic reference nor a systematic and comprehensive review of evidence-based medical literature exists yet.
	(continued on next page)	

Can this worker with this functional capacity and these medical restrictions do this particular job?	Make an informed guess. The doctor uses whatever information is available to decide whether the worker's current capabilities match with the job demands. OR The employer or insurer looks for a match. They compare the employee's abilities as portrayed in a doctor's note with the demands of available jobs	Doctor relies on data from functional testing. Using information about a particular job, a testing facility devises a set of maneuvers that duplicate the maximum functional demands required by the tasks of that particular job. Then the worker attempts to perform those critical tasks. The areas of mismatch are the tasks that the worker cannot perform.
Ways of modifying jobs / making accommodations	The doctor makes a suggestion based on his/her previous life and practice experience. The employer may seek advice from a consulting physician with occupational medicine expertise.	Doctor relies on data in a report written by a vocational counselor or similarly trained and qualified professional who has evaluated the situation in detail and made recommendations.

Recommendations: Standardization of key information and processes could help doctors participate more efficiently in SAW/RTW. Sending functional job descriptions to doctors at onset of disability should become routine. In order to be available at time of need, these descriptions must be prepared ahead of time by employers and stockpiled at the benefit administrator. They should focus on critical (meaning maximum) functional demands of individual job tasks, and be both accurate and up-to-date. Practical "bedside" methods of determining and documenting functional capacity should be routinely taught to doctors. Purveyors of functional capacity evaluation methods and machines should be required to provide published evidence of high quality peer-reviewed trials comparing their adequacy to other methods. Government, employers, insurers, or foundations may be appropriate sources for funding that research.

Current best practices and initiatives: Many occupational medicine physicians ask workers carefully-designed questions about everyday activities or observe them while they perform a simple set of office-based maneuvers in order to quickly obtain objective information on which to base their opinions. Occupational medicine specialists commonly tour the plants of their industrial clients in order to familiarize themselves with the physical work environment and the tasks of specific jobs. Many employers have already developed detailed functional job descriptions as part of their ADA compliance program. Some have modified their claim intake process to include mailing the worker's job description to the treating physician. Some large companies are developing a computerized database of all tasks including each task's critical (most difficult) functional demands. A few companies are using job-specific functional testing at time of hire as well as at routine intervals after injury or illness in order to assure that workers are assigned tasks within their capabilities. Both vendors and purchasers of evaluation methodologies are beginning to see the necessity of demonstrating validity and reliability in well-designed and controlled peer-reviewed trials.

16. Increase the Study of and Knowledge About SAW/RTW

The SAW/RTW process has not been systematically and formally studied in much detail, and certainly not in proportion to its significance for the well-being of millions of workers. Little data exists describing process metrics or patient outcomes. There is a dearth of solid

methodological foundation or medical evidence to support methods and tools commonly in use, or to form the basis for improving them.

Many millions of public health dollars have been spent studying the adequacy of healthcare services and experimenting with ways to improve outcomes for the poor in Medicaid programs, and the elderly in Medicare programs. Virtually no public health funding or research has asked or answered similar questions regarding the adequacy of healthcare services and resulting outcomes for the employed population served by the workers' compensation system. The failure of the states and the private sector to address these issues is good fodder for those who think that workers' compensation should be federalized, or who argue for a larger federal role in regulating it.

With regard to disability benefits, some publicly-funded published research has been done only on the long-term disabled population served by Social Security disability insurance in the United States. This is in contrast to Europe, which distinguishes between the long-term disabled and the newly or temporarily disabled, and does research on both. Virtually no U.S. research money or effort has been devoted to studying the adequacy of medical services and outcomes of care for the people served by the state-based and private disability benefits systems. As with workers' compensation, the failure to address these issues may point to a need for a federal agenda.

Recommendations: A description of the SAW/RTW process should be compiled and widely disseminated, along with recommendations on how to best implement change to achieve desired results in disability outcomes. Industry-specific as well as broad-based research programs should be established and funded, perhaps in the form of independent institutes or as enhancements to university-based programs. Existing research findings should be collected, tabulated, and the findings should be analyzed and published. Research agendas should be formulated in order to gain a richer understanding of current practices and outcomes, to determine best practices, and to test alternative solutions to addressing problems. A dissemination framework should be developed that effectively communicates the findings of completed research to all stakeholders, especially decision-makers. This framework should also solicit needs for future research.

A sampling of research topics of interest might include:

- Screening tools that accurately predict relative risk of long-term functional disability, and provide a basis for therapeutic interventions.
- The long term natural history of prolonged absence or withdrawal from work. What does happen to these people?
- Controlled trials of various claims and clinical interventions designed to improve medical and functional outcomes.
- A systematic assessment and catalogue of the functional implications and occupational considerations related to the 300 or so medical conditions that most commonly cause disability.
- Comparison of means to assess work ability / capacity.
- Ways to standardize and increase the availability and usability of functional job descriptions.
- Study of physician behavior in dealing with role conflict.

- Controlled trials that compare different methods for training physicians in disability prevention, and assess the impact of that training on clinical, functional, and financial outcomes.
- Ways to increase the recognition and effective treatment of psychiatric co-morbidities.
- Effective ways to streamline communications between participants in SAW/RTW.
- Comparison of different methods to reward physicians for active participation in the SAW/RTW process.

SUMMARY AND CONCLUDING REMARKS

It is our opinion that the current SAW/RTW process too often fails to meet the needs of patients, their employers, benefits payers, and society as a whole.

Although most people with injury or illness are able to cope with their problem and receive the support needed to adjust their life and work either temporarily or permanently, a very important minority of them are not. These people do not recover successfully, do adopt a disabled self-concept, and end up either with needlessly prolonged absence or permanent withdrawal from work – and are lost to the productive side of the economy. In problematic situations, the SAW/RTW process is usually inadequate and ill-suited to detect and effectively address the issues that are most important to the outcome. The small fraction of troublesome situations accounts for the vast bulk of needless expenditures for disability benefits. Because this small number of claims accounts for such a large portion of all disability program costs, a one percent reduction in cases with prolonged disability should generate a substantially larger reduction in overall system cost.

In keeping with our roots as a preventive specialty, we recommend that the focus of the SAW/RTW process shift away from “managing” or “evaluating” disability towards preventing it. We contend that the fundamental reason for a considerable fraction of lost workdays and lost jobs is not medical necessity but rather non-medical decision-making and poor functioning of the SAW/RTW process.

Employers, insurance carriers and governmental agencies that are currently burdened by the costs of preventable disability, and that are worried about the implications of an aging workforce for future trends, should consider underwriting efforts to prevent disability more effectively.

As is reflected in the recommendations we have made throughout this paper, improving the SAW/RTW process will require:

- A sense of urgency
- Attention and priority
- Research
- Experimentation with new methods and interventions
- Infrastructure development
- Policy revision
- Methodological improvement and dissemination
- Education and training

- Incentive alignment
- Funding

Common sense evidence abounds that keeping people at work and productively contributing to society is good for them and for society. To avoid the unfortunate outcome of iatrogenic or system-induced disability is worthwhile. To improve the appropriateness and usefulness of services available to people who are coping with illness and injury in their lives is also of value. And it is sensible, if not urgent, for us as a society to curtail the needless use of resources and loss of personal and industrial productivity.

Making improvements in the SAW/RTW process will require sustained attention and effort, and a willingness to explore new ways of doing things. We hope that this white paper will stimulate thinking and begin a regular dialogue with other stakeholders to explore this topic in progressively more depth. We also hope that the national and international conversation about the societal issue of disability will be more informed and fruitful as a result, and that this will catalyze productive changes in the system.

APPENDIX: TOPICAL BIBLIOGRAPHY

Below is a list of references that we used in educating ourselves and preparing this document. This topical bibliography is divided into sections that correspond roughly with the sections of the paper. Some references are applicable to more than one area. In general, these materials corroborate the major points made in this paper.

The SAW/RTW process has itself not been the subject of as much scientific research as other medical and public policy areas of comparable import to society. Some of our major concerns lie in areas that have not been rigorously investigated yet, probably due to lack of interest or availability of funding. (This in itself is one of our major concerns.) As a result, some topics have fewer or weaker supporting references than would be available if more research had already been done.

Background

Disability Status: 2000. US Department of Commerce, US Census Bureau. C2KBR-17. March 2003.

What is the Stay-at-Work / Return-to-Work (SAW/RTW) Process?

Barron BA. Disability Certification in Adult Workers: A Practical Approach. Am Fam Physician. 2001 Nov 1;64(9):1579-86.

Frank AL. Approach to the Patient with an Occupational or Environmental Illness. Primary Care: Clin Office Pract. 2000;27(4):877-94.

Foye PM. Stitik TP. Marquardt CA. Cianca JC. Prather H. Industrial Medicine and Acute Musculoskeletal Rehabilitation: 5. Effective Medical Management of Industrial Injuries: From Causality to Case Closure. Arch Phys Med Rehabil. 2002;83(3 Suppl 1):S19-24, S33-9.

Wyman DO. Evaluating Patients for Return to Work. Am Fam Physician. 1999;59(4):844-8.

1. Increase Awareness of How Rarely Work Disability is Medically-REQUIRED

Christian, J. Most Days “Off Work on Comp” May Be Unnecessary. The OEM Report. 1998;12(7):65-70.

Colledge AL. Johnson HI. SPICE – A Model for Reducing the Incidence and Costs of Occupationally Entitled Claims. Occup Med. 2000;15(4):695-722, iii.

Krause N. Frank JW. Dasinger LK. Sullivan TJ. Sinclair SJ. Determinants of Duration of Disability and Return-To-Work After Work-Related Injury and Illness: Challenges for Future Research. Am J Ind Med. 2001;40(4):464-84.

American College of Occupational and Environmental Medicine, “Cornerstones of Disability Prevention and Management,” Chapter 5, Occupational Medicine Practice Guidelines, 2nd edition, 2004.

2. Urgency is Required Because Prolonged Time Away From Work is Harmful

Bartley M. Unemployment and ill health: understanding the relationship. J Epidemiol Community Health. 1994;48(4):333-337.

Bellamy R. Compensation neurosis: Financial reward for illness as nocebo. Cl Ortho Rel Res 1997;336-94-106

Gerdtham UG, Johannesson M. A Note on the Effect of Unemployment on Mortality. J Health Econ. 2003;22:505-518.

Guirguis,S. Unemployment and Health: Physicians' Role, Int Arch of Occ and Env Health, Supplement 72. 1999; S10-S13.

Harris,I, Multford J, Solomon M, et al. Association Between Compensation Status and Outcome After Surgery. JAMA. 2005;293:13: 1644-52.

Jin RL, Shah CP, Svoboda TJ. The impact of unemployment on health: a review of the evidence. Canadian Med Assoc J. 1995;153(5):529-540.

Johoda M. Employment and Unemployment. Cambridge: Cambridge University Press; 1983.

Martikainen PT, Valkonen T. The Effects of Differential Unemployment Rate Increases of Occupation Groups on Changes in Mortality. Amer J Pub Health. 1998:88;1859-1861.

Mathers CD, Schofield DJ. The Health Consequences of Unemployment: the Evidence. Med J Australia. 1998:168;178-182.

McGill, CM. Industrial back problems: A control program. J of Occ Med 1968: 10: 174-178

Nachemson, A Work for all – for those with LBP as well. Clin Orth & related Research. 1983:179: 77-85.

Sander R, Meyers J. The relationship of disability to compensation status in railroad workers. Spine. 1986; 11: 141-143.

Stewart JM. The Impact of Health Status on the Duration of Unemployment Spells and the Implications for Studies of the Impact of Unemployment on Health Status. J Health Econ. 2001:20;781-796.

Strang, JP, The Chronic Disability Syndrome, Evaluation and Treatment of Chronic Pain, ed. Aronoff GM (Baltimore, Maryland: Urban & Schwarzenberg, 1985): 247-258.

3. People's Normal Human Reactions Need to Be Acknowledged and Dealt With

Clark AE, Oswald AJ. Unhappiness and Unemployment. Econ J. 1994;104:648-659

Ensalada LH. The Importance of Illness Behavior in Disability Management. Occup Med. 2000;15:739-54.

Gard G. Sandberg AC. Motivating Factors for Return to Work. Physiother Res Int. 1998;3(2):100-8.

Melamed S. Ben-Avi I. Luz J. Green MS. Objective and Subjective Work Monotony: Effects on Job Satisfaction, Psychological Distress, and Absenteeism in Blue-collar Workers. J Appl Psychol. 1995;80:29-42.

Stansfeld,SA Rael,EGS Head,J Shipley,MJ and Marmot,MG. Social support and psychiatric sickness absence: a prospective study of British civil servants. Psychol Med, 1997(27);35-48

4. Investigate and Address Social and Workplace Realities

Christian, J. "Reducing Disability Days: Healing More Than the Injury". The Journal of Workers Compensation. 2000;9(2): 30-55.

Dembe AE. Occupation and Disease: How Social Factors Affect the Conception of Work-Related Disorders. New Haven, CT, and London, UK.: Yale University Press, 1996.

Lax M. Occupational Medicine: Toward a Worker / Patient Empowerment Approach to Occupational Illness. Int J Health. 2002;32:515-49.

Waitzkin H. The Politics of Medical Encounters: How Patients and Doctors Deal with Social Problems. New Haven, CT, and London, UK: Tavistock Publications. 1986:141-82.

Winkelmann L, Winkelmann R. Why are the Unemployed so Unhappy? Evidence from Panel Data. Economics. 1998:65;1-15.

5. Find a Way to Address Psychiatric Conditions Effectively

Brodsky CM. Psychiatric Aspects of Fitness for Duty. Occup Med. 1996 Oct-Dec;11(4):719-26.

Gatchel RJ. Polatin PB. Kinney RK. Predicting Outcome of Chronic Back Pain Using Clinical Predictors of Psychopathology: A Prospective Analysis. Health Psychol. 1995;14(5):415-20.

Rigaud MC. Behavioral Fitness for Duty (FFD). Work. 2001;16(1):3-6.

Stansfeld,SA Fuhrer,R Head,J Ferrie,J and Shipley,MJ. Work and psychiatric disorder in the Whitehall II Study. J Psychosom Res, 1997(43); 73-81.

6. Reduce Distortion of the Medical Treatment Process by Hidden Financial Agendas

Hansen JS. Scientific Decision-making in Workers' Compensation: A Long Overdue Reform. Southern Calif Law Rev. 1986;59 S. Cal. L. Rev. 911.

Hunter SJ, Shaha S, Flint D, Tracy DM. Predicting return to work. A long-term follow-up study of railroad workers after low back injuries. Spine. 1998;23(21):2319-2328.

Silverstein M, Mirer F. Labor Unions and Occupational Health. In: Levy B, Wegman D (eds). Occupational Health: Recognizing and Preventing Work-Related Disease and Injury. 4th ed. Ph8iladelphia, PA: D Lippincott Williams and Williams. 2000: 99-109.

Voiss DV. Occupational Injury: Fact, Fantasy, or Fraud? Neurol Clin. 1995:13;431-46

7. Pay Doctors for Disability Prevention Work to Increase Their Professional Commitment to It

Atcheson SG. Brunner RL. Greenwald EJ. Rivera VG. Cox JC. Bigos SJ. Paying Doctors More: Use of Musculoskeletal Specialists and Increased Physician Pay to Decrease Workers' Compensation Costs. J Occup Environ Med. 2001;43(8):672-9.

8. Support Appropriate Patient Advocacy by Getting Treating Doctors Out of a Loyalties Bind

Drury DL. Vasudevan SV. Denied Workers' Compensation Claims: What Physicians Can and Cannot Do. WMJ. 1998;97(11):20-2.

Lax MB, Manetti FA, Klein RA. Medical Evaluation of Work-Related Illness: Evaluations by a Treating Occupational Medicine Specialist and by Independent Medical Examiners Compared. Int J Occup Environ Health. 2004;10:1-12

Radosevich DM, McGrail MP Jr, Lohman WH, Gorman R, Parker D, Calasanz M. Relationship of disability prevention to patient health status and satisfaction with primary care provider. J Occup Environ Med. 2001;43:706-712.

9. Increase "Real-Time" Availability of On-The-Job Recovery, Transitional Work Programs, and Permanent Job Modifications

Bernacki EJ. Guidera JA. Schaefer JA. Tsai S. A Facilitated Early Return to Work Program at a Large Urban Medical Center. J Occup Environ Med. 2000 Dec;42(12):1172-7.

Brooker A-S. Smith JM. Cole DC. Hogg-Johnson SA. Workplace Arrangements to Return Injured Workers to Work: Evidence From a Prospective Cohort of Workers with Soft Tissue Injuries. Toronto, Ontario: Institute for Work and Health; 1998

Loisel P Abenhaim L Durand P et al A Population-based randomized clinical trial on back pain management Spine, 1997(22);2911-2918

10. Be Rigorous Yet Fair and Kind to Reduce Minor Abuses and Cynicism

Bush T. Cherkin D. Barlow W. The Impact of Physician Attitudes on Patient Satisfaction with Care for Low Back Pain. Arch Fam Med. 1993;2:301.

Hardberger P. Texas Workers' Compensation: A Ten-year Survey -- Strengths, Weaknesses, and Recommendations. St. Mary's Law J. 2000. 32 St. Mary's L. J. 1.

Sawney P. Current Issues in Fitness for Work Certification. Br J Gen Prac. 2002 Mar;52(476):217-22.

11. Devise Better Strategies to Deal with Bad Faith Behavior

Dworkin RH. Handlin DS. Richlin DM, et al. Unraveling the Effects of Compensation, Litigation and Employment on Treatment Response in Chronic Pain. Pain. 1985;49-59.

Rogers R. Clinical Assessment of Malingering and Deception. New York, NY: Guilford Press; 1998.

Wyman DO. Evaluating Patients for Return to Work. Am Fam Physician. 1999 Feb;36(1):2-9.

12. Educate Physicians on Why and How to Play Their Role in Preventing Disability

American College of Occupational and Environmental Medicine, The Attending Physician's Role in Helping Patients Return to Work After an Illness or Injury. Consensus Opinion Statement, April, 2002

American Association of Orthopedic Surgeons, American Academy of Orthopedic Surgery, Early Return to Work Programs, Position Statement, September, 2000.

Abenhaim L, Rossignol M, Gobeille D, Bonvalot Y, Fines P, Scott S. The prognostic consequences in the making of the initial medical diagnosis of work-related back injuries. Spine. 1995;20:791-795.

Canadian Medical Association, The Physician's Role in Helping Patients Return to Work After an Illness or Injury, Policy Statement, 1997, updated 2000.

Hartvigsen J. Kyvik KO. Leboeuf-Yde C. Lings S. Bakketig L. Ambiguous Relation Between Physical Workload and Low Back Pain: A Twin Control Study. Occup Environ Med. 2003 Feb;60(2):109-14.

Himmelstein J, Pransky G, Sweet C. Ability to Work and the Evaluation of Disability. In: Levy B, Wegman D (eds). Occupational Health: Recognizing and Preventing Work-Related Disease and Injury. 4th ed. Phildelphia, PA: Lippincott Williams and Williams, 2000:268-70.

Pransky G, Katz JN, Benjamin K, Himmelstein J. Improving the physician role in evaluating work ability and managing disability: a survey of primary care practitioners. Disabil Rehabil. 2002;24: 867-874.

13. Disseminate Medical Evidence Regarding the Benefits on Recovery of Staying at Work and Being Active

Allen C, Glasziou P, Del Mar C. Bed Rest: A Potentially Harmful Treatment Needing More Careful Evaluation. Lancet. 1999 Oct 9;354(9186):1229-33.

Gilbert S, Kerley A, Lowdermilk A and Panus PC. "Nontreatment variables Affecting Return-toWork in Tennessee-Based Employees with Complaints of Low Back Pain," Tennessee Medicine 2000; 93: 167-171.

Hilde G. Hagen KB. Jantvedt G. Winnem M. Advice to Stay Active as a Single Treatment for Low Back Pain and Sciatica. Cochrane Database Sys Rev. 2002;(2):CD003632

Malmivaara A. Hakkinen U. Aro T. Heinrichs ML. Koskenniemi L. Kuosma E. Lappi S. Paloheimo R. Servo C. Vaaranen V. et al. The Treatment of Acute Low Back Pain – Bed Rest, Exercises, or Ordinary Activity? N Engl J Med. 1995 Feb 9;332(6):351-5.

Melhorn, JM. CTD Injuries: An Outcome Study for Work Survivability. The Journal of Workers' Compensation. 1996; 5(3): 18-30.

14. Simplify and Standardize Methods of Information Exchange Between Employers / Payers and Medical Offices

Colledge AL. Johns RE Jr. Unified Fitness Report for the Workplace. Occup Med. 2000 Oct-Dec;15(4):723-37.

Lax MB, Manetti F. Access to Medical Care for Individauls with Worker's Compensation Claims. New Solutions. 2001;11:325-48.

Singer M, Baer H. Critical Medical Anthropology. Amityville, NY: Baywood, 1995.

15. Improve and Standardize the Methods and Tools that Provide Data for SAW/RTW Decision-Making

Arvey RD, Landon TE, Nutting SM, and Maxwell SE Development of physical ability tests for police officers: a construct validity approach. Journal of Applied Psychology 1992; 77: 996-1009.

Blakley BR, Quinones MA, Crawford MS, and Jago IA The validity of isometric strength tests. Personnel Psychology 1994; 47:247-274

Gouttebarge V, Wind H, Kuijer PP, Frings-Dresen MH. Reliability and validity of Functional Capacity Evaluation methods: a systematic review with reference to Blankenship system, Ergos work simulator, Ergo-Kit and Isernhagen work system. J Occup Rehabil. 2004; Sept 14 (3):217-29.

Gross DP, Battie MC, Cassidy JD The prognostic value of functional capacity evaluation in patients with chronic low back pain: Parts 1-2. Spine 2004;29(8):914-924

Larrabee G Exaggerated MMPI-2 symptom report in personal injury litigants with malingered neurocognitive deficit. Arch Clin Neuropsych 2003; 8:673-686

Myers DC, Gebhardt DL, Crump CE, and Fleishman EA The dimensions of human performance: Factor analysis of strength, stamina, flexibility, and body composition measures. Human Performance 1993; 6:309-344.

Slick DJ, Sherman EMS, Grant LI ,Diagnostic criteria for malingered neurocognitive dysfunction: Proposed standards for clinical practice and research. Clin Neuropsych 1999; 13(4): 545-561

Sproule CF, Schneider RE, Nelson EK, Bennett PJ Physical Ability Test Development & Validation Report. Harrisburg,PA: State of Pennsylvania. 1998 Summary at : http://www.ipmaac.org/cgi-bin/phb.pl/acn/oct98/physical.html?Sproule#first_hit

Tredgett MW Davis TRC Rapid repeat testing of grip stength for detection of faked hand weakenss. J Hand Surg (British and European Volume 2000; 25B(4):372-375

von Restorff, W. Physical fitness of young women: carrying simulated patients. Ergonomics 2000; 43: 728-743.

16. Increase the Study of and Knowledge About SAW/RTW

American College of Occupational and Environmental Medicine, The Attending Physician's Role in Helping Patients Return to Work After an Illness or Injury. Consensus Opinion Statement, April, 2002

American Association of Orthopedic Surgeons, American Academy of Orthopedic Surgery, Early Return to Work Programs, Position Statement, September, 2000.

Abenhaim L, Rossignol M, Gobeille D, Bonvalot Y, Fines P, Scott S. The prognostic consequences in the making of the initial medical diagnosis of work-related back injuries. Spine. 1995;20:791-795.

Butler RJ. Johnson WG. Baldwin ML. Managing Work Disability: Why First Return to Work is not a Measure of Success. Ind Labor Rel Rev. 1995;48:452-69.

Canadian Medical Association, The Physician's Role in Helping Patients Return to Work After an Illness or Injury, Policy Statement, 1997, updated 2000.

Devine EC. Effects of psychoeducational care for adult surgical patients: a meta-analysis of 191 studies. Patient Educ Couns. 1992;19(2):129-142.

Elders LA, van der Beek AJ, Burdorf A. Return to work after sickness absence due to back disorders – a systematic review on intervention strategies. Int Arch Occup Environ Health. 2000;73(5):339-348

Ellenberger JN. The Battle Over Worker's Compensation. New Soultions. 2000:10;217-36.

Hendler N. Return to Work Barriers: How to Overcome Them. J Workers Comp. 1995;5(Summer):9-20.

1631 Kaplan SH, Greenfield S, Ware JE Jr. Assessing the effects of physician-patient
1632 interactions on the outcomes of chronic disease. Med Care. 1989;27(3 Suppl):S110-
1633 27.

1634 LaDou, J. Occupational medicine: the case for reform. Am J Prev Med
1635 2005;28(4):396-402

1636 LaDou, J. The Rise and Fall of Occupational Medicine in the United States. Am J
1637 Prev Med 2002;22(4):285-295.

1638 Mannion AF, Junge A, Taimela S, Muntener M, Lorenzo K, Dvorak J. Active therapy
1639 for chronic low back pain: part 3. Factors influencing self-rated disability and its
1640 change following therapy. Spine. 2001;26:920-929.

1641 Morton WE. The Rise and Fall of Occupational Medicine in the United States. Am J
1642 Prev Med. 2002:23;309.

1643 Reiso H. Nygard J. Jorgensen G. Holanger R. Soldal D. Bruusgaard D. Back to
1644 Work: Predictors of Return to Work Among Patients with Back Disorders Certified as
1645 Sick: A Two-Year Follow-up Study. Spine. 2003 Jul1;28(13):1468-73.

1646 Waddell G, Burton AK, Main CJ. Screening to Identify People at Risk of Long-term
1647 Incapacity for Work – A Conceptual and Scientific Review. London: The Royal
1648 Society of Medicine Press; 2003.