



ACOEM Guideline

Preventing Needless Work Disability by Helping People Stay Employed

Introduction/Background

Each year, millions of American workers develop health problems that may temporarily or permanently prevent them from re-entering the workforce. In most cases, employees are able to stay at work or return to work after a brief recovery period. However, approximately 10 percent of these workers incur significant work absences and/or life disruptions that can lead to prolonged or permanent withdrawal from the workforce. During this non-working period, these individuals are described as “disabled,” and many become involved with in one or more of the existing disability benefit systems and laws – e.g., sick leave, workers’ compensation, short-term disability (STD), long-term disability (LTD), Social Security Disability Insurance (SSDI), the Family Medical Leave Act (FMLA), and the American’s with Disabilities Act (ADA). The estimated total annual cost of disability benefits paid under all these systems exceeds \$100 billion.

This report focuses on the large number of people who due to a medical condition that should normally result in only a few days of work absence, end up withdrawing from work either permanently or for prolonged periods. For many of these workers, their conditions began as a common problem (e.g., a sprain, strain, depression, or anxiety), but escalated resulting in short-term, long-term, or permanent disability. This potentially preventable disability absence has unfortunate consequences for both the employer and the employee.

The fundamental reason for most lost workdays and lost jobs is not medical necessity, but the non-medical decision-making involved in and the poor functioning of a little-known, but fundamental practice employed by U.S. and Canadian disability benefits systems – the stay-at-work/return-to-work (SAW/RTW) process. This process determines whether a worker stays at work despite a medical condition or whether, when, and how a worker returns to work during or after recovery. The SAW/RTW process presently focuses on “managing” or “evaluating” a disability rather than preventing it. This report describes the SAW/RTW process, presents recommendations to improve the process, and provides information on current best practices and initiatives.

What is the SAW/RTW Process?

The usual steps included in the SAW/RTW process are as follows:

1. The SAW/RTW process is triggered when a medical condition or another precipitating event occurs – *in this example, a worker with a badly infected cut on his foot* – raising the question whether the worker can or should do his usual job today.
2. The worker’s current ability to work is assessed on three important dimensions:
 - Functional capacity – what can he do today? *Has the infection made him so sick he simply can’t function at all? If not, what can he do in his current condition?*
 - Functional impairments or limitations – what can’t the worker do now that he normally could? *The acute pain makes it uncomfortable to wear regular shoes and conduct activities that require being on one’s feet.*
 - Medically-based restrictions – what he should not do lest specific medical harm occur? *Would walking, standing, and being on his feet all day actually worsen the infection or delay healing?*
3. Next, the demands of the usual job and/or available temporary alternative tasks are compared with the worker’s current functional capacity, limitations, and medical restrictions.
 - To make this comparison, the functional demands of the tasks or job must be known, including what knowledge, skills, and abilities – physical, cognitive, and social – are required.
 - Specific medical qualification standards (such as those for airline pilots), legal requirements (such as those for truck drivers and crane operators), company policies, or concerns about the safety of co-workers, the public, or the business may also apply.

4. Finally, the actions necessary to resolve the situation and return the worker to work are identified.
 - If the worker can be safe and comfortable doing his or her usual job or can independently make any necessary modifications, he or she should be able to return to work.
 - If the worker is only able to do temporary alternative work that requires the cooperation of others, or if permanent modifications to the job must be made, the employer must make arrangements and implement them. If that happens, the worker can go to work.
 - If not, the worker remains out of work until either the medical condition resolves or the situation changes.

If the job does not demand too much use of the impaired body part or function, the medical condition is minor, and the worker wants to go to work, the preceding steps are accomplished rapidly. However, some situations do not resolve as quickly and require additional steps. At this stage, the SAW/RTW process evolves into a negotiation between the employee (and his advisors) and the employer (and its advisors) regarding whether the employee can return to work. Therefore, Steps 2 through 4 above may need to be repeated at each level. During each repetition, more participants tend to become involved and the situation can escalate with progressively more opinions, data, resources, and time being required to decide when and if the employee can return to work.

For example, in more difficult situations, successive passes require additional assistance from more specialists such as a nurse case manager, physical therapist, an occupational medicine physician, an independent medical examiner, a lawyer, and/or other experts. Functional capacity evaluations may be required to document work capacity. Job analyses may need to be done to document the job demands. The additional effort and resources often produce a paradoxical effect of clouding the situation rather than clarifying it by obscuring basic issues, causing confusion, hardening positions, and polarizing participants.

Table 1 displays the escalation levels of the SAW/RTW process, moving from simplest to most complex. The process ends when a definitive answer is reached – the worker will or will not return to work. However, the three basic questions requiring 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 worker’s functional capacity matches the functional demands, what is required to affect an actual return to work?

Table 1 – The Stay at Work/Return to Work Process Escalation Levels				
<i>The process triggers when a precipitating event, usually health-related, raises the question whether a worker can/should remain at work.</i>				
Escalation Level	Who is involved?	How is current work capacity determined?	How are job demands determined (both usual job& alternatives)?	What triggers the actual return to work?
0	Worker	Personal knowledge	Personal knowledge	Personal decision
1	Worker & Supervisor	Discussion	Discussion	Discussion
1	Worker & Physician	Discussion RTW note from physician	Verbal description of usual job	Discussion
2	Worker Physician Claims adjuster/case manager	Formal inquiry Simple physical capacities form completed by MD	List of job’s functional demands	Discussion
3	Worker Physician 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

Medical conditions vary considerably, as do their impact on work. Table 2 provides examples of the circumstances under which the SAW/RTW process takes place.

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

Medical condition	“Cold” <i>or</i> Acute Food Poisoning	Sprained Ankle <i>or</i> Influenza <i>or</i> Asthma Attack	Femur Fracture <i>or</i> Abdominal Surgery <i>or</i> Treatable Cancer <i>or</i> Major Depression	Bipolar Disorder <i>or</i> Multiple Sclerosis <i>or</i> 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	Multiple providers On-going services Relapse prevention required
Likelihood of full resolution	Always	Always	Usually Some residual impairment possible	Unlikely Fluctuation in functional ability 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. While it has been overlooked because of the incorrect assumption that if the medical condition is promptly and properly treated, the worker will naturally return to work, the process occurs in parallel or is influenced by the following four other well-known processes:

- **Personal adjustment process** deals with the disruption resulting from the illness or injury.
- If the medical situation calls for treatment, the SAW/RTW process occurs in parallel with the **medical care process** comprising diagnosis and treatment.
- If the initial SAW/RTW process results in the worker staying home and if coverage under one or more disability benefit programs is possible, the **disability benefits administration process** begins, operating in parallel with SAW/RTW.
- If permanent or long-term alteration of work capacity occurs, the **ADA “reasonable accommodation” process** might be triggered. It operates in parallel with SAW/RTW. If ADA applies, it will heavily influence what occurs in SAW/RTW.

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 Accommodation Process
Fundamental Issues	Dealing with life disruption: <ul style="list-style-type: none"> ■ 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 <i>(Leader is in italics)</i>	<i>Employee</i>	Employer Employee <i>Treating Clinician</i> Benefit or claims agent	<i>Treating Clinician</i> Employee	<i>Benefit or claims agent</i> Employee Health care provider	<i>Employee</i> Employer
Activities	Thinking Feeling Reacting Talking Coping Adapting	(See Table 1) 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 Symptom resolution Failure to improve Monitoring	Benefit decisions and exchange of money Claim closure	Employment decision

The outcomes produced by the SAW/RTW process profoundly impact the overall health and well-being of patients, their families, employers, and communities, by determining 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 by 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 millions of people and deserves attention.

OBSERVATIONS AND RECOMMENDATIONS

The following portion of this report, grouped under four general recommendations, discusses 16 specific areas in which the SAW/RTW process can be improved:

- I. Adopt a disability prevention model.
- II. Address behavioral and circumstantial realities that create and prolong work disability.
- III. Acknowledge the contribution of motivation on outcomes and make changes to improve incentive alignment.
- IV. Invest in system and infrastructure improvements.

For each of the 16 parts, specific recommendations for achieving optimal outcomes are described and ways to implement these recommendations suggested. When possible, concrete examples are provided of existing improvement initiatives or of programs that achieve better-than-average results by using best practices.

I. ADOPT A DISABILITY PREVENTION MODEL

1. Increase Awareness of How Rarely Disability is *Medically* Required

Only a small fraction of medically excused days off work is medically *required* – meaning work of any kind is medically contraindicated. The remaining days off work result from a variety of non-medical factors such as administrative delays of treatment and specialty referral, lack of transitional work, ineffective communications, lax management, and logistical problems. These days off are based on non-medical decisions and are either discretionary or clearly 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 physician’s decision confirming that a medical condition exists. This implies 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 condition to keep them from working (see Table 4). The key question is what kind of work? Many obstacles that appear to be medical are really situation-specific. For example, an employee with a cast on the right foot cannot drive a forklift, but can perform other tasks until the cast is removed. A person recovering from surgery may not be able to work a full day in the office, but could work half days. In fact, people often sit home collecting benefits because their employers don’t take advantage of their available work capacity. Today, these decisions generally are misclassified as “medical,” and as such are not examined.

Recommendation: Stop assuming that absence from work is medically required and that only correct medical diagnosis and treatment can 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. Instruct all participants about the nature and extent of preventable disability. Educate employers about their powerful role in determining SAW/RTW results.

Current Initiatives/Best Practices: Clinicians, employers, and insurers can now use the following criteria (see Table 4) to determine whether a disability is medically required, discretionary, or unnecessary. If all parties use these definitions, clearer communication and better decision making will result. In particular, physicians will no longer have to make employment decisions, and employers will stop misclassifying business decisions as medical decisions.

Table 4 – When is a Disability Medically Required, Medically Discretionary, or 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
<p>Absence is medically required when:</p> <ul style="list-style-type: none"> ■ Attendance is required at a place of care (hospital, physician’s office, physical therapy). ■ Recovery (or quarantine) requires confinement to bed or home. ■ Being in the workplace or traveling to work is medically contra-indicated (poses a specific hazard to the public, coworkers, or to the worker personally, i.e., risks damage to tissues or delays healing). 	<p>Medically discretionary disability is time away from work at the discretion of a patient or employer that is:</p> <ul style="list-style-type: none"> ■ 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. 	<p>Medically unnecessary disability occurs whenever a person stays away from work because of non-medical issues such as:</p> <ul style="list-style-type: none"> ■ 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 work absence work can cause needless, but significant harm to a person’s well-being. While on extended disability many patients lose social relationships with co-workers, self-respect that comes from earning a living, and their major identity component – what they do for a living. Many key players in the SAW/RTW process do not fully realize the potential harm that prolonged medically excused time away from work can cause. Many think that being away from work reduces stress or allows healing and do not consider that the worker’s daily life has been disrupted. With these attitudes system-induced disability becomes a significant risk.

An article by Harris in the *Journal of the American Medical Association* reconfirmed that workers receiving disability benefits recover less quickly and have poorer clinical outcomes than those with the same medical conditions who don't receive disability benefits. The researchers reported that 175 of the 211 studies meeting their inclusion criteria reported worse surgical outcomes for patients on workers' compensation or involved in litigation. (Only one study reported better outcomes in compensated patients; 35 studies reported no difference.) Of the 86 studies which excluded patients in litigation, the odds of an unsatisfactory outcome were nearly four times higher for the patients on workers' compensation than for those not receiving compensation. These findings are similar to those of other studies, including two previous meta-analyses of outcomes studies, one for workers with chronic pain and the other for closed-head injuries.

Early intervention is the key to preventing disability. Research confirms that people who never lose time from work have better outcomes than people who lose some time from work. Studies have shown that the odds for return to full employment drop to 50-50 after six months of absence. Even less encouraging is the finding that the odds of a worker ever returning to work drop 50 percent by just the 12th week. The current practice of focusing disability management effort on those who are already out of work rarely succeeds.

Recommendation: Shift the focus from “managing” disability to “preventing” it and shorten the response time. Revamp disability benefits systems to reflect the reality that resolving disability episodes is an urgent matter, given the short window of opportunity to re-normalize life. Emphasize prevention or immediately ending unnecessary time away from work, thus preventing development of the disabled mindset, and disseminate an educational campaign supporting this position. Whenever possible, incorporate mechanisms into the SAW/RTW process that prevent or minimize withdrawal from work. On the individual level, the health care team should keep patients' lives as normal as possible during illness and recovery while establishing treatments that allow for the fastest possible return to function and resumption of the fullest possible participation in life.

Current Initiatives/Best Practices: Many employers and some insurers now begin return-to-work efforts on the first day of absence or within 72 hours of being notified of a claim. One large workers' compensation insurer established a group of “pre-injury consultants” to help employers prepare to respond from the moment of injury to avert needless lost work days. Attempts are also underway to detect workers with pre-existing risk factors for prolonged disability in order to manage them more intensively from the onset. Colledge, et al., developed a Disability Apgar test, which evaluates a situation and assigns a risk score. The State Fund of California recently completed a pilot program that assesses risk factors at claim intake and makes suggestions for claim management. A workers' compensation insurer in Australia uses an evidence-based assessment questionnaire at claim intake and specific intervals to speed detection (and intervention) on claims showing signs of delayed recovery.

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

3. Acknowledging and Dealing with Normal Human Reactions

Injuries and illnesses disrupt lives. Even a minor injury may seem like a major occurrence because it is different. People may fear getting into trouble, the need for surgery, or that the injury may end their career. Frequently, they also must learn to deal with unfamiliar workers' compensation and/or disability benefits systems and rules. Employers and insurers often neglect to inform injured or ill employees much about how their disability benefit programs work, what to expect, and how to make the process work smoothly. Physicians often fail to tell their patients much about their condition, and what they can do to achieve the best possible result.

Many injured or ill workers experience stress because coping with these uncertainties can be difficult. The amount of stress a specific individual experiences in a specific situation will vary widely based on factors such as the magnitude of the medical problem, the personal and family situation at the time, and the job situation.

According to medical anthropologists, patients take on the “sick role” and the “dependent patient role” after becoming ill or injured. To recover, they must relinquish these roles. The sick role exempts people from their normal responsibilities while giving them the right to receive care from others and be free of fault. Those who have trouble coping with their circumstances are likely to resist relinquishing those roles, using them instead to feel good about themselves and ensure their future security.

The ability to function and deal with life's problems varies from individual to individual. When people are under stress they function less well and are more susceptible to illness or injury. If the demands of a situation exceed an individual's

ability to cope, and no assistance is provided, the personal adjustment process will stall and recovery and return to work will be delayed. Experience shows that the current processes do not acknowledge these emotional realities. Workers are typically left alone to cope regardless of their situation and their coping skills. Little effort has been devoted to reducing uncertainty and other sources of stress. Individuals caught up in stress that they cannot handle alone are not identified.

Even when SAW/RTW process participants recognize emotional factors, effective assistance is not usually available. Because benefit programs do not cover medical treatment costs, paying for supportive services that will help non-occupational disability patients recover and return to work is usually not considered. In workers' compensation, claims adjusters are reluctant to acknowledge these issues and authorize mental health services, fearing that doing so will lead to a claim for a psychological illness and drastically increased claim cost. However, most of these sick or injured people do not need psychiatric care. They need the education, minor supportive counseling, and reassurance that a friend, family member, social worker, or employee assistance program can provide. Treating physicians could remove much uncertainty and stress by clearly pointing out the functional aspects of medical conditions, options, and length of treatment, thus empowering people to cope on their own.

Recommendation: Encourage all participants to expand their SAW/RTW model to include appropriate handling of the normal human emotional reactions that accompany temporary disability to prevent it becoming permanent. Encourage payers to devise methods to provide these services or pay for them.

Current Initiatives/Best Practices: Some U.S. employers are creating links between their disability benefit programs (workers' compensation, short- and long-term disability), and their employee assistance programs (EAPs), and/or their disease management programs to assure that employees know they can tap into existing support services. A New Jersey insurance agency makes immediate solicitous inquiries after a work-related injury occurs, ensuring that injured workers feel cared for and their questions are answered.

4. Investigate and Address Social and Workplace Realities

Research shows that an individual's social connection to the workplace affects the occurrence of injury and illness as well as the outcome of the SAW/RTW process. Does the worker like his job? How much pressure and decision latitude does the employee have at work? Does the worker get along with his supervisor? These types of factors can play a major role in a person's willingness to return to work, especially when coupled with the emotional adjustment issues. Job dissatisfaction has been shown to be one of the strongest statistical predictors of disability. Home/family considerations may also pose problems for the worker entering the SAW/RTW process. The worker may be tempted to resolve such problems by prolonging disability benefits.

Although many players in the SAW/RTW process acknowledge the importance of these factors, little has been done to effectively address them. Employers and workers often use the disability benefit system to sidestep difficult workplace issues that are obvious to them, but not disclosed to outside parties, i.e., physicians, insurance adjusters. Unless these parties exert a significant effort to discover the underlying facts, interventions to address the real issues are seldom attempted. When key parties to the SAW/RTW process do not know what is actually happening because they lack "inside information," any effort expended on SAW/RTW may be misguided or futile and a waste of resources and time.

Recommendation: The SAW/RTW process should routinely involve inquiry into and articulation of workplace and social realities; establish better communication between SAW/RTW parties; develop and disseminate screening instruments that flag workplace and social issues for investigation; and conduct pilot programs to discover the effectiveness of various interventions.

Current Initiatives/Best Practices: An innovative program that is now being used successfully by several employers and insurers, particularly in Canada, involves a trained facilitator conducting face-to-face discussions between the employee and the first-line supervisor. Each session focuses on "what part of your job can you do today?" All other parties become resources and advisors for the two key participants as they work to resolve the situation. Substantial increases in both employee and supervisor satisfaction with the way these situations are handled and the near-total de-medicalization of the SAW/RTW process are among this program's benefits.

5. Find a Way to Effectively Address Psychiatric Conditions

When a person with underlying psychiatric illness incurs a potentially disabling physical illness or injury, the risk of permanent disability increases unless the psychiatric problem is treated. A significant psychiatric disorder becomes

symptomatic during a period of serious medical illness in more than 50 percent of cases, especially those with a history of a major psychiatric disorder. Many more previously undiagnosed workers also are vulnerable to developing their first 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 patient's mental condition significantly affects his reaction to the illness, adherence to medical treatment, the course of illness, its impact on function, and functional recovery from the physical condition. Psychiatric factors can contribute significantly to permanent disability unless treatment is active and effective. However, the current SAW/RTW process often ignores or doesn't detect or address psychiatric issues. 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, 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 health care professionals understand the need to protect and foster role functioning in personal relationships, they often overlook the importance of role functioning at work. Faced with a patient who describes stress due to difficulties at work, leaving work is often seen as the solution.

Dramatic improvements in psychiatric diagnosis and treatment have occurred during the past 15 years. Although some employers know that psychiatric treatments are potentially cost effective, they also have spent considerable sums on ineffective, expensive therapy. They correctly believe that many mental health providers do not focus on functional recovery but continue with treatments that show no apparent benefit. Payers have not conditioned access and payment on providers' adherence to current treatment principles. As with other chronic conditions, psychiatric disorders may require intermittent intensive early treatment of new episodes as well as long-term, low-level treatment to prevent recurrence.

Recommendation: Adopt effective means to acknowledge and treat psychiatric co-morbidities; teach SAW/RTW participants about the interaction of psychiatric and physical problems and better prepare them to deal with these problems; perform psychiatric assessments of people with slower-than-expected recoveries routine; make payment for psychiatric treatment dependent on evidence-based, cost-effective treatments of demonstrated effectiveness.

Current Initiatives/Best Practices: The Washington State Department of Labor and Industries pioneered an innovative program that provides psychiatric services to injured workers. The agency handles all workers' compensation claims and pays all benefits for the state's insured employers. The agency reached agreement with the state medical association to pay for up to 90 days of psychiatric treatment "as an aid to cure" a physical work-related injury if the initial evaluation, treatment plan, and progress report notes meet certain specifications. Showing a clear connection between the diagnosis and specific barriers to resume working is essential, as is a connection between the treatment plan and removal of those barriers. As long progress is documented, payment continues for up to 90 days.

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

In disability cases, the medical treatment process is often distorted by non-medical factors, with patients often seeking particular diagnoses or treatments to obtain or maximize benefits. Distortion also occurs when employers or benefits claims administrators ask naive physicians precise questions and elicit particular language that later becomes 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. With thousands of different disability benefit plan designs, few physicians can accurately determine the impact their actions may have on a given patient's benefit payments or where hidden agendas may lie. Physicians are uncomfortable when they suspect patients, employers or payers of making requests based on hidden agendas. They often practice "don't ask, don't tell" in such situations, knowing they won't be paid for time spent investigating specifics.

Recommendation: Develop effective ways and best practices for dealing with these situations. Instruct clinicians on how to respond when they sense hidden agendas. Educate providers about financial aspects that could distort the process. Procedures meant to ensure independence of medical caregivers should not keep the physician "above it all" and in the dark about the actual factors at work. Limited, non-adversarial participation by impartial physicians may be helpful. For example, ask an occupational medicine physician to brief the treating clinician. Where possible, reduce the differences between benefit programs that create incentives to distort. Employers are in a better position to do this than other payers.

Current Initiatives/Best Practices: Many employers examine their benefit programs to determine 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 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 are expanding their workers' compensation return-to-work programs to cover non-occupational conditions as well.

III. ACKNOWLEDGE THE CONTRIBUTION OF MOTIVATION ON OUTCOMES AND MAKE CHANGES TO IMPROVE INCENTIVE ALIGNMENT

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

Physicians seldom receive extra compensation for their time and effort in the disability prevention and management aspects of the SAW/RTW process. As a result, they may give those aspects low priority, believing they have no market value. In more complex situations that could benefit from the physician's initiative or active participation, the monetary disincentive reflected by lack of payment often deters the physician from responding quickly or making the extra effort, often delaying SAW/RTW.

Because most physicians 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, such assertions have little impact on physician behavior.

Recommendation: Develop ways to compensate physicians for the cognitive work and time spent evaluating patients and providing needed information to employer and insurers as well as on resolving SAW/RTW issues. ACOEM developed a proposal for new multilevel CPT codes for disability management that reveals the variety and extent of the intellectual work physicians must do in performing this task. Adopting a new CPT code (and payment schema) for functionally assessing and triaging patients could achieve similar goals. Payers may be understandably reluctant to pay all physicians new fees for disability management because of reasonable concerns about billing abuses – extra costs without improvement in outcomes. Make billing for these services a privilege, not a right, for providers and make that privilege contingent on completion of training and an ongoing pattern of evidence-based care and good-faith effort to achieve optimal functional outcomes.

Current Initiatives/Best Practices:

- An innovative Australian operation builds 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.
- A workers' compensation insurer in Massachusetts selected and trained a network of primary occupational medicine providers and asked them to help manage the situation caused by the injury or illness. The insurer paid these providers 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 pattern of care revealed good overall results – appropriate medical costs, patient and employer satisfaction, and low-disability rates. The program taught employers to channel to the providers – many channeled more than 85 percent. Workers' compensation injuries that became lost-time injuries decreased between six and eight percent when the treating physician was a provider.

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

Government agencies, insurers, and employers expect physicians 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 to validate claims and manage attendance and may be used to award or deny benefits or as the basis for personnel actions. Physicians 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 because negative financial consequences for patients may result. In fact, the physician must advocate for the patient and consider the patient's interest first.

However, many physicians have not thought carefully about patient advocacy in the context of SAW/RTW. Frequently, being a patient's health and safety advocate means promoting employment and full social participation. But the scope of "patient advocacy" varies from physician to physician, with some using their role as physician to advocate for whatever their patient wants. Historically, employers and insurers have dealt with this primarily through the independent medical examination process.

Recommendation: The SAW/RTW process should recognize the treating physician’s allegiance; reinforce the primary commitment to the patient/employee’s health and safety and avoid putting the treating physician in a conflict-of-interest situation; focus on reducing split loyalties and avoid breaches of confidentiality; use simpler, less adversarial means to obtain corroborative information; and develop creative ways for treating physicians to participate in SAW/RTW without compromising their loyalty to their patients.

Current Initiatives/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, never let it appear that the physician is in charge of making employment decisions;
- Inform treating physicians 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 carefully abide by any guidelines the physician sets;
- Stop asking physicians to set return-to-work dates, asking them instead to provide functional capacities, restrictions, and limitations; and
- 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

Allowing workers to recover on the job is a cornerstone of disability prevention. This often takes the form of transitional work programs (also known as temporary modified work, alternative duties, or light duty) that allow workers return to work at partial capacity while they recuperate. On-the-job recovery usually involves a temporary change in job tasks, work schedule, or work environment; and often requires reduced 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 they have completed the temporary assignment.

Permanent job modifications such as task redesign or switching to ergonomically designed tools may also allow for recovery on the job. Permanent modifications usually enable employees to continue working their usual jobs without interruption while meeting that job’s regular performance expectations.

Currently, there are three problems that can prevent workers from recovering on the job:

- **Failure to provide temporary modified work.** Many employers still refuse to provide temporarily modified work and many labor agreements prohibit it. Insurers offering discounts to employers who claim to have transitional work programs typically fail to confirm that such 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 created the lost workdays.
- **The bad reputation of “light duty.”** Based on past experience, employers and workers may see light duty as a dead-end for favored or aging workers who can no longer keep up. Others view it as a punishment and resist it for fear they will be given meaningless or no work or will be isolated or harassed.
- **Long lag times.** Many companies don’t use their return-to-work programs promptly. When one of their workers becomes ill or injured they wait for the physician to write restrictions or the physical therapist to recommend job modifications rather than anticipating the need for transitional work assignments.

Recommendation: Encourage or require employers to use transitional work programs; adopt clearly written policies and procedures that instruct and direct people in carrying out their responsibilities; hold supervisors accountable for the cost of benefits if temporary transitional work is not available to their injured/ill employees; consult with unions to design on-the-job recovery programs; require worker participation with ombudsman services available to guard against abuse; make ongoing expert resources available to employers to help them implement and manage these programs.

Current Initiatives/Best Practices: Successful transitional work programs are now in place in many well-managed organizations. As a result, these organizations experienced significant reductions in costs and absenteeism. The Ohio Bureau of Workers’ Compensation’s statewide Transitional Work Program (TWP) makes employers eligible for a state-funded grant

of up to \$5,200 to develop a TWP. California's recent workers' compensation reform legislation includes a program to reimburse small employers up to \$2,500 for purchasing adaptive equipment or otherwise modifying jobs for injured workers. An employer consortium, sponsored by the occupational medicine program at a clinic in Illinois, provides guidance and support to local employers in setting up and running their transitional work programs. 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 in Order to Reduce Minor Abuses and Cynicism

The disability benefit system is often used inappropriately to solve other problems – for example, taking sick leave to stay home and care for a child. Rules also are stretched to receive benefits without medical justification. If these minor abuses continue unchecked, more people assume everyone engages in such behavior. Eventually, anyone filing 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. Additionally, if transitional work programs are allowed to become permanent havens for non-productive workers, both employees and supervisors lose enthusiasm for them. If used to demean, harass, or ostracize workers, light-duty programs may become counterproductive.

Recommendation: Encourage programs that allow employees take time off without requiring a medical excuse; learn more about the negative effect of ignoring inappropriate use of disability benefit programs; discourage petty corruption by consistent, rigorous program administration; develop and use methods to reduce management and worker cynicism for disability benefit programs; train all parties to face situations without becoming adversaries; and be fair and kind to workers in the SAW/RTW process.

11. Devise Better Strategies to Deal with Bad-Faith Behavior

Employees and their families, supervisors, employer management, treating clinician(s), insurance carriers, benefits administrators, case managers, union representatives, and lawyers are involved in the disability benefits system. Some individuals in each group manipulate the SAW/RTW process to the point of serious abuse or clearly fraudulent activity. For example, an employer pressures a worker not to report a work-related injury. Employers and insurers expend considerable effort identifying and dealing with employees who take advantage of the system and to a lesser extent with physicians who 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 behaves inappropriately or illegally.

Often, a lawyer is the only recourse available to the injured worker. Most workers seeking counsel do so only after a problem arises. People who feel they have been ill-served and retain lawyers get involved in an adversarial system that hardens and polarizes positions, prolongs needless disability, and increases the likelihood of poor functional outcomes. One multi-state insurer's analysis shows that the median cost of workers' compensation claims of those with legal representation is about \$30,000 more than those without representation. The median cost of represented claims ranges between 10 and 20 times higher than the median cost of unrepresented ones.

Recommendation: Devote more effort to identifying and dealing with employers or insurers that use SAW/RTW efforts unfairly and show no respect for the legitimate needs of employees with a medical condition; make a complaint investigation and resolution service – an ombudsman, for example – available to employees who feel they received poor service or unfair treatment.

IV. INVEST IN SYSTEM AND INFRASTRUCTURE IMPROVEMENTS

12. Educate Physicians on “Why” and “How” to Play a Role in Preventing Disability

Few physicians, except those in occupational medicine and physiatry, ever receive training in disability prevention and management. Although function is now acknowledged as having a greater impact on quality of life than serious illness, most medical schools have not integrated evaluation of function into their curricula. Yet the average physician 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. As a result, he/she may allow workers to return to work who should not and disable those who could be working.

Recommendation: Educate all treating physicians in basic disability prevention/management and their role in the SAW/RTW process; provide advanced training using the most effective methods; make appropriate privileges and reimbursements available to trained physicians; focus attention on treatment guidelines where adequate supporting medical evidence exists; make the knowledge and skills to be taught consistent with current recommendations that medicine shift to a proactive health-oriented paradigm from a reactive, disease-oriented paradigm.

Current Initiatives/Best Practices: ACOEM and the American Academy of Orthopedic Surgeons have active educational efforts underway, with courses on disability-related topics at all annual conferences. Several employers in West Virginia and Idaho award quality points towards bonuses to those local physicians who attend a training session or take a short, web-based course in disability prevention and return-to-work communications. Two workers' compensation health care provider networks in California and Florida strongly encourage their physicians to take a course in disability prevention. Other networks are developing similar programs. The State Compensation Insurance Fund of California recently made disability management training a requirement for key clinicians in its medical provider network.

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

Strong evidence suggests that activity hastens optimal recovery while inactivity delays it. Moreover, simple aerobic physical activity has been shown to be an effective treatment for chronic pain, fibromyalgia, and chronic fatigue syndrome. Other evidence indicates that remaining at or promptly returning to some form of productive work improves clinical outcomes as compared to passive medical rehabilitation programs. The ACOEM *Practice Guidelines* recommend exercise, active self-care, and the earliest possible safe return to work. Despite this evidence, inactivity, work avoidance, and passive medical rehabilitation programs are often prescribed as treatment.

Recommendation: Undertake large-scale educational efforts so that activity recommendations become a routine part of medical treatment plans and treating clinicians prescribe inactivity only when medically required; specify that medical care must be consistent with current medical best practices; or preferably, adopt an evidence-based guideline as the standard of care.

Current Initiatives/Best Practices: California recently adopted ACOEM's *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." Colorado also 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/Standardize Information Exchange Methods between Employers/Payers and Medical Offices

Although physicians play an important role in the SAW/RTW process, they are typically given too little information to act effectively. Employees often are the physicians' only source of information because employers usually do not send any information to the physician about an employee's functional job requirements, their SAW/RTW programs, their commitment (or lack of it) to employee well-being, how to quickly answer questions or address problems.

Claim administrators often request information from the physician to help in managing their claim. They tend to use a generic approach that does not match the information requested with the 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. Discussion of patient functionality, which is not subject to confidentiality restrictions, lacks sufficient focus. Employers and claims administrators often find it easier and more efficient to send volumes of material to the physician instead of reducing it to the essential questions for the physician's convenience.

Many physicians seem unaware of employers' and benefit administrators' needs for information. When physicians receive poorly conceived requests for guidance or opinions, they have little tolerance or time to review irrelevant or redundant information to find the few useful pieces of data. Many physicians simply don't know how their delays or inadequate responses impact optimal functional outcomes for their patients. Both sides are exasperated by the enormous variability in the other's paper forms.

Recommendation: Encourage employers, insurers, and benefits administrators to use communication methods that respect physicians' time; spend time digesting, excerpting and highlighting key information so physicians can quickly spot the most important issues and meet the need for prompt, pertinent information; encourage all parties to learn to discuss the issues – verbally and in writing – in functional terms and mutually seek ways to eliminate obstacles.

Current Initiatives/Best Practices: Training can increase awareness among employer and insurer staff members about the practical realities of the physician's office and teach them how to make more-successful information requests that match these realities. Successful case managers often fax a single page to the physician's office the day before a patient's appointment. It should contain one or more questions or options, accompanied by checkboxes the physician 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/Standardize Methods and Tools that Provide Data for SAW-RTW Decision-Making

Everyone involved in a worker’s SAW/RTW process needs data about work capacity and job demands in order to make informed decisions. Considering their impact on thousands of work disability episodes per year, existing methods and tools for obtaining and analyzing data are nonstandard and often crude.

In the time-pressured setting of patient care, treating physicians typically make educated guesses to determine work capacity, medical restrictions, and functional limitations. Similarly, employees and employers typically make educated guesses to describe the functional demands of workplace tasks, a method that seems to work well most of the time. But whenever ability to work is uncertain or disputed, everyone – especially the courts – develops an appetite for “hard facts” and data. The private sector developed most of the proprietary methods and technologies currently used to determine work capacity.

Although almost all commercial methods/machines claim to have been scientifically tested, very little high-quality research has been published in rigorously peer-reviewed scientific journals. One major study showed that functional capacity evaluations (FCEs) were worse than no testing to facilitate appropriate job placement. In that study, a group of patients underwent functional capacity evaluations. Those whose physicians used data from the FCEs as the basis for their return-to-work advice did worse than those whose physicians ignored the FCE results and simply reassured and returned the workers to their usual jobs. Another major study showed that patients who had functional capacity evaluations (FCEs) to facilitate appropriate job placement fared worse than those whose physicians ignored the FCE results and simply returned the workers to their usual jobs.

Table 5 provides examples of the methods physicians commonly use to obtain the data needed for SAW/RTW decision-making. For each question or issue to be resolved, the table shows the low-cost or simple method typically used in an everyday medical office visit compared to a high-cost or complex method typically used in a complex or litigated situation. The table indicates the wide range in technical sophistication, time required, and cost. However, one important reference has not yet been developed. Physicians 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.

Table 5 – Methods of Obtaining Data for the SAW/RTW Decision-making Process

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?	Physician asks the worker what he/she usually does at work.	Physician relies on data from a job analysis. Physician 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?	Physician 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 (musculoskeletal work capacity) or neuropsychological testing (cognitive ability). Tests of other capacities are available but much more rarely used. Physician 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?	Physician 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 (authors 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/comprehensive review of evidence-based medical literature exists yet.

<p>Can this worker with this functional capacity and these medical restrictions do this particular job?</p>	<p>Make an informed guess. The physician uses whatever information is available to decide whether the worker's current capabilities match with the job demands.</p> <p style="text-align: center;"><i>OR</i></p> <p>The employer or insurer looks for a match. They compare the employee's abilities as portrayed in a physician's note with the demands of available jobs.</p>	<p>Physician 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.</p>
<p>Ways of modifying jobs/ making accommodations.</p>	<p>The physician 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.</p>	<p>Physician 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.</p>

Recommendation: Help physicians participate more effectively in the SAW/RTW process by standardizing key information and processes; persuade employers to prepare accurate, up-to-date functional job descriptions (focused on the job's maximum demands) in advance and keep them at the benefits administrator's facility; send them to physicians at the onset of disability; teach physicians practical methods to determine and document functional capacity; and require purveyors of functional capacity evaluation methods and machines to provide published evidence in high-quality, peer-reviewed trials comparing their adequacy to other methods.

Current Best Practices/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 to quickly obtain objective information on which to base their opinions. Occupational medicine specialists commonly tour the plants of their industrial clients to familiarize themselves with the physical work environment and the tasks of specific jobs. Many employers have 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 use job-specific functional testing at time of hire as well as at routine intervals after injury or illness to assure that workers are assigned tasks within their capabilities. Both vendors and purchasers of evaluation methodologies are beginning to understand the need to demonstrate 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 sufficient detail. Little solid methodological foundation or medical evidence exists to support or improve commonly used methods and tools. While millions of dollars have been spent studying the adequacy of health care services, very little funding or research has addressed outcomes for those covered by the workers' compensation system. As with workers' compensation, the failure to address these issues may point to a need for a federal agenda.

Recommendation: Complete and distribute a description of the SAW/RTW process with recommendations on how best to achieve desired results in disability outcomes; establish and fund industry-specific, broad-based research programs, perhaps in the form of independent institutes or as enhanced university programs; collect, analyze, and publish existing research; formulate research to better understand current practices and outcomes, determine best practices and test alternative solutions to problems; develop a way to effectively communicate the findings of completed research to all decision makers; and solicit needs for future research.

A sampling of research topics of interest might include:

- Develop screening tools to accurately predict relative risk of long-term functional disability and provide a basis for therapeutic interventions.
- Document the long-term history of prolonged absence or withdrawal from work.
- Design controlled trials of various claims and clinical interventions for improving medical and functional outcomes.

- Assess and catalog the functional implications and occupational considerations related to the 300+ medical conditions that cause most disability.
- Compare ways to assess work ability capacity.
- Devise ways to standardize and increase the availability and usability of functional job descriptions.
- Study physician behavior in dealing with role conflict.
- Develop controlled trials to compare different methods for training physicians in disability prevention and assessing the impact of that training on clinical, functional, and financial outcomes.
- Discover ways to increase the recognition and effective treatment of psychiatric co-morbidities.
- Develop effective ways to streamline communications between participants in SAW/RTW.
- Compare different methods to reward physicians for active participation in the SAW/RTW process.

CONCLUSION

Although most injured or ill people can cope with their problem and make either temporary or permanent life and work adjustments, a large minority cannot. This minority does not recover successfully, adopts a disabled self-concept, and experiences either a needlessly prolonged absence or a permanent withdrawal from work. In problematic situations, the SAW/RTW process is usually inadequate and ill-suited to detect and effectively address the most important issues related to the outcome. It also accounts for the majority of needless expenditures for disability benefits. Because this minority 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. Therefore, the focus of the SAW/RTW process should shift away from “managing” or “evaluating” disability to preventing it. The fundamental reason for most lost workdays/lost jobs is not medical necessity, but the non-medical decision-making and poor functioning of the SAW/RTW process.

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

Recommendations to improve 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; and
- funding.

Common sense evidence abounds that keeping people productively employed is good for them and for society. Avoiding the unfortunate outcome of iatrogenic or system-induced disability is worthwhile. Improving the appropriateness and usefulness of services available to people coping with illness and injury is also of value. It also is sensible, if not urgent, to curtail needlessly using resources and losing personal and industrial productivity.

Improving the SAW/RTW process will require sustained attention and effort as well as a willingness to explore new approaches. This report will, perhaps, stimulate thinking and begin a regular dialogue with other stakeholders to explore this topic in progressively greater depth.

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