

TECHNICAL APPENDIX: CREATING & LAUNCHING A COMMUNITY-FOCUSED HEALTH & WORK SERVICE

This Technical Appendix expands on issues addressed more briefly in our main paper. It begins with key terminology: suggestions for how to describe the various actors who will be involved in the HWS in some way. Next are additional details on the three very relevant interim events that have occurred since our original HWS proposal was made.

Following that are expanded discussions of specific aspects of the three mission critical issues discussed in the main paper. This material is primarily aimed at those overseeing or doing the actual design, planning, preparations for, and implementation of the HWS service. Those are: (1) How to manage an undertaking that will be unfamiliar to most everyone; (2) Carefully recruiting, selecting and training HWS staff, especially the Recovery Coordinators; and (3) Designing incentives for physicians that increase desired behaviors as well as incentives for HWS staff that enhance the sustainability of the entity.

The rest of this Technical Appendix is devoted to detailed discussion of nine smaller but still critical issues that if handled well will help the HWS succeed – and if done wrong can help tank it. Again, our intention is to provide useful insights and suggestions to those overseeing or doing the actual design, planning, preparations for, and implementation of the HWS service. The nine issues are:

- (1) Inserting the HWS as a new “citizen” in an existing social fabric of organizations and programs.
- (2) Realistically planning for the time it will take to build community awareness, demand, and the local area’s capacity to support the HWS.
- (3) Catalyzing small but important changes in four different parts of the social fabric simultaneously.
- (4) Finding the right “home” for the HWS’s Recovery Coordinators and their medical back-up.
- (5) Referral criteria and processes;
- (6) Eligibility screening: who, what, where, when and how;
- (7) What to do with workers who do not meet referral or eligibility criteria;
- (8) What to do when simple secondary prevention services are not enough.

Key terminology

Since the process of creating and then implementing an HWS involves different kinds of challenges at many levels, we suggest establishing specific terminology in order to avoid confusion and miscommunication. It is critical to clarify the opportunities and responsibilities of those working at each of those levels– and make it clear how they each contribute to the overall goal.

1. HWS Service Delivery (SD): The front-line where individual situations are being managed. The HWS SD Team includes: Recovery Coordinators, HWS medical director and clinical consultants, as well as fee-for-service contractors who occasionally supply more technical or intensive services.
2. HWS Operations (Ops): The organizational functions that house and/or support effective HWS SD. The mission-critical functions of HWS Ops are at the aggregate level rather than the level of individual situations: (1) training, equipping, overseeing and evaluating the performance of HWS SD; (2) developing and maintaining external relationships, marketing, communications, and public relations with all parties whose buy-in and collaboration is essential for success (community physicians, employers, claims/benefit organizations, labor organizations, community groups, etc.); (3) contracting for and administering SD-related financial transactions. HWS Ops also handles the organization’s generic administrative, financial, and technological operations.

3. HWS Headquarters or HQ: The organization / entity responsible for delivering the entire program, which includes integrating all of its parts which may involve operations and activities in multiple distinct organizations.
4. HWS Sponsor: The governmental entity sponsoring, funding, and accountable to the taxpayers for the success of the HWS and the wise use of public money.
5. Stakeholder: Individuals, organizations or groups in the community that have a general interest in the HWS or that are involved in supporting or collaborating with its staff in some way.
6. Participant: Any of the individuals interacting and making decisions about a situation involving a particular person's work disruption due to a health condition, most commonly the worker him or herself, the treating physician or medical office staff, one or more representatives of the employer, and possibly a benefits representative.
7. Worker: A person who is not going to work now but is still gainfully employed or had been earning his/her own living until work disruption began recently – within the previous 12 weeks.
8. Treating Physician: Any healthcare professional who is caring for the patient and who is authorized to make diagnoses, prescribe treatments, and sign work disability forms.
9. Employer: Any human being who is part of the management structure of an organization for which an affected individual works – for example, a first line supervisor, a safety manager, a human resources director, or a president.

Interim update: Relevant events since our original HWS proposal was made

Three main events that are relevant to the HWS have occurred since 2015 when we made our original proposal.

1. Washington COHE updates. Additional analyses have been done that continue to affirm and quantify the positive outcomes produced by the COHE program.
 - a. A recently published report with additional analysis of Washington's long-term follow-up data has confirmed the beneficial impact of the COHE program in terms of reduced long-term worklessness, entry onto SSDI, and award of disability pensions. Here is a summary of the results:
 - Fewer than 2.0% of all workers ended up with long-term disability as defined by three different measures. Compared to baseline rates, the disability rate among workers in the COHE group decreased from 1.7% to 1.5%, but it increased for the usual care group (from 2.0% to 2.5%).
 - Seventy-eight COHE workers (0.6%) received a lifetime pension or were awarded SSDI, compared to 135 workers (1.0%) in the usual care control group.
 - Patients treated by COHE providers had a 30% reduction in the risk of experiencing any of the three measures of long-term work disability (odds ratio = .71, confidence interval = .51-.96; P = .02).
 - Injured workers treated by COHE physicians had approximately 26,350 fewer disability days per 1,000 workers over the 8-year follow-up period compared to injured workers treated by non-COHE physicians in the catchment area.

- Caveats: The demography of the workers and the employers in the COHE and usual care groups differed significantly in several respects. There were large differences between the two groups in the kinds of health care professionals and medical specialties involved and the volume of work-related injuries those professionals treated.
 - Conclusions: These findings suggest that well-designed healthcare delivery innovations that provide effective secondary prevention services early in the treatment cycle to injured workers with common musculoskeletal injuries can favorably alter the long-term disability trajectory, thereby reducing the disability burden on a population basis. Thus, secondary prevention interventions may also have a beneficial effect on the nation’s labor force participation rate.
- b. Preliminary unpublished data on the economic impact of COHE is now available. All dollars below only reflect actual costs to the workers’ compensation payer, and do not reflect costs borne by other parties and programs such as the worker, his/her employer, other state agencies and the Federal government.

Among all 105,000 injured workers in the original COHE cohort followed over an 8-year follow-up period, the average disability cost per claim for COHE versus non-COHE cases was: \$3,179 versus \$4,858 (p < .001). For medical costs the same respective costs were: \$4,246 versus \$5,243 (p < .001). The difference in average costs increases somewhat if you restrict the sample to injured workers with back sprain or other sprains (shoulder, knee and neck). For all workers the difference in average disability and medical costs are: \$1,679 and \$997, respectively. If you restrict it to workers with back and other sprains the difference in costs increase to \$1,714 and \$1,163 per claim, respectively.

	Was Worker’s Initial Treating Physician a COHE Member?		Difference	P value
	YES	NO		
ALL WORKERS				
Work disability	\$3,179	\$4,848	\$1,679	<.001
Medical care	\$4,246	\$5,243	\$997	<.001

	Was Worker’s Initial Treating Physician a COHE Member?		Difference	P value
	YES	NO		
ONLY WORKERS WITH BACK & OTHER SPRAINS				
Work Disability			\$1,714	
Medical Care			\$1,163	

2. UK Fit for Work Program Update: The United Kingdom’s Fit for Work Service for workers with health problems due to any cause (the other model upon which we based our design for the HWS), has been mothballed after a disappointing roll-out in a limited geographic area due to implementation difficulties and design flaws.

Although the launch of the national program was preceded by several years of excellent preparatory work (conceptual foundation-building, socializing the ideas, obtaining buy-in at all levels, and conducting seven regional pilots with widely differing designs), the final design did

not incorporate key features of the most successful pilots. Moreover, the program was outsourced to a vendor paid on a flat payment per case basis, which constrained its investment in training, the program's website, as well as its service delivery model.

- The service received an unexpectedly low number of referrals and, after those referrals were made, workers accepted the service at a lower than expected rate. The vendor had made only limited efforts to market the service and build relationships with its referral sources so there was low community awareness of the program and it lacked a positive reputation. In the first year, only treating physicians were allowed to make referrals; a year later employers were offered the option.
- Interventions consisted mostly of a single phone call between worker and the RTW coordinator and was limited to making a written RTW plan. Workers who were surveyed later reported it felt the plan was too generic and it did not help them with their actual challenges. The intervention rarely included any communication with the doctor or the employer. In fact, the FFW Service took over the writing of work restrictions (in the UK this is called the Fit Note). Two things explain this design weakness: (1) Low flat fee funding per case combined with (2) the vendor's failure to appreciate the vital importance of other parties' influence on the outcome: the treating physician's advice to the patient during on-going care and the employer's engagement in finding solutions to the worker's situation.
- The importance of the website for the FFW Service was underappreciated, and as a result of inadequate funding, was populated with generic messages that were inconsistent with the philosophy and approach of the actual FFW program.

3. The RETAIN Demonstration Projects: Our HWS proposal has been informally acknowledged as inspiring and providing a vision for RETAIN, a new five-year and \$100 million Federal demonstration project just now getting underway in eight states. The Office of Disability Employment Policy (ODEP) within the US Department of Labor (DOL) is managing the project for DOL on behalf of the Employment and Training Administration. They have entered into cooperative agreements with California, Connecticut, Kansas, Kentucky, Minnesota, Ohio, Vermont and Washington State. With RETAIN, state agencies are being challenged to take some first steps towards addressing the misalignment of accountabilities and financial incentives within our social structures and the marketplace. This encourages lack of engagement by three types of professionals who are key participants in episodes of health-related work disruption and whose behavior has a major impact on SAW/RTW outcomes:

- Treating physicians (and the healthcare sector as a whole);
- Workplace supervisors / employers (and the employment sector as a whole).
- Claims payers

RETAIN is an admirable effort to start increasing awareness among stakeholders at the community level of the problems faced by local workers with new non-transient episodes of health-related work absence and to start establishing accountability among those community stakeholders for minimizing life disruption, excessive functional impairment, and the very poor outcomes of job loss and permanent withdrawal from the workforce. At this point, there is no organization anywhere in American society that has this charge.

The design of RETAIN reflects a public health systems approach to the prevention of work disability. RETAIN will be testing whether:

- collaboration among governmental and private sector organizations can increase the fraction of all newly injured or ill working people – and their employers – who receive timely and expert support with the SAW/RTW process;
- timely provision of simple and comparatively low-cost communications, coordination services in a collaborative manner (in addition to usual medical care) will reduce the percentage of cases that end up with unexpectedly poor outcomes including job loss, workforce withdrawal, and later entry onto SSDI;
- systematic identification of situations in which workers or their employers need extra support and prompt delivery of more intensive or prolonged services can help them stay employed.

In addition to the many similarities between our HWS proposal and RETAIN, including the success of Washington State’s COHE model as the rationale for a multi-state demonstration project and making a general recommendation that the states’ designs emulate it in some fashion, there are three significant differences. Each of the differences creates additional complexity and increases the risk of unsuccessful implementation.

- RETAIN is a temporary program – a time-limited demonstration project – based on designs hastily put together by states during a very short procurement period, and has an extremely aggressive timeline during which programs must be deployed and results must be demonstrated;
- It requires active engagement from the outset – and participation in both project leadership and in program delivery – by an array of state agencies and healthcare delivery organizations, most of which have no particular interest or previous familiarity with the subject matter; and
- It extends the program period from 12 weeks to 6 months and envisions a wider range of interventions than the very limited, tightly-defined, straightforward and low-cost services offered by the COHE model.

We believe the third area of difference – RETAIN’s extension and enrichment of the COHE model – is an important improvement on our proposal, so this paper will address implementation issues for those attempting to implement a program with those features as well.

FOUNDATIONAL CONCEPTS

In this section we lay out some basic concepts that are essential for understanding the newness and potential power of the HWS as well as the challenges that establishing and implementing it will present: (1) HWS is a secondary prevention program; (2) HWS tackles an orphan issue in a blind spot; (3) Operationalizing the HWS will require patience and practical expertise in multiple domains due to its unfamiliarity and complexity.

1. HWS is a Secondary Prevention Program

The HWS will lightly touch many workers with work disruption due to MSK and CMD for the purpose of reducing the small number whose situations would take an unfortunate turn and result in unexpectedly poor long-term outcomes. By definition, this is a secondary prevention approach. The secondary prevention approach can be summarized as “take action to keep little things little and stop them from transforming into more serious future problems.” (Primary prevention is a much better-known approach whose aim is to is to

stop bad things from happening at all, from even getting started. Immunizations, public drinking water standards, pre-natal care, and safety programs are all examples of primary prevention.)

Secondary prevention often requires touching a lot of people to protect the few who would otherwise be destined for serious problems later. Comparatively low intensity and low-cost interventions help those – a small group who cannot be identified up front but are destined for heart attacks, strokes, and kidney failure – to avoid those catastrophic outcomes. Secondary prevention programs are put in place when they are both safe and cost-effective. In other words, the effort, hazards, and costs of delivering the secondary prevention intervention must be less than the consequences and costs of letting things go along their predictable course.

The concept of secondary prevention was originally developed because some seemingly minor health problems are a signal that a biological process has begun which in some cases will gradually evolve into a very big health problem later. The aim is to detect those small signals early and take action to short-circuit the unfortunate transformation into big problems. Classic secondary prevention techniques in healthcare are to make sure that people with the seemingly minor problems of cigarette smoking, high blood pressure and high blood lipids (a) stop smoking; (b) take medications to lower their levels; and (b) make lifestyle changes: eat better foods, get more exercise. Most people who smoke, have high blood pressure, and high blood lipids do just fine. But a significant fraction of them end up with devastating health problems, such as chronic lung disease, several kinds of cancer, heart attacks and strokes.

Secondary prevention strategies and programs have now been extended into social services and education. An example of a secondary prevention technique in social services is to have nurses make home visits to low income new mothers to teach them about child development and how to care for their child. The purpose is to prevent child maltreatment and increase the likelihood of good health, normal development, and school success for the child. An education example is to screen children for learning disabilities in the pre-school or early elementary years and then teach them coping skills so they can avoid school failure and its lifetime consequences. All three of these initiatives have proven their value and produced better results than the status quo.

See the table below which lays out the continuum of prevention – from education/promotion to the three active prevention techniques: primary, secondary, and tertiary. The table gives examples in the health, social, environmental and function/participation arenas. The HWS as well as the current RETAIN demonstration projects lie squarely in the secondary prevention column. Many studies have consistently confirmed the effectiveness of providing early and pro-active support during the stay-at-work and return-to-work process (SAW/RTW) on long-term outcomes. (Note that traditional services to people with severe impairments, such as spinal cord rehab programs, independent living services and vocational rehabilitation, are best classified as tertiary prevention.)

2. Ensure an on-going high volume of referrals

To achieve a level of referrals, especially repeat referrals similar to the Leicestershire pilot in the UK (90% of primary care doctors referred at least one case, and 65% referred more than five), local HWS Operations will need to accomplish the three mission-critical tasks in community relationships below:

- Establish a strategic and effective medical provider relations operation analogous to the one that plays an essential part in the success of the COHE program. The COHE provider relations staff members are responsible for building and continually growing the physician membership in the program and cultivating good working relationships with them. The HWS provider relations staff members will need to do these things, and in fact their role will be even more critical than it is for the COHE because of the multi-payer environment. (All physicians in Washington see L&I as a major player.)

- Establish an active employer relations function. Besides being a potential source of referrals, employers also control a critical endpoint of the SAW/RTW process: they decide whether or not to provide work for an injured or ill worker. Employer relations is not a separate function in the COHE program because of its one-to-one linkage with L&I's customer base. In the HWS, this will become a core responsibility of the HWS Operations staff.
- Establish an active insurer relationships function. Unlike the Washington COHE which dealt with only one payer, the HWS will need to develop working relationships with multiple payers: health insurers, as well as workers' compensation and disability insurers and their third-party administrators. In the HWS, this will be another core responsibility of the HWS Operations staff.

EXAMPLES OF EXISTING PREVENTION STRATEGIES AND SUGGESTED ADDITION: PREVENTION OF WORK DISABILITY

Strategy	Education / Promotion	Primary Prevention	Secondary Prevention	Tertiary Prevention
Target group	Entire population	People with one or more risk factors	People with early signs (often no symptoms) of disease process	People with symptomatic or advanced disease
Location of Intervention	Mass communication Legislation / regulation	Individual interactions	Individual interactions	Individual interactions
Intended effect	An informed and educated population makes choices that reduce risks --and future problems	Detect risks that lead to future problem. Address them to reduce likelihood problem will occur.	Detect earliest stage of problem (while reversible / modifiable) Intervene to stop progression to full-blown problem	Avoid complications Minimize or compensate for damages
Health issues: Intervention examples	<ul style="list-style-type: none"> • Educate re: dangers of smoking; • Educate re: healthy diet • Encourage screening for cancer 	<ul style="list-style-type: none"> • Nicotine patches • Quit smoking programs • Nutrition classes • Diet counseling • Encourage screening tests 	<ul style="list-style-type: none"> • Screen for and treat high blood pressure and high blood lipids • Screen for and treat abnormal pap smears and mammograms • Diabetes education 	<ul style="list-style-type: none"> • Recurrence / relapse prevention • Cardiac rehabilitation • Kidney dialysis
Social issues: Intervention examples	<ul style="list-style-type: none"> • Educate / mandate professionals to identify women and children in troubled households with violence, sexual abuse, neglect, etc.) 	<ul style="list-style-type: none"> • Prenatal screening for risk factors • Parenting classes 	<ul style="list-style-type: none"> • Routine assessment during emergency medical, social service, and law enforcement encounters -- & referrals for services as needed. • Visiting nurse services for vulnerable new mother-baby pairs 	<ul style="list-style-type: none"> • Support groups and psycho-education to build coping skills for troubled families and trauma survivors. • Sheltered housing for battered women & children
Environmental issues: Intervention examples	<ul style="list-style-type: none"> • Promote / educate re: seat belts and car seats • Require vehicle pollution emission controls • Establish lead standards for drinking water and workplaces 	<ul style="list-style-type: none"> • Counseling re: use of seat belts and car seats • Annual vehicle inspections • Require monitoring of workplace lead levels • Require testing for exposed workers 	<ul style="list-style-type: none"> • Traffic tickets for failure to wear seat belts/ use car seats. • Require removal and treatment of workers for high blood lead levels 	<ul style="list-style-type: none"> • Auto accident insurance benefits for medical care and rehabilitation • OSHA enforcement actions • Workers' compensation insurance benefits
Work disability issues: Possible intervention examples	<ul style="list-style-type: none"> • Position job loss as a poor outcome of health care services • Promote benefits of work • Require tracking & reporting of function and work outcomes after medical care 	<ul style="list-style-type: none"> • Training for all treating clinicians and employers on loss of work as a poor health outcome, their role in the SAW/RTW process, employers' obligations and employee's rights under the ADAAA 	<ul style="list-style-type: none"> • Incentivize marketplace/ industry efforts to improve outcomes of SAW/RTW process • Ensure immediate access to local work disability prevention services, e.g. HWS / RETAIN or similar 	<ul style="list-style-type: none"> • Post-stroke rehabilitation • Spinal cord injury rehabilitation • Vocational rehabilitation

Sources: Primary/Secondary/Tertiary Prevention: Centers for Disease Control. A framework for assessing the effectiveness of disease and injury prevention. MMWR 1992;41(RR-3). <https://www.cdc.gov/mmwr/preview/mmwrhtml/00016403.htm> Child abuse: <http://www.pcand.org/stats-and-facts/levels-of-prevention.html> Florida Prevention of Child Abuse, Abandonment and Neglect Plan: July 2010 – June 2015, Part 4- Areas of Focus for Primary and Secondary Prevention, pp 33-38. <https://www.flgov.com/wp-content/uploads/childadvocacy/6.%20CAPP%20Analysis.pdf>

EXPANDED REMARKS CONCERNING MISSION CRITICAL ISSUES

1. How to manage an undertaking that will be unfamiliar to most everyone

Almost everyone who gets involved with the HWS in any fashion will have been working in another model, with a different population, on different issues, and at a different time period in the evolution of work disability. It will take quite a while for them to really grasp the comprehensive and integrated nature of the HWS concept, which is unfamiliar in many ways. Specifically, the HWS will be a new kind of organization with an unfamiliar mission. Its design, operations, and the way it delivers its services will be based on a set of evidence-informed theoretical models and paradigms with which few are familiar today.

The HWS will set out to connect among heretofore unrelated potential parties for purposes of collaboration who have not even been acquainted much less envisioned the possibility of collaboration. HWS will need to build good working relationships with them – across social sectors and organizational silos – and develop and obtain buy-in to structured protocols that make it crystal clear who will be responsible for what and when. These may even need to evolve into formal agreements that will institutionalize and systematize the coordinated delivery of services in an integrated fashion to a wider range of individuals within their jurisdiction.

Although the HWS talks about work disability and one of its goals is to reduce entry onto disability programs, its services are primarily aimed at people who consider themselves “sick” or “injured” – and do not consider themselves as a “person with a disability” (PWD). Existing programs and services aimed at PWD will lack appeal and will only rarely address the current predicaments with which the HWS’s target population is asked to cope.

The HWS will need to move faster to start services after referrals – and will end them sooner – than many other disability-related organizations, because both the pace and duration of services are both set by an external timeline: the interval that has elapsed since an individual’s health problem and work absence began.

The HWS’s version of coordination is pro-active: to orchestrate when needed the unfolding of certain critical processes or events that occur very early during the course of healthcare episodes and whose importance have either not been generally recognized or are often managed ineffectively:

1. The HWS will actively and simultaneously attempt to assure that restoration of function is being adequately addressed in the healthcare delivery process while optimizing the SAW/RTW process – because both processes are running concurrently and evolving rapidly during the early period.
2. The expectations that all of the key participants in a particular workers’ situation have for the medical condition’s actual impact on the workers’ job and future employment are being actively shaped by the others’ behavior and decisions during this interval.
3. The intimate dynamics of this early period from each stakeholder’s perspective are unfamiliar to most healthcare, insurance, human resources, social services, and traditional disability services professionals

2. Carefully recruiting, selecting, and training HWS staff, especially Recovery Coordinators

Medical director / clinical consultants: For the role of medical director, the best place to start is occupational medicine. These physicians tend to be most familiar with the dynamics of the early SAW/RTW process and workplace settings, and many have worked at both the retail level in healthcare as well as other levels. Among medical specialties, occ med has among the highest percentage of physicians with additional board certifications and graduate degrees in other fields, typically public health, healthcare management, and business. However, highly credentialed occupational medicine physicians are scarce. Specialists in physical medicine and rehabilitation (also known as physiatrists) share with occupational medicine a view that restoring function and work are positive health outcomes, but are also scarce. Physicians in other specialties who have had experience with facilitating the SAW/RTW process in either workers' compensation or disability benefits programs are another possibility, or practicing physicians with reputation among employers and insurers for actively supporting efforts to get their patients back to work are other good candidates. The best candidates will also have a masters' in public health or healthcare administration, or have had leadership roles in larger medical organizations, or who have had executive responsibilities for large organizations.

Staffing the front-line service delivery teams is a different matter. Professionals who will do good work for the HWS and interact well with workers, doctors and employers on the front line already exist in the community and must be found – and then trained and equipped to succeed in the HWS. However, only a few of them are likely to have familiarity with the early SAW/RTW process and the specific challenges of the tasks they will be performing.

A cautionary tale is offered by the experience of the UK, where the Fit for Work Service was contracted out to a vendor that, on paper, appeared to have the required understanding of what was required to implement the service. Sadly, the contractor was given inadequate support and an inadequate budget to provide the right level of training for its staff (who were called case managers), and to provide the required support to workplaces and healthcare practitioners. The outcome was that the performance of the service being delivered did not meet expectations.

Therefore, we strongly advise that HWS Ops be prepared to invest the time and money necessary at the outset into:

- Selecting staff for the service delivery teams who possess/exhibit the right temperament, aptitudes, skills and expertise to establish positive, empathetic, trusting and results-oriented relationships with members of the three stakeholder groups with whom they will be interacting: workers, physicians, and employers;
- Ensure all intervenors are appropriately trained:
 - on the specific principles that underpin the project as a whole;
 - on the intended outcomes for which they will be held accountable;
 - to have a sense of urgency because jobs are lost at the speed of life, not bureaucracy.
 - to manage multi-dimensional and multi-stakeholder situations, not individual workers;
 - how to analyze situations and select interventions to address the specific obstacles to recovery and work participation in a given worker's situation;
 - how to communicate persuasively and effectively with workers, medical office staff, physicians, claims managers, and employers;
 - how to remain a neutral and trusted advocate, standing for an optimal outcome;

- Ensure all intervenors are equipped with the practical tools and methods they need to deliver their own interventions, and in cases when situations when thorny obstacles require more than that, timely to technical professionals and tangible resources.
 - They must be able to document their work efficiently because cumbersome data collection requirements will cripple the efficiency and effectiveness of the program.
 - They must be instructed on the specific protocols, procedures and systems they are expected to use in carrying out their responsibilities and told how their performance will be evaluated. (Note that this is the last bullet on our list, though of course it is a practical necessity. In too many organizations, this is the only training new staff actually gets.)

Training sufficient to demonstrate competency in these skills will come at a cost, but there is no doubt that this is a necessary investment to get the expected program benefit. Such training is not simply a matter of process and procedure. Crucially, it is a matter of transferring a new understanding and a complex skill set which needs to be developed and delivered by people who have a deep understanding of the subtleties of the work disability prevention model. The training can actually be done relatively easily (much relevant training material and tools already exist) but it needs to be recognized as an essential element from the outset to underpin the project design.

The Recovery Coordinators: Many of the most successful HSCs in Washington state were already-seasoned vocational rehabilitation professionals with years of experience observing injured workers go through “the system.” The case managers who delivered the most successful early pilot program in the UK, in the county of Leicestershire, England, were drawn from the “information and guidance” sector, and many had experience in working with people with long-term disabilities.

There are now many professionals who have been employed as “RTW coordinators” or “disability managers” for employers and insurers in the private sector. Some have basic credentials in the field, such as CPDM, CDMS, CDMP, etc. Also among the possibilities are occupational therapists (OTs) who have training and experience in dealing with combined physical, mental, and social aspects of life-disrupting health problems and rehabilitation nurses or occupational health nurses. Individuals in all of these professions might but will not always be an excellent fit. Note particularly that many healthcare professionals are not well suited for this work. They can neglect the non-medical factors actually driving a situation in the wrong direction because they are distracted by medical issues with which they feel more comfortable.

Responsibilities of Recovery Coordinators

We recommend that the Recovery Coordinators be expected to use a stepped approach such as described below in carrying out their primary responsibility of resolving obstacles to SAW/RTW in at-risk situations:

1. Perform initial triage to identify those individuals with the kinds of health conditions / or in the kind of situations that might put them at risk for an unusually poor outcome.
2. Perform a more thorough risk screening to identify those who are definitely in need of the type of active support by the HWS (and/or in need of relevant services offered elsewhere in the community).
3. Through an interview process, gather enough information to put together a multi-dimensional analysis of each worker’s situation that identifies any specific, significant and potentially remediable risks or obstacles to a good resolution in any area of life, then, if needed, devise a multi-dimensional intervention plan that addresses them.

4. In a single session, employ evidence-based techniques to enhance, as appropriate, the worker's knowledge, perspective, perceptions about their situation – or their skill in dealing with a particular issue – which may shift their attitudes, beliefs, and expectations which will then positively influence their intentions, choices, decisions and actions.
5. As needed and also in a single session, deliver additional educational, informational, persuasive communication and problem-solving interventions (see 4 above) to other key participants: the physician and/or employer.
6. If this does not resolve the situation, formulate and carry out an on-going individualized and practical plan to resolve the specific obstacles that have been identified along a defined timeline.
7. When external activities are needed to clarify some aspect of the situation or when resolution requires more expertise or time than the Recovery Coordinator can offer, arrange delivery of technical solutions, tangible goods, or involvement of other professionals.
8. Monitor every individual's situation until it is resolved or eligibility for services ends.

Here is even more detailed information about how the Recovery Coordinators might perform each of those essential tasks:

1. Perform initial triage telephonically using a few screening questions to identify those with the kinds of conditions / situations that are possibly or definitely likely to need active support.
2. For those initially triaged as possibly needing active support, proceed immediately to administer risk screening assessments using a standardized format that creates structured data. Use this to identify those who are definitely in need of the type of active support by the HWS (and/or in need of relevant services offered elsewhere in the community).
3. For the subset identified as in need of active support:
 - a. Review results of risk screening and any other available written documentation to identify areas needing additional exploration.
 - b. Conduct telephonic or in person interviews to collect more detailed information in order identify the specific issues needing intervention.
 - c. Conduct a multi-dimensional analysis of each worker's situation to identify any specific, significant and potentially remediable risks or obstacles to a good resolution,
 - d. Devise a multi-dimensional intervention plan, including a tentative timeline for resolution, when needed.
4. In a single session, either telephonic or face to face, employ evidence-based techniques to enhance, as appropriate, the worker's knowledge, perspective, and perceptions which may shift their attitudes, beliefs, and expectations which will then positively influence their intentions, choices, decisions and actions.
5. If needed, and also in a single session, deliver additional educational, informational, persuasive communication and problem-solving interventions (see 4 above) as appropriate to other key participants: the physician and/or employer.
6. When a single session with the worker isn't sufficient, formulate and seek agreement as needed from the worker and other participants an individualized and practical plan. The plan should be designed to resolve the specific obstacles that have been identified along a

defined timeline for the purpose of optimizing functional recovery and facilitating the SAW/RTW process, including negotiating temporary work adjustments and/or long-term reasonable accommodations.

7. Identify the need for technical solutions, tangible goods, or professional services that require more expertise or time than the Recovery Coordinator can offer, and then arrange delivery.
8. Passively monitor progress in SAW/RTW of all workers appropriately referred to the HWS,
 - a. Follow until resolution or until eligibility for service expires.
 - b. Include those originally triaged as needing no or minimal intervention; if SAW/RTW has not occurred as originally predicted, rescreen to identify obstacles and commence more active intervention as appropriate.

In order to understand the many tasks a good HSC performs in more detail, see pages 4 and 5 of [Appendix III](#) of our proposal for a Community-Focused Health & Work Service. This Appendix describes the COHE, including the role of the different COHE staff members.

3. Design incentives for desired behaviors by community physicians, employers, and HWS staff – and assure the sustainability of HWS as an entity

Incentives may be monetary or non-monetary, direct or indirect, explicit or unstated. This section considers only financial incentives. Research on how human beings make decisions about rewards make it clear that people are much more sensitive to the threat of losing something valuable than gaining something. Consider establishing an incentive pool at the start of the year and explicitly drawing down against it every time a best practice is NOT performed. That might be more powerful than the conventional approach of dispensing a reward every time the desired behavior is performed.

It is also important not to over-reward a desired behavior with money. Instead of serving as a tangible reward for good behavior in which the recipient can take pride, at some point a money rewards becomes the point of the effort. Small but noticeable rewards delivered with recognition and appreciation have much more impact difference than a check in an envelope without an explicit connection to behavior that triggered payment.

Across the country, misalignment of economic incentives for all three key stakeholders at the SAW/RTW interface is having a deleterious impact on each one's level of engagement and on the outcomes that result. Also, each one of those three key stakeholders is usually operating in a larger organizational context. Thus, there are two levels at which dollars are important: first is incentives that reward specific desired behaviors by individuals because they produce better outcomes, and second is assuring that payments for services are sufficient to sustain the organization from a basic financial point of view – so they remain willing to be a partner. Asking front line personnel in an organization to perform best practices in the specialty area of SAW/RTW despite fundamentally inadequate payment for bread and butter services is not likely to create a sustainable relationship.

This includes the HWS itself, as an entity. Especially if the service is contracted out to a vendor, operating an HWS must be an attractive and sustainable proposition in order to attract the high caliber of professionals needed to ensure its success. Within the HWS centers, incentives need to be available at the organization level and within the Service Delivery Team. A local HWS that delivers the intended results should get a reward of some sort.

In order to incentivize the HWS staff appropriately, we recommend that their revenue include flat fees paid each time the service delivery team conducts a few desirable and tightly defined best practices (behaviors). Examples of these activities are those that have been shown to improve outcomes in both chronic care and SAW/RTW process models: case monitoring, care coordination, obtaining and sharing information, patient education, multi-party facilitation of communication, planning, and problem-solving, and so on. Similar to Washington's COHE program, a top limit of billable hours should probably be established for routine services to encourage value for money and discourage over-billing.

Washington L&I's reimbursement scheme for the COHEs strongly encourages desired behaviors by physicians and also by COHE staff.

With regard to COHE staff, L&I, it defines a small number of specific activities for which the healthcare service coordinators (akin to the HWS Recovery Coordinators) are paid one at a time, which are: (a) initial three-way contact with physicians, injured workers, and employers; (b) each follow-up telephone and email communication with those same three parties. (These are best practice although not referred to as such.) L&I sets a maximum number of nine billable hours per case. Thus, the HWS staff is motivated and rewarded for engaging with the three stakeholders frequently, but not rewarded for over-working individual cases. For more details on how the COHEs were incentivized in their start-up years, see pages 5-8 in [Appendix III](#) of our original proposal.

In contrast, the vendor providing the UK's now-mothballed FFW Service was paid a flat fee per case, which paradoxically created an economic incentive to make minimum effort and as noted in the Update section above, resulted in very few contacts with employers or treating physicians.

Physician incentives. Washington L&I's promise to pay flat fees for tasks that are clearly defined, simple, time-defined and tangible has increased the frequency with which they are performed. The incentives clearly worked.

In order to incentivize community-based treating clinicians appropriately, we recommend that the HWS adopt a similar strategy for physician incentives that is similar to the COHE, but modify the list of behaviors declared "best practices" to include those that will facilitate delivery of the HWS services.

Thus, the physician behaviors to be rewarded fall into two groups:

- those that increase the likelihood that the HWS's services will be available to a worker who can benefit from them and
- those that increase the likelihood of a successful SAW/RTW process in an individual case.

We strongly recommend avoiding any kind of "pay-for-performance schemes" like those now popular in general healthcare. These provide an incentive payment at the end of some designated period (quarter or year) for aggregate results or patterns of performance.

Washington's COHE program initially paid treating physicians a flat fee every time they performed one of the four "best practices" as defined by L&I. These specific activities notified L&I of a new claim, educated the patient, and enriched the information available to both the HSCs and L&I about the workers' current ability to function and work and anticipated schedule of recovery, which in turn enabled the COHE to communicate more useful information and problem-solve more effectively with workers and employers. The precisely-defined services either had to be documented in the medical record or on a specific form. The medical office billed L&I for them, using billing codes similar to those used to bill for all of the other medical services provided for that particular injury to that particular worker. Today, at the first clinical visit for a new injury, a COHE member physician who delivers and

bills for the three applicable best practices will increase revenue for that visit by more than \$100, an amount medical practices will notice and appreciate.

Thus, for example, the HWS might pay flat fees per occurrence of the following services:

- 1) Refer a patient to the HWS service. Complete in full and promptly submit an HWS-branded form “Physician Report of Work-Disabling Health Condition with Referral to HWS”. This is a one-time fee per case for each treating physician/facility. The fee should encourage early referral by decreasing as duration of work absence increases. The fee is not payable unless form is completed in full (either in writing or telephonically) and referral criteria are met unless the HWS agrees that a valid exception exists.
- 2) Address and resolve obstacles to communication due to HIPAA and privacy laws. Submit an HWS-supplied form signed by both the patient and treating physician that simultaneously authorizes release of relevant information to the HWS and other involved parties (see below). This is a one-time fee per treating physician / healthcare facility. The patient must specifically authorize:
 - Release of medical records and medical information to the HWS and claims payer (if any);
 - Release of other information to the HWS, claims payer and employer about work status, work capacity, protective restrictions, capability limitations, potential work adjustments or accommodations, and expected timeline of recovery.
- 3) Complete an HWS-supplied Activity Prescription form (or one that contains identical information) at the initial and at each follow-up visit.
- 4) Submit documentation of time spent and content of interactions concerning functional recovery and SAW/RTW issues with HWS staff, a patient’s employer or benefit payer or their agents via telephone calls, electronic communication, written communications (including additional types of forms). This will be billed in units of 6-10 minutes.

Other incentive designs. There are three reasons why we strongly recommend avoiding “pay-for-performance schemes” that provide an incentive payment at the end of some designated period (quarter or year) for aggregate results or patterns of performance. First, the expected low number of cases referred to the HWS by each physician will make it impossible from a statistical point of view to deploy a fair incentive program based on a “pattern” of performance. Second, practical experience with operationalizing such schemes has revealed that the detailed design must be surprisingly complex, they are slow and very difficult to implement and operate from a data capture and quality perspective – and they generate many disputes. Third, experience with delayed reward programs in general healthcare has not been promising, with little sign of significantly increased desired practice patterns or provider behavior. Research on human behavior predicts that long delays between effort and reward is a very weak incentive for changing behavior.

As far as we are aware, with only a couple of exceptions, most other efforts at devising physician incentives have been isolated, limited to workers’ compensation, fraught with difficulty and ultimately unsuccessful. In particular, we strongly advise against any incentive that might conceivably look like a “bounty” for an outcome that might be construed as pitting the patient’s interest against the doctor’s such as a fee for every patient released to full duty or every successful return to work.

Sustainability

In our original paper, we suggested that the Federal government subsidize the costs of establishing and operating the HWS until it got up and running and started gaining community support in the form of other potential payers (state agencies, private employers and benefits payers). We envisioned that the HWS's revenue streams would eventually be a mixture of public funding, charitable support, and fee for service revenue from public and private payers. See Section D on page 20 of our original proposal.

Washington State's COHE program also offers some insight with regard to sustainability of the HWS itself. As the sole paying customer for the COHEs services, Washington L&I appears not to have concerned itself with the issue of their financial sustainability, and until recently all of them seem to have operated at a loss. They have recently formed an organization to negotiate this issue with L&I. During the period each COHE was setting itself up, each one received a modest cash to support recruitment of community physician members. Once operations began, the overhead costs of the COHE (the salaries of the medical director, provider relations staff, program director and administrative staff) were offset by a flat payment from Washington LNI for processing every new referral.

In combination, the payments from L&I have been insufficient to make operating a COHE economically attractive as a standalone enterprise. COHEs that are located within a larger healthcare entity that attracts increased patient volume as a result of the COHE's activities (or its perceived high quality) are willing and able to make up for the loss. In this setting, a COHE serves as a "loss leader" for the larger organization that houses it. (Hospitals offer obstetrical and emergency room services for similar reasons.) COHEs controlled by one healthcare delivery organization in a community with fierce medical competition have difficulty enrolling doctors outside their own orbit – due to fears of the COHE's poaching patient volume. COHE must make extra effort must be taken to reassure physicians who are aligned with competitor organizations that this will not occur.

On the other hand, the Eastern Washington COHE is housed in a rehabilitation hospital that provides no outpatient care and has historically served both of the two main competitor healthcare organizations in Spokane. That COHE has been unsustainable from a strictly financial perspective. Its continued operation has been explained by the personal philosophy and commitment to community-oriented initiatives of the current CEO of the rehabilitation hospital. Thus, without a clear commitment to standalone sustainability, a COHE either serves to further the marketing interests of the organization that houses it, or depends on the willingness of an organization to operate at a loss.

We continue to recommend that those who establish and fund the HWS expect it to operate (once it is accepted by the community, garners a significant volume of referrals and achieves steady state) in the black with a mixture of fee-for-service revenue from services to individuals with benefits coverage, plus public agency and charitable funding for services to those who do not.

COMMENTS ON SPECIFIC KEY DETAILS OF DESIGN AND OPERATIONALIZATION

1. The HWS will be a new "citizen" in an existing social fabric of organizations and programs.

Since something like an HWS has never existed before; it will be a new entry among the existing panoply of organizations that make up the social fabric – the corporate and agency "citizens" of a particular geographic area. (An analogue would be a community's new web-based ride-sharing service,

library, after-school or senior center, food bank, homeless shelter, or center for refugee relocation). The HWS must insert itself into that community.

Local organizations that might make referrals (or one day sponsor or operate the HWS service) may already exist in the community today. But at present they do not see this issue as part of their mission or consider themselves as eligible or responsible for taking on the challenge. They are not looking for a place to refer workers who need help with SAW/RTW, nor is there a place to refer them – yet. No-one will think to refer someone to an organization they don't know exists.

In addition to adding another organization/ program to the community of organizations/ programs, each new local HWS Ops will be setting out to make modifications to the intangible and dynamic infrastructure in their community – additions that will bridge existing gaps in the integrity of the social fabric. The HWS Ops will be establishing relationships and channels that enable regular information sharing and collaboration in problem-solving among parties that do not systematically interact that way today. This invisible new infrastructure will establish new patterns of multi-stakeholder interactions and reinforce new practices that over time can become regular habits. Needless to say, this will necessitate the HWS doing the hard work of learning key details about the programs, policies and practices of the agencies, companies in its operating area with which the HWS will need to interact – and it will be a very valuable achievement.

On the human level, HWS community relations staff must integrate itself into the local knowledge and web of human relationships that makes up the real social fabric. Maintaining high awareness and building personal relationships with key individuals within existing organizations will be important, until the existence of the HWS becomes as well-known as other community institutions. And of course, the people in all of those community institutions must perceive the HWS as a real addition to the community, as trustworthy, helpful and effective, or else they will not refer to it. Therefore, the HWS needs to describe itself to the community in novel and simple terms, ones that make it instantly recognizable as an obvious and welcome solution to a problem they now see and agree is important.

Although Washington's COHE program was an intentional and carefully designed large-scale system transformation, its success is at least partly due to its quite tightly limited scope which required only minor alterations to the healthcare delivery system and involved no other agencies or community institutions – as well as the slow pace with which it was introduced.

As a major healthcare system payer, and through a request for proposal (RFP) process, LNI called into being organizations within the healthcare sector that had not existed before. COHE was first envisioned by the medical leadership of the sponsoring state agency, the Washington State Department of Labor & Industries (LNI), which successfully persuaded the state legislature to fund a pilot program. The goal was to insert an entity (the COHE) as an intermediary between the existing healthcare delivery system and LNI in order to reduce needless work disability. The COHEs were positioned as occupational health resource centers for primary care physicians within their catchment area, and were expected to encourage the increased adoption of so-called “occupational health best practices” related to fostering functional recovery and preventing needless work disability over time among that group. The COHEs were also positioned as a source of support for member physicians, their patients, and other stakeholders in individual workers' compensation cases by facilitating communications on those topics among the parties.

Thus, LNI's organizational specifications simultaneously positioned the COHEs as geography-specific based quality and outcomes improvement organizations as well as active go-betweens in the SAW/RTW process.

2. Building community awareness, demand for, and readiness of other organizations to interact with the HWS will take time.

It is essential to start months in advance and get community relations staff on site doing preparatory work before operationalizing the HWS – because of the slow pace at which informal and then formal inter-organizational / inter-sector bridges are built.

At the outset, local HWS Ops must spend time getting to know influential leaders within the geographic service area and introduce the idea that work disability and job loss can and should be prevented whenever possible. This is a new idea so time and repetition will be required to get it to take root.

During this period, the advance staff must also create human relationships and create shared commitments to meeting the needs of the HWS' target population among the HWS' future collaborators in different social sectors: governmental agencies, public or private healthcare delivery systems, employer organizations, insurance programs, and charitable organizations.

One way to start doing this is to create a multi-stakeholder Advisory Board for each geographic area's HWS and start holding meetings to get their input on the design details of the HWS. This will be a major strengthening of the local social fabric since these organizations and the people who work in them do not even know one another today, much less collaborate to reach shared goals.

At the same time, the advance work must include studying the various ways the SAW/RTW process is currently working in that geographic area, given the current configuration of the employment sector, the healthcare delivery sector and its interactions with the employer and payer sectors (workers' compensation and commercial disability benefits and governmental disability benefits). In particular, the advance staff should study the competitiveness of the local healthcare marketplace in order to make informed choices about aligning with organizations and housing the HWS.

3. HWS must be simultaneously catalyzing small but important changes in different sectors / silos / parts of the social fabric.

From an operational perspective, the HWS must successfully catalyze changes in four different locations all more or less at the same time, three of which are not under its control. It must persuade professionals in three sectors of society to make small changes in how they do things – while it is doing new things itself. During implementation, this will require HWS Ops to have sufficient bench strength in Community Relations, legal review, and financial administrative operations to provide operational support for activity going on simultaneously on several fronts. They will be making arrangements so that new:

1. Activities start occurring **INSIDE** doctors' offices throughout the medical community: the specific activities (behaviors) that the HWS is asking them to perform and send a bill for – and promises to pay them for.
2. Activities start occurring **INSIDE** the worker's workplace: the specific activities (behaviors) the employer is being encouraged or taught to do by the HWS (and, if the HWS is providing an incentive or subsidy) that the employer may need to apply for a grant for or send a bill for.
3. Activities start occurring **INSIDE** each local HWS to connect/coordinate/teach and facilitate not just information transfer but also problem-solving efforts among the actors in #1 and #2.
4. Activities start occurring in an array of organizations that provide "job saving services" **UNDER CONTRACT** to the local HWS after a request by the treating doctor, the Recovery

Coordinator, or the employer because an obstacle to return to work exists that requires timely application of special expertise or a tangible solution. (See #8 below - What to do when simple secondary prevention services are not enough.)

These services will need to be requested, vendors identified, services scheduled, delivered, and paid for by HWS Ops. HWS Ops will also be responsible for establishing relationships and contracting with potential service or equipment providers in advance and on an ad hoc basis, establishing standard service protocols that include provisions for timely access and turnaround times, and handling financial transactions with them.

4. The right “home” for the HWS’s Recovery Coordinators and medical back-up is critical.

We recommend that the HWS’s Recovery Coordinators and their medical back-up be both physically and organizationally housed within the healthcare delivery system in order to create trust and buy-in by all parties and also to reduce HIPAA- and privacy-related barriers to communication.

The community and especially the key participants in individual situations (workers, physicians and employers) must view the HWS program as trustworthy, genuinely helpful, and neutral – so that physicians will be willing to refer, workers will be willing to participate, and employers will be willing to refer and/or cooperate with SAW/RTW efforts. The HSC must also be affiliated with/housed in an organization that is perceived by both the worker and the treating physician as caring, and cannot be perceived having an interest in cutting benefits or saving money at the expense of the affected individual’s well-being. Practically speaking, that means the HSC should not appear to be affiliated with either the claims payer’s or employer’s operations or the government. By claims payer, we are including health, workers’ compensation, and disability benefits claims organizations and their vendors. A nonprofit or charitable organization with a perceived strong advocacy agenda of any kind would also not be appropriate.

In Washington State, although the official accounts do not emphasize this point, the positioning of the COHEs is brilliant – as a trustworthy, expert, neutral addition to the healthcare delivery system. Thus, a local COHE and its member physicians becomes an attractive and organized alternative – a “better mousetrap” – that co-exists alongside the existing system’s often haphazard approach to the functional recovery and SAW/RTW processes.

Therefore, we recommend that the HWS be visibly affiliated with/ sponsored by an existing healthcare delivery organization that is highly visible in the community, familiar to all stakeholders, well-respected and perceived as highly professional and high quality. It should also have a reputation for playing well with others, which means it should either not deliver outpatient care or it should be seen as a fair competitor, and thus unlikely to attempt to take advantage or poach patient volume). Failing that, a health-related charitable organization might be a second choice.

A second benefit of this location (which should not be underestimated) is that it will reduce HIPAA-related reluctance to share information. Medical organizations (and their attorneys/ risk managers) have less concern about sharing information with another clinical entity – and more reluctance to share it with entities perceived as “outside”: payers and government agencies. The HWS will fail if it is unable to perform one of its essential functions: the sharing of appropriate information among stakeholders.

5. Referral criteria

We recommend the use of simple and easy to implement referral criteria for community sources to use. Since referral volumes will make or break the HWS, make the referral process as easy and efficient as possible for the referrers, which for healthcare professionals means making it as easy as referring to a specialist or another healthcare program. (Be customer-focused: Do not attempt to make it easy or convenient for the HWS.)

In order to obtain buy-in by referral sources, we recommend no more than five simple criteria such as these:

1. Employment status – The individual should be a worker / consider themselves a member of the workforce: employed, in a contract position, or self-employed; with a history of steadily earning money for more than 20 hours of work a week; or recently laid-off.
2. Age – 18 years – no upper limit.
3. Work status – The worker should already be off work for health reasons or highly likely to go off work for an extended period for health reasons.
4. Duration of work absence – Referral should be made as soon as the expected or actual work absence exceeds two weeks. Referrals should not be made if absence already exceeds 12 weeks. Referrals after surgery can be made anytime from two to six weeks post-op, depending on the nature of the procedure.
5. Health reasons – The health problem causing the current work absence should be of recent onset or have recently destabilized or worsened – within the last few days or weeks. It can be an injury, illness, a recent surgical procedure, or deterioration in a chronic condition – and can be due to any cause. Referrals are especially encouraged for low back pain, other soft tissue musculoskeletal conditions, and conditions with pain and fatigue predominating.

Here are some comments re: the referral criteria.

Age. If someone is already working at age 18, why would they not deserve the support of this program? People at 18 may be more adaptable than other workers, but they also have less experience at dealing with major difficulties and challenges – and a poor outcome that could have prevented will cause decades of work disability. People who become injured or ill in their mid-50's are faced with simultaneous challenges to both their health and to their careers. Therefore, it seems as though this population deserves the kind of timely extra support for achieving a successful adaptation to loss that the HWS program exemplifies. In the last thirty years, millions of Americans in their 40's and 50's (without disabling health problems) have been suddenly dislocated and forced to “reinvent” themselves vocationally due to the loss of their jobs through layoffs coupled with reduced market demand for their occupations. Although these losses are very painful at first, many of them report ending up content with their new situations.

A surprisingly large fraction of Americans today is finding ways to continue to earn money beyond the traditional “retirement age,” often by working less than full time, working for themselves, or doing a different type of work entirely. Therefore, the age range should extend to at least 70 (the latest age at which Social Security Insurance benefits must start) or have no upper limit – since many Baby Boomers intend to continue working in retirement. Those who do want to do so may need guidance on how to adapt to new circumstances as well as expert support in finding a way to keep working.

Health Condition – The majority of new health complaints in working age people are common everyday symptoms that are minor and self-limited. It is usually clear to the physician that, unless other risk factors become manifest, the worker will return to their usual state of health and functional ability. Physicians are extremely unlikely to refer these cases to the HWS unless (a) they have intuitively detected the likelihood of difficulty in SAW/RTW due the patient’s attitude or behavior; and/or (b) unusual delays in medical or functional recovery have already occurred.

Although very common, musculoskeletal conditions, especially sprains and strains, have much more variable outcomes. Those that appear minor can gradually morph into catastrophes. However, most physicians have not had any formal training on how to identify those cases or intervene to avoid that evolution. This is precisely what the HWS is being established to do.

6. Screen for eligibility for continuing services after referral and ensure everyone who is referred gets something they perceive as valuable; eligible workers should then be triaged and evaluated to determine what specific services are needed in each case.

We believe the HWS must sort the wheat from the chaff instead of asking the community to do it. Asking referral sources to do a better job of assessing risk than they do today is unrealistic as explained below. By the time the risk becomes obvious, the best time to intervene has already passed. So, it is better to plan for the HWS to do it.

More specifically, we caution against asking busy physicians to assess the likelihood of long-term disability or a poor outcome. All that is reasonable is to ask them to make a referral like they would to a specialist or for a diagnostic test, with a minimum of effort using simple referral criteria. An example might be “any patient who has been working and who recently developed a health problem and has missed work (or will miss work) for more than two weeks.”

We also caution against expecting employers or insurers to screen cases. If they knew how to do it accurately and saw its value, they would be doing it now since it is in their economic interest to do so. However, there is little to no systematic screening now used to predict poor employment or SAW/RTW outcomes except among the most forward thinking and aggressive large employers, workers’ compensation and disability claim management operations. Systematic screening has been estimated to be in current use by less than 5% of these organizations.

The Recovery Coordinators will be trained to perform basic triage and initial screening assessments. We suggest that they employ a structured and formal process to assure a consistent and objectively documented approach, but that may not be necessary at the start. For example, the HSC’s at the COHEs in Washington figured out an intuitive method they believe works well based on prior professional experience and on-the-job learning. Because they work in a defined geography and are constantly monitoring SAW/RTW communications between community employers and COHE member physicians, they become familiar with their usual behavior. When the HSC senses that a situation is “at risk” for a poor outcome, they allocate their time and effort accordingly. They ask the COHE medical directors for informal consultation and ad hoc intervention. The medical directors have clinical expertise in occupational medicine and are members of the local medical community, so they can help facilitate the resolution of minor to moderately complex SAW/RTW problems.

After referral, the HWS’s triage and initial screening processes will identify three subgroups of workers based on their situation:

1. Those who do not actually meet referral criteria
2. Those who do meet criteria but appear to be at low risk for poor outcomes.

3. Those who are at increased risk for long-term work disability.

Despite all efforts to publicize the HWS's referral criteria, some people who are referred will not actually meet them. The most common reasons will probably be duration of work disability (they were referred after more than 12 weeks of work disability) or the biological severity of their condition (they have had complex surgical procedures or traumatic injuries that will require full time involvement in medical care and physical/mental rehabilitation for more than 6 months).

Everyone in groups 1 and 2 above must get something they consider to be reasonable and useful out of the time and effort they made to connect with the HWS. If not, the stream of referrals will dry up. Someone went to the effort of making the referral who needs to be thanked and rewarded for that effort – so they do it again (and it is a good idea to provide feedback that reminds them that the HWS exists and restates the referral criteria).

Among subset 2, the “low risk” group there will be some who were originally misclassified and some whose situation becomes compromised by unfortunate events that occur as their episode unfolds and delay or derail their recovery and RTW. This will become apparent because they do not RTW within the expected timeframe. (We recommend that the HWS use disability duration guidelines based on data from millions of actual disability episodes such as those published by ODG or MDGuidelines to establish these expectations.) All those who fail to recover within the expected duration will be offered a screening assessment. If it reveals increased risks, these workers will proceed to a diagnostic assessment and move into into the active support and intervention group.

Four types of evaluation

We distinguish between the four separate types of evaluation: triage, initial risk screening assessment, diagnostic assessment, and progress/outcome assessment because all of these should be deployed stepwise (explicitly and appropriately) in an effective HWS.

Triage

Triage is a rapid, short, and simple-appearing process. In the setting of the HWS, the triage process will divide all incoming referrals into four categories:

- (1) those individuals whose situation does not meet referral criteria,
- (2) those who met criteria but do not need active support,
- (3) those who obviously need active support, and
- (4) those who may need it but must be evaluated in more depth to determine what is actually going on and what might make a difference.

Triage is not as simple as it seems on the surface because important clues must be recognized in order to categorize situations accurately. Triage is best done by a highly trained person familiar with the local environment who will know how to interpret the implication of basic facts. One telling example: a seasoned HSC in Washington commented that she often could tell whether a case needed intervention as soon as she saw the name of the physician and/or the name of the employer. The triage function must be overseen by a professional with both clinical and vocational expertise and with familiarity with the local medical system and business community.

Triage can be extremely simple or more comprehensive. Even a single question (or two or three) posed to a worker either in writing or verbally can be an effective first pass at triage.

Initial risk screening

Initial risk screening is a bit more comprehensive than triage but still limited in scope. It helps sort out the middle group in triage – those who might or might not need a diagnostic assessment. Initial screening can be completed quickly and at low cost. Forms to capture the results of screening often include short standardized questionnaires completed either on paper or on-line. HWS professionals can administer and score them after a short training.

Many screening instruments have been developed and tested that assess worker-centered risk (beliefs, emotions, behaviors, etc.). Although it is clear risks exist in other dimensions of the situation (nature of job, workplace, nature of medical condition, payer/benefit system) there is a major gap in the screening tools currently available. In fact, there is no generally-accepted methodology for briefly assessing, documenting, and quantifying risks in other life dimensions. Therefore, each HWS is going to need to develop and continue to refine their own initial multi-dimensional risk screening methodology and procedures.

Diagnostic assessments.

Once an initial risk screening assessment reveals the presence of risks in various dimensions of the situation, more definitive assessment is required in order to clarify the nature of (“diagnose”) the specific issues or obstacles to recovery and SAW/RTW that need to be addressed and their potential for remediation. This is best accomplished through semi-structured interviews with a trained professional.

Progress/outcome assessment

It is essential to document and track changes in the workers’ situations over time and gauge the impact that their engagement with the HWS program is having on their recovery of function and SAW/RTW status. In addition to qualitative information, structured data that captures interim events, functional and work status, catalogs the nature of obstacles identified and resolved and quantitative metrics about return of functional capabilities – all along a timeline with dates -- are examples of the important information that a progress and outcome assessment should contain. Often some of the same instruments used as part of diagnostic assessments can be used to detect change or improvement as an indicator of progress.

8. Identify community providers of specialized services and equipment that can save jobs; make arrangements in advance so they are delivered promptly when needed.

Predictably, the Recovery Coordinators will sometimes encounter specific thorny obstacles to SAW/RTW in individual cases that threaten to substantially prolong work disability or result in job loss. These thorny obstacles will require more intensive or more expert services than the Recovery Coordinator is prepared to deliver. The Recovery Coordinators must be able to request and arrange delivery of more intensive or technical services or products to help workers in these situations keep their jobs or find new ones promptly. Depending on the specific issues in an individual’s situation, these job saving activities may occur in a variety of settings and involve a wide array of possibilities.

A few examples include:

- Worksite meetings (or conference calls) facilitated by a professional with expertise in preparing for and conducting multi-party sessions to clarify obstacles to and concerns about RTW and develop of a mutually agreeable SAW/RTW plan;

- Worksite visits by a professional with expertise in determining the functional demands of a job, assessing ergonomics of the work environment, distinguishing between essential vs. non-essential functions, making recommendations for temporary work adjustments or long-term reasonable accommodations, and facilitating three-way problem-solving discussions with worker and employer, preferably the line manager.
- Selection, purchase, and instruction in the appropriate use of work station modifications, protective or adaptive equipment, assistive devices, or any other material device that will permit SAW/RTW.

On occasion, it will become swiftly clear to the Recovery Coordinator that a worker has suffered a significant change in their functional capacity, will be unable to work at their usual job for an uncertain but prolonged period (most likely beyond the FMLA job protection period, or beyond the time when their employer will voluntarily hold their job) and will require substantial assistance with workforce re-entry – but due to timing issues or waiting lists will not be able to receive services from other disability programs. They will need assistance by a professional with quickly finding alternative work – either a temporary assignment during recovery in another department at their usual place of work or at another employer or non-profit community organization, or applying for an entirely different job with a new employer that is within the worker’s current capabilities.

The Recovery Coordinators will need to have quick and easy access to an effective and accessible inventory of local and on-line specialized solution providers that can provide intensive support to address and resolve those issues or supply a technical solution. We suggest calling these “specialty job saving services.” Jobs are lost at the speed of life, not bureaucracy, so assuring that turnaround timelines are met will be important to the success of the HWS’s efforts to keep people employed.

Recovery Coordinators should be provided with information about how to procure these more intensive services when the HWS begins operations. In order to assure timely delivery, HWS Ops management will need to anticipate the need for these services, set up a way to identify and formalize service protocols and financial arrangements with these providers in advance, and evolve the inventory of available resources over time.

9 Beware premature attempts at high-tech data interchange solutions which that severely limit ease of revisions; in the early phases, it may be better to use paper, Excel, and fax.

Key to the effectiveness of the Recovery Coordinators (and thus the HWS in which they work) will be a good case management system that tracks individual situations, provides comprehensive and timely information about what happens while the individual is receiving services, captures structured and unstructured data to allow process and outcomes reporting, and makes communication easy among the parties participating in that situation. That system is probably not available today, and if it were available, it would need to be customized to fit the protocols and processes of the HWS – which do not yet exist.

Our recommendation is to beware premature attempts at high tech data interchange solutions that may literally take years to implement. While things are still getting sorted out, and better solutions are still in development, the HWS can begin operations by employing the kind of crude systems that preceded the sophisticated computer systems and data interchange capabilities of today. Make do with paper, Excel, and fax at the beginning. “Do not let the excellent drive out the good-enough-for starters.” Striving for efficiency on day one is actually an unrealistic, even foolish, goal because many important things will only become visible after operations have been going for a while.

The staff of the original COHEs in Washington state described their starter case management and communications “systems” at a conference last year. During the initial pilot – the one that initially showed a strong benefit of the COHE’s involvement – the COHEs were simply faxing information back and forth with Washington L&I, using spreadsheets and their own improvised internal case tracking system. (Note: Even today, faxing remains the most common way that medical offices communicate with outside organizations.)

Needless to say, these early crude systems were very inefficient and demand a lot of duplicate data entry and effort. However, they worked, and allowed the program to get off the ground and demonstrate its value before requiring a major investment in information system support.

It took years, but Washington L&I eventually realized they wanted all of the COHEs to be able to access L&I’s claim system, and to use a single case management system – and it took even longer to get the funding to do it then build the system. All of the COHEs now use a portal to access L&I’s system directly (on a daily basis). L&I paid for development of the case management system all of the COHEs are now using.

Information Management & Technology Challenges and Risks.

In order for the HWS to function as intended, frequent two-way exchanges of information (unstructured information and structured data) will be necessary among the multiple organizations that will be participating in the HWS program. This immediately creates a dream of establishing multi-way electronic data exchange and dissemination capability. However, the entities with whom the HWS needs to exchange information will be unfamiliar with the HWS. They will not see the problems HWS is trying to solve as high priority for their own organizations. Thus, they will be difficult to engage and slow to participate, especially in IT-related efforts. Thus, it will most likely take a long time (most likely measured in years) to negotiate and then implement any automated data sharing arrangement with the HWS’ partners, especially given data privacy issues and security risks.

The complexity of the HWS program means that information management support and data interchange will be required for many different types of components. Unless specific steps are taken early on to assemble and agree on a big picture understanding of all of these components’ information management needs and a reasonable forecast of the resources and time it will require to meet them, there is a significant risk of becoming overly focused on one or another, leaving imbalanced capabilities and inadequate support in key areas.

Here are a few suggestions with regard to these issues:

- We suggest that the HWS Sponsor along with each local HWS Op’s IT organization strongly focus on the big picture goals of ensuring that HWS succeeds in its mission-critical activities from the beginning: getting referrals of workers, delivering services to them that make a difference in their employment and health outcomes, and documenting activities and results – so that the value of HWS is made real and/or that any problems preventing success are clearly documented and able to guide future efforts.
- Create a summary-level business processes model covering the involved information management domains, especially detailed in the processes regarding service delivery to individuals. Also develop a summary diagram that shows the various types of organizations and individuals that will be involved in information exchanges of one kind or another with HWS. Use these two things to elicit information management needs from operating and service delivery staff in the HWS.

- Be realistic in assessing capabilities of the fledgling HWS Ops, its service delivery partners, and the willingness to cooperate (much less collaborate) of all other participants in the HWS program.
- Keep the thinking (strategies and plans) about information management and business process design distinct from strategies and plans for computer system solutions – because the service may need to launch and operate for a while with very basic support methods. Make things as easy as possible for partners and participants who see HWS as a small potato, and as only one of many outside entities pressing on them. Accept paper forms, Excel spreadsheets, faxes, and verbal information by phone.
- Given the constraints above, avoid premature pursuit of comprehensive technological solutions. Allow things to be done in inefficient and laborious ways until you are absolutely sure that what you are doing, collecting, analyzing and reporting is what you really need.