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REPORT

FINAL REPORT

Stay-at-Work/Return-to-Work: Key Facts, Critical Information Gaps, and Current Practices and Proposals

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I. INTRODUCTION

Every year, more than 2 million workers leave the labor force, at least temporarily, with the onset of medical problems that could challenge their ability to work over a long period or even permanently (Hollenbeck 2015). For some, these medical problems may have been caused or worsened by their job responsibilities or working conditions, and for others, the problems were unrelated to their jobs. Without steady earnings, these workers and their families often must turn to public programs such as Social Security Disability Insurance (SSDI), Supplemental Security Income (SSI), Medicare, and Medicaid. Hundreds of thousands of such workers enter SSDI alone every year.[1]

Many workers who experience injury, illness, or disability today fall through the cracks of a fragmented system (Ben-Shalom 2016). They are too often left to navigate, on their own, myriad uncoordinated service providers and programs that are poorly equipped to address their situations or are only accessed when it is too late for the services to help. If a medical condition is job-related, the worker is typically eligible for cash benefits and medical care through workers' compensation (WC). The level of benefits and the quality of care provided under WC, however, vary widely across states (Sengupta and Baldwin 2015, Workers' Compensation Research Institute 2016). Furthermore, job-retention services and supports are not always available, and the level and quality of the services that are available can vary widely.

For workers not covered by WC, the scenario is often more dire. In 2014, only 39 percent of private sector workers had short-term private disability insurance (PDI) for off-the-job conditions, and only 33 percent had long-term coverage (Monaco 2015). Here, too, provision of job-retention services and supports varies widely. Workers without PDI are disproportionately employed in low-skill, low-wage positions and are the most likely to apply for SSDI benefits. Regardless of the system in which medical care is obtained, poor medical care often leads to unnecessary withdrawal from work (Christian 2015).

Workers who need help to stay in the labor force fall through the cracks in systems other than WC and PDI as well. One important system is the private health care system—virtually all workers who experience medical problems will at some point seek care from a physician or other health care provider. In many instances, at least some of their care will be paid for by private insurers. Other relevant programs include several that are run by state agencies, including state vocational rehabilitation (VR), workforce development, and mental health agencies, as well as Medicaid. Five states (California, Hawaii, New Jersey, New York, and Rhode Island) also run mandatory short-term disability insurance (STDI) programs that cover most workers in those states.

There is great potential to make changes in these systems that would help workers keep their jobs, improve their own well-being and the well-being of their families, keep them contributing to the economy's output, and save billions of federal and state dollars. According to a recent

[1] In 2014, 778,796 individuals were awarded SSDI benefits for disabled workers; 68 percent of them were age 50 or older. Among all awardees, 14.6 percent had mental disorders (other than intellectual disability) and 36.1 percent had diseases of the musculoskeletal system and connective tissue as their primary diagnoses. These percentages were 8.4 and 41.8, respectively, among awardees age 50 and older (SSA 2015).

cost-benefit analysis (Ben-Shalom and Burak 2016), state governments could realize substantial net benefits by implementing successful programs that are designed to help more of the affected workers stay at or return to work instead of relying on disability benefits. The net benefits to states would come primarily from increased tax revenues from workers who retain their jobs and from the reduced costs associated with Medicaid coverage and other public assistance programs. However, these benefits might not be large enough in relation to costs for states to launch initiatives on their own. The federal government would reap even larger benefits from higher tax revenues and, more notably, from lower spending on public assistance. And workers stand to gain the most, because more of them could stay in the labor market and realize the benefits of employment, such as higher earnings and enhanced social and emotional well-being (Waddell and Burton 2006).

There is a considerable body of evidence on effective interventions that help workers stay in the labor force after a medical issue. (An annotated bibliography can be found in the appendix.) The literature consistently favors early over late intervention (for example, Franche et al. 2005, Tompa et al. 2008, and OECD 2015). Ideally, the intervention would take place while the worker is still attached to his or her employer,[2] and certainly before the worker has left the labor force. This typically means intervening *before* the worker applies for SSDI.

The clearest and most noteworthy finding from the research on evidence-based early intervention is that considerable success can be achieved by providing supports to workers with musculoskeletal conditions (particularly lower back pain), mental health conditions, and other chronic conditions for which adherence to treatment is critical (Stapleton et al. 2015). There is little evidence that the success of such interventions varies by age or gender; worker motivation appears to be the most important determinant of success.

It is important, however, to recognize that much of the evidence on successful interventions comes from studies of WC or PDI claimants. For this reason, we do not know how well they would work for other workers that end up entering SSDI. Because most SSDI entrants do *not* receive WC or PDI benefits first (Thompkins et al. 2014), the efficacy of those interventions must be tested outside of those systems. Other critical information gaps include the following:

- What is the most cost-effective way to fund and deliver job-retention services both inside and outside of WC and PDI systems?
- How successful are current state programs that are designed to help workers keep their jobs after injury, illness, or disability (see Chapter II)? To our knowledge, only the COHE program in Washington State has been rigorously evaluated.
- To what extent would providing new SAW/RTW services crowd out services already provided, and how can crowd-out be minimized?
- What is the current capacity of relevant entities to provide SAW/RTW services to more workers? What would it take to increase such capacity?

[2] Numerous studies reveal that employer cooperation is a key component of success in staying at or returning to work.

- What would be the spillover effects of any large-scale public SAW/RTW service on demand for and supply of SAW/RTW services in the private sector?

In addition, information on the costs for conducting many of the current proposals for demonstrations related to SAW/RTW and the workforce attachment of people with disabilities is not readily available (see Chapter III).

Despite considerable knowledge about "what works," it is a great challenge to deliver the right services to the right people at the right time. Providing timely job-retention services to workers who could benefit from such services is *relatively* straightforward in WC and PDI, and there are substantial incentives for employers to do so. In these systems, whether directly or indirectly, funding for health and benefits largely comes from a single source—the employer. Furthermore, the filing of a claim, which the worker must do to receive benefits, can serve as a trigger for intervention. Although many WC and PDI programs have indeed implemented promising practices to improve job retention, there is much variation across states, employers, and vendors, with no standard way of tracking outcomes. The federal and state governments could play a role in fostering improvements in the early intervention efforts of these programs, but most workers who leave the labor force because of medical problems are not covered by WC or PDI.

Outside of WC and PDI, the responsibility for funding the necessary health care and rehabilitation services is held by several parties, and in many instances the worker's out-of-pocket expenses are high (Stapleton and Christian 2016). Furthermore, service delivery is less likely to be coordinated because of fragmented financing and institutional barriers like the privacy provisions of the Health Insurance Portability and Accountability Act (HIPAA). This means that federal and state governments can play an important role by stepping in to provide services to those who need them, providing incentives for the private sector to do so, and appropriately addressing regulatory issues like HIPAA. It may be more difficult to be innovative in providing job retention services to workers whose medical problems are not covered by WC or PDI, but the barriers that stand in the way of innovation may signal that the impacts of providing services to such workers could be relatively large.

There is strong potential to improve outcomes by leveraging existing programs and private sector capabilities. States could rapidly develop and test promising programs in partnership with the private sector. The federal government could encourage more states to act by adopting at least two policies: (1) ensuring the cooperation of multiple federal agencies as needed, and (2) giving states the ability to capture a share of the savings likely to accrue to SSDI, Medicare, and other federal programs.

The purpose of this report is to provide useful information to federal and state policymakers who are interested in piloting interventions to improve stay-at-work/return-to-work (SAW/RTW) and workforce attachment outcomes among people with disabilities. The information in this report is based on work performed by the SAW/RTW Policy Collaborative project team from October 2013 through September 2016. In Chapter II, we first summarize the most promising current job-retention strategies implemented by states. We then summarize current proposals for demonstrations related to SAW/RTW and the workforce attachment of people with disabilities, including a discussion of the demonstration and waiver authorities required to conduct them

(Chapter III). We include an annotated bibliography of relevant literature on early intervention and workforce retention of people with disabilities in the appendix.

II. CURRENT STATE STRATEGIES

A number of states have adopted promising early-intervention strategies to help workers keep their jobs when medical problems challenge their ability to work. States have a variety of systems in which they can identify and engage individuals who are at risk of job loss; these include WC, public STDI programs, VR agencies, and state employee benefit programs. In Table II.1, we summarize 13 existing job-retention programs that are already implemented in states and could serve as models for other states or localities. These programs were identified in a SAW/RTW Policy Collaborative study that focused on promising early-intervention options for states that wish to help workers keep their jobs after injury, illness, or disability (Ben-Shalom 2016). This is not a comprehensive list of public job-retention strategies implemented in the United States. More information about these programs can be found in the links provided in the table and in Ben-Shalom (2016).

Table II.1. Current state programs that help workers keep their jobs after injury, illness, or disability

State:	Rhode Island
System:	Temporary Disability Insurance (TDI); up to 30 weeks
Program:	Partial Return to Work
Target population:	Workers with off-the-job injury or illness
Intervention:	Individuals collecting TDI are allowed to return to work on a partial basis while continuing their TDI benefits at a reduced level.
Required resources:	Administrative resources needed to adjust TDI benefits in weeks when the reported earnings from work are less than the weekly benefit amount and to validate those earnings with employers.
Scalability:	It should be straightforward to scale up the adjustment of TDI benefits in weeks with reported earnings, but validating more cases will require additional resources.
Replicability:	Similar programs could be implemented in other STDI states (California, Hawaii, New Jersey, and New York) and by private disability insurers.
URL:	http://www.dlt.ri.gov/tdi/pdf/tdiPartialRTW.pdf
State:	Rhode Island
System:	Temporary Disability Insurance; up to 30 weeks
Program:	Medical disability duration guidelines
Target population:	Workers with off-the-job injury or illness
Intervention:	Medical disability duration guidelines are used to determine the appropriate duration of benefits for each claimant based on the specific illness or injury.
Required resources:	Resources needed to obtain access to one of the proprietary medical duration guidelines and to monitor adherence to those guidelines. When a disability duration exceeds the length of time in the guidelines, the claim is referred to a claims management unit for further review.
Scalability:	The medical duration guidelines could be implemented for all claimants, although monitoring more cases will require additional resources.
Replicability:	Similar medical duration guidelines could be implemented in other STDI states (California, Hawaii, New Jersey, and New York) and by private disability insurers.
URL:	http://www.dlt.ri.gov/tdi/TopMedDurations.htm

TABLE II.1 (CONTINUED)

State:	Delaware
System:	State employee benefits (short- and long-term disability benefits)
Program:	Return-to-Work
Target population:	State employees claiming disability insurance benefits
Intervention:	A return-to-work coordinator works with insurance carrier staff, physicians, and supervisors to help employees return to work.
Required resources:	Financial resources needed to compensate the return-to-work coordinator/s. Potentially, there would also be some administrative functions required, such as a management information system and outreach to employees, supervisors, and medical providers.
Scalability:	Larger states will require a larger coordinating team; states could start by providing coordination for the employees of one state agency and expand the program to other state agencies. To our knowledge, most other states do not offer group disability insurance to their employees. Instead, they offer a certain amount of sick leave. Coordination could be provided without adding disability coverage, but might be more successful if coverage is provided, especially if it is conditional on pursuit of an acceptable return-to-work plan or otherwise tightly managed to support return to work.
Replicability:	Similar return-to-work coordination could be implemented by any state, especially if its employees are covered by group disability insurance.
URL:	http://ben.omb.delaware.gov/disability/documents/rtw-guidelines.pdf
State:	Vermont
System:	State and private sector employee benefits
Program:	Invest EAP
Target population:	State employees and a significant number of workers in the private sector
Intervention:	Employers are provided with comprehensive employee assistance services, including 24/7 telephone access to counselors, in-person counseling, and help with disability accommodations.
Required resources:	Personnel and financial resources needed to provide comprehensive employee assistance services and related outreach.
Scalability:	Covering more workers will require a larger EAP team, but there are also likely to be economies of scale.
Replicability:	Replicability: Most states provide EAP benefits to their own employees; they could work with their EAP provider to improve job-retention outcomes.
URL:	https://investeap.org/
State:	Alabama, Arkansas, Georgia, South Carolina (and others)
System:	Vocational Rehabilitation (VR)
Program:	Retaining a Valued Employee (RAVE) (or a comparable program)
Target population:	Workers whose job performance is negatively affected by a physical or mental impairment. Alabama VR has been in negotiations with the State Employee Injury Compensation Trust Fund to be the lead provider of job-retention services for state employees. Arkansas VR is now focusing in particular on providing job-retention services to state employees.
Intervention:	The program offers a single point of contact for employers and employees; a coordinator assesses an individual's needs and arranges assistance.
Required resources:	Resources needed to conduct outreach to employers and employees and to provide the needed job-retention services.

TABLE II.1 (CONTINUED)

Scalability	Additional funding and capacity are needed to conduct outreach with the goal of increased referrals to the RAVE program and to provide services to more workers. Alabama VR has a strong interest in scaling up RAVE, and it is likely that other states will be interested too.
Replicability:	Amendments to the Rehabilitation Act under The Workforce Innovation and Opportunity Act (WIOA) allow state VR agencies to prioritize workers who are at risk of losing their jobs, but the agencies typically lack the capacity and funding to do so while continuing to serve other high priority target populations. The Florida Division of Vocational Rehabilitation recently cited the WIOA authorization in its decision to "provide job retention services to eligible individuals, regardless of order of selection, who require specific services or equipment to keep their job."
URLs:	http://www.rehab.alabama.gov/docs/business-relations-program/ravebro0211forweb.pdf http://ace.arkansas.gov/arRehabServices/Documents/Stay%20at%20Work%20Return%20to%20Work.pdf http://www.rehabworks.org/
State:	Washington
System:	Workers' Compensation (WC)
Program:	Centers of Occupational Health and Education (COHE)
Target population:	Workers with job-related injury or illness
Intervention:	Washington State's Department of Labor & Industries contracts with community-based entities affiliated with large health care delivery organizations. These entities work with medical providers, employers, and injured workers in the first three to six months after an injury; activities include care coordination, training and incentives for physicians, and access to consultants who specialize in occupational medicine.
Required resources:	Resources needed to pay for the COHE services described above; additional resources would be needed to cover off-the-job cases.
Scalability:	Washington State first introduced the COHE program in two areas of the state; after favorable pilot results, it contracted with additional organizations to cover the entire state.
Replicability:	The COHE model could be implemented in the three other states with state-run workers' compensation systems: North Dakota, Ohio, and Wyoming; it could also be implemented by private WC insurers. Expansion outside of WC is more challenging, but could also be more successful because of greater fragmentation and other barriers to service delivery outside WC (see Stapleton and Christian 2016). Large self-insured employers and short-term disability insurers could also potentially adapt this model.
URL:	http://www.lni.wa.gov/claimsins/providers/projresearchcomm/ohs/
State:	Washington, Oregon
System:	Workers' Compensation (WC)
Program:	Stay at Work (in Washington), Employer-at-Injury Program (in Oregon)
Target population:	Workers with a job-related injury or illness
Intervention:	"At injury" employers are provided with wage subsidies, reimbursement for worksite modifications, and other costs associated with providing accommodations to help workers stay at work.
Required resources:	Resources needed to pay for and administer the wage subsidies and accommodations, provide related technical assistance, and promote the program.
Scalability:	Subsidizing more workers will require additional resources.

TABLE II.1 (CONTINUED)

Replicability:	A similar program could be implemented in any state's WC system; it could also be implemented by private WC insurers or by disability insurers, whether public or private.
URLs:	http://www.lni.wa.gov/main/stayatwork/ http://wcd.oregon.gov/rtw/Pages/eaip.aspx
State:	Oregon, North Dakota
System:	Workers' Compensation (WC)
Program:	Preferred Worker Program
Target population:	Workers with job-related injury or illness
Intervention:	Employers who hire injured workers are provided with wage subsidies, reimbursement for worksite modifications, and other costs associated with the accommodations that help workers stay at work.
Required resources:	Resources needed to pay for and administer the wage subsidies and accommodations and promote the program.
Scalability:	Subsidizing more workers will require additional resources.
Replicability:	A similar program could be implemented in any state's WC system; it could also be implemented by private WC insurers or by disability insurers, whether public or private.
URLs:	http://wcd.oregon.gov/rtw/Pages/pwp.aspx https://www.workforcesafety.com/employers/return-to-work/preferred-worker-program
State:	Ohio
System:	Workers' Compensation (WC)
Program:	Transitional Work Grants
Target population:	Workers with job-related injury or illness
Intervention:	Provides eligible employers with funds to develop a worksite program that helps injured workers perform transitional work while they recover from their injury.
Required resources:	Resources needed to pay for, administer, and promote the program.
Scalability:	Providing grants to more employers will require additional resources.
Replicability:	A similar program could be implemented in any state's WC system; it could also be implemented by private WC insurers or by disability insurers, whether public or private.
URL:	https://www.bwc.ohio.gov/employer/programs/TransitionalWork/TWGrantsDescription.asp
State:	Ohio
System:	Workers' Compensation (WC)
Program:	Transitional Work Bonus
Target population:	Workers with job-related injury or illness
Intervention:	Rewards employers who successfully provide transitional work to their injured employees.
Required resources:	Resources needed to pay for, administer, and promote the program.
Scalability:	Providing bonuses to more employers will require additional resources.
Replicability:	A similar program could be implemented in any state's WC system; it could also be implemented by private WC insurers or by disability insurers, whether public or private.

TABLE II.1 (CONTINUED)

URL:	https://www.bwc.ohio.gov/employer/programs/TransitionalWork/TWBonusDescription.asp
State:	Colorado
System:	Workers' Compensation (WC)
Program:	Medical Treatment Guidelines
Target population:	Workers with job-related injury or illness
Intervention:	Physicians treating workers with injury or chronic pain must follow evidence-based "best practice" medical treatment guidelines.
Required resources:	Resources needed to develop, update, and maintain the medical treatment guidelines; educate medical providers about the guidelines; and monitor adherence to the guidelines.
Scalability:	The medical treatment guidelines could be implemented for all claimants, but monitoring more cases will require more resources.
Replicability:	A similar program could be implemented in any state's WC system; it could also be implemented by private WC insurers or by health insurers, whether public or private.
URL:	https://www.colorado.gov/pacific/cdle/medical-treatment-guidelines

Note: STDI = short-term disability insurance. WC = workers' compensation. VR = vocational rehabilitation. EAP = Employee Assistance Program.

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III. IDEAS FOR POSSIBLE DEMONSTRATIONS

In this chapter, we present ideas for demonstrations that focus on SAW/RTW and the workforce attachment of people with disabilities, including a discussion of the demonstration and waiver authorities that would be required to conduct the demonstrations. This information will be useful to policymakers who are interested in piloting interventions to improve SAW/RTW and workforce attachment outcomes among people with disabilities.

In Table III.1, we summarize 31 ideas for demonstrations. The ideas are in various stages of development. Of the 31 proposals, 20 are early interventions for workers who have earned enough quarters of coverage to qualify for SSDI. In response to the Office of Disability Employment Policy's request for information on other proposals designed to increase the workforce attachment of different target populations with disabilities, we have added five options that target youth and young adults with disabilities who have not had substantial workforce attachment, including many who receive SSI as children or young adults; one option that targets both youth and working-age adults; two options that would divert SSDI applicants into a work-oriented alternative benefits path, and three options that provide partial benefits for current SSDI beneficiaries. In the next five sections, we briefly discuss each type of proposal. The last section includes more information about the demonstration and waiver authorities required to conduct the existing demonstration proposals.

A. Pre-SSDI application interventions targeting workers

The 20 ideas that are focused on helping workers before they apply for SSDI come from a variety of sources. The first 16 were included in reports completed in Year 3 of the SAW/RTW Policy Collaborative project (Ben-Shalom 2016; Contreary and Perez-Johnson 2016; and Stapleton and Christian 2016). The first 9 interventions address behavioral bottlenecks that arise among the stakeholders involved in a worker's trajectory after the onset of a medical condition, including the worker, physicians, and employers (Contreary and Perez-Johnson 2016). The 10th intervention offers case coordination services modeled after services provided by the Centers of Occupational Health and Education (COHE) in Washington State (Stapleton and Christian 2016). Interventions 11 through 16 are modeled after job-retention strategies that are already implemented in certain states and could be adopted by others.

Two other interventions are based on proposals that were included in the 2015 SSDI Solutions Initiative compendium (McCrery and Pomeroy 2016); one for a Health and Work Service (HWS) (Christian, Wickizer and Burton 2016) and one for an integrated Employment and [SSDI] Eligibility Services (EES) intervention (Stapleton, Ben-Shalom, and Mann 2016). The EES could be characterized as an intervention for SSDI applicants, but the intent of the system is to serve many workers before they reach the point when they would apply for SSDI under the current system—preferably while they are still attached to an employer. The two proposals overlap considerably in that the proposed HWS could function as the entry point to the EES.

One other proposal is conceptually related to the EES and HWS and could be viewed as a specialized version of the HWS for workers with mental health conditions. It is comparable to the Social Security Administration's Early Intervention Mental Health Demonstration and to a

fairly successful demonstration funded under grants from the National Institute of Mental Health —Recovery After an Initial Schizophrenia Episode (RAISE). We initially developed the idea in consultation with the principal investigators of the largest of the RAISE studies, a consortium led by the North Shore-Long Island Jewish Health System, now called Northwell Health (Kane et al. 2015). The demonstration would offer grants to randomly selected Community Mental Health Centers (CMHCs) drawn from a list of qualified applicants. Within the selected CMHCs, individuals with significant, first-episode psychiatric conditions would be the focus of community outreach and evidence-based services and supports—including supported employment—with the goal of avoiding application to SSDI.

The final proposal in this group is from Liebman and Smalligan (2013). A payroll tax discount would be offered to employers who (1) provide private insurance that pays for 100 percent of benefits in the first 24 months after disability onset and (2) include various work retention provisions. The amount of the discount based on the value of SSDI benefits that are saved.

Examples of other extant proposals that are not examined in detail here are the Burkhauser and Daly (2011) proposal to experience-rate the firm's portion of the payroll tax and the SSDI Solutions Initiative proposals to (1) allow private disability insurers to replace the usual opt-in provision for workers whose employers offer short-term disability benefits with an opt-out provision in all states; (2) provide a new wraparound benefit that would cover long-term care services and supports for workers with disabilities; and (3) change the way that SSDI benefits interact with WC benefits.

B. Pre-application interventions for youth and young adults

Five demonstration proposals are focused on youth or young adults with disabilities who are not established enough in the labor force to be disability-insured. Most individuals in this population have had disabilities since birth or childhood, and many receive SSI or would enter SSI in the absence of intervention. All five demonstrations are designed to help these individuals establish a significant career and be less dependent on SSDI and other benefits as adults than they would be under the status quo.

All five of the proposals are pertinent to the WIOA's provision that state VR agencies spend at least 15 percent of their Rehabilitation Services Administration (RSA) grants on in-school youth to support their transition to significant employment after graduation. The first proposal, VR Services for Transition-Age Youth, is for grants that RSA recently awarded to five states to develop and test innovative transition services, including some that will use randomized controlled trials for the testing aspect. Project SEARCH is a well-established public-private program that is attracting more attention because of WIOA, but has never undergone a rigorous impact evaluation; the proposal reflects an evaluability assessment and design project recently completed by Mathematica (Mamun et al. 2016). Pathways to Careers is a similar program that was developed by SourceAmerica and has several pilots in operation, but would require an infusion of support to be scaled up for the purposes of a formal test. For several years, Mathematica has been assisting SourceAmerica with its development of Pathways.

The Job Corps Expansion demonstration idea was inspired by findings from a new Mathematica analysis of the original Job Corps demonstration data, which revealed that impacts

for the relatively small share of participants with work-limiting medical conditions were larger than impacts for participants without those conditions; these impacts included a decrease in the amount of SSI benefits that participants received. The findings will be made public in the near future. Job Corps has become more accessible to participants with disabilities since the 1990s demonstration, but there may be practical ways to increase enrollment by young people with disabilities, including SSI youth as they approach the age of 18 and consequent SSI redetermination, as well as to improve the outcomes of those who are already enrolled.

The final proposal in this group, CareerACCESS, was developed by a group of advocacy organizations with technical assistance from other organizations, including Mathematica, over many years. The current support system for young adults with disabilities (ages 18 to 30) is fragmented. Under CareerACCESS, those who meet Social Security Administration (SSA) medical criteria and actively pursue a career and work toward economic independence at the age of 30 would be given an integrated benefit that encourages and supports their pursuit of a substantial career.

C. Pre-application interventions targeting both workers and youth

One pilot proposal targets both current workers and youth or young adults who have not yet entered the labor force. As described by Liebman and Smalligan (2013), this demonstration would give states incentives to increase labor force attachment and reduce the entry of youth into SSDI. The incentive payments would produce federal savings if they are smaller than the amount of the benefits saved. In responding to such an opportunity, states and their private sector collaborators could potentially adopt one or more—possibly many—of the other 20 pre- SSDI application innovations described here.

D. Diversion of SSDI applicants into alternative work-oriented support

We included two demonstrations that would target SSDI applicants awaiting decisions on their claims. The first, Transitional Benefits for a Subset of the SSDI Population, would offer temporary benefits and return-to-work services for applicants who currently meet SSDI eligibility criteria and whose conditions are expected to improve (Hildred et al. 2016). The second, Employment Support for the Transition to Retirement (ESTR) (Stapleton and Schimmel Hyde n.d.), targets older applicants, particularly those likely to be allowed on the basis of vocational factors. Implicitly, these proposals target workers in pre-SSDI application status, because some of them might be induced to apply for SSDI just to become eligible for these work-oriented benefits; that represents both a benefit for workers facing medical challenges and higher costs to pay for the new benefits.

E. Partial benefits for beneficiaries

In this category, we include SSA's Promoting Opportunity Demonstration (POD), which is still in the procurement process, for the sake of comprehensiveness. POD is a specific design for a partial benefit. We have included another line in the table to encompass other potential designs for partial benefits. We mention two specific designs, one proposed by Fichtner and Seligman (2016) and the other by Gokhale (2015). The final partial benefit is a variant of ESTR, which could potentially be tested in conjunction with a test of ESTR; essentially, current beneficiaries would be allowed to give up their current benefits in favor of ESTR benefits.

F. Demonstration and waiver authority

One, and often more than one, of the following federal agencies will need to be involved in any of the demonstrations in Table III.1: the Department of Labor (DOL), the Department of Health and Human Services (HHS), SSA, or the Department of Education (ED). Hence, we collected and reviewed readily available information about the relevant demonstration and waiver authorities for each; we have not, however, had the opportunity to interview agency administrators or other authorities about this information. What follows reflects our understanding of the relevant authorities for each of these four agencies and should be considered preliminary. Ultimately, it will be up to the Office of Management and Budget (OMB), agency leaders, and leaders of relevant congressional committees to decide whether any specific demonstration can be authorized under existing law and associated regulations. One demonstration would require support from the Committee on Purchase from People Who Are Blind or Severely Disabled (CPPWABSD), which has representation from DOL, ED, and several other agencies, but not from HHS and SSA.

Some of the demonstration proposals would focus on physicians, employers, or the general public and would not involve a direct interaction with workers, SSDI applicants, or beneficiaries. We have not investigated authorities for these types of demonstrations. Our sense is that the agencies most likely to sponsor such demonstrations have broad authority to conduct the outreach and communication efforts that these demonstrations would involve.

In the upcoming paragraphs, we describe the demonstration authorities of DOL, HHS, SSA, ED, and CPPWABSD.

1. Department of Labor

Title I of the Workforce Innovation and Opportunity Act (WIOA):

- **Youth.** Section 129 allows states to use allocated federal funds to conduct research and demonstrations on the issue of youth workforce investment, including demonstrations for (1) youth with disabilities who are in school and between the ages of 14 and 21 and (2) youth with disabilities who are not in school and are between the ages of 16 and 24, with the objective of increasing career readiness and entry into early-career positions. A wide array of services are allowable. It is not apparent that participants could be provided with cash or in-kind assistance to support themselves while they are participating in a demonstration program.
- **Adults.** Section 134 allows states to use allocated federal funds for "conducting research and demonstration projects related to meeting the employment and education needs of adults and dislocated workers." It is clear from the context that such projects could test innovative programs and strategies that are designed to better meet the workforce needs of employers, or to better serve individuals with barriers to employment. Although Section 134 does not specifically mention workers with disabilities or with medical problems or impairments, it is clear from other language in WIOA that such workers are to be included and accommodated by programs that deliver services authorized by WIOA.

- **Job Corps.** Section 156 gives the Secretary of Labor broad authority to conduct demonstrations involving Job Corps, including any waivers that might be needed for the purpose.

We also investigated DOL's ability to support demonstrations that would involve unemployment insurance (UI) because one proposal (COHE) includes a short-term cash assistance option—conditioned on developing and pursuing an acceptable return to work plan—that could be potentially be implemented as a new "medical" UI benefit. Our understanding had been that DOL did not have authority to conduct such demonstrations at this time. It appears that DOL had demonstration authority that might have been suitable under the Middle Class Tax Relief and Job Creation Act of 2012, but the Act expired in 2015, and two provisions might have precluded sponsoring a medical UI benefit. That Act authorized up to 10 state demonstrations, including waivers, to increase reemployment levels for UI recipients provided the demonstrations did not have a net cost for the state's UI trust fund. The proposed medical UI benefit might have a positive impact on UI cost; reductions in other expenses would not be credited to the UI trust fund unless there were other special provisions to reimburse the trust fund from SSDI trust fund savings or other sources. Demonstration of a medical UI benefit would also require a waiver to the provision that UI beneficiaries be able to work, and it is not clear whether the Act authorized such a waiver.

2. Department of Health and Human Services

HHS has substantial authorities to conduct demonstrations involving Medicare and Medicaid enrollees, including waiver authorities under which states can enroll individuals in Medicaid who would otherwise not be eligible. Services provided are limited to those that would serve the purposes of the two programs. Interventions that target pre-SSDI applicants would presumably fit within one of these authorities if the worker is already enrolled in Medicaid. It is unclear to us whether the Secretary of Health and Human Services could grant a Medicaid waiver that would create a new class of workers for the purposes of providing early intervention services.

We also note that the HHS National Pain Strategy, a response to the opioid epidemic, has components that incorporate some of the proposed interventions, at least in part, for broader population groups (see box). Hence, it would seem worthwhile to investigate opportunities to have HHS authorize demonstrations that focus on workers likely to experience significant, prolonged pain as the result of their medical condition.

Components of the HHS National Pain Strategy

- Developing methods and metrics to monitor and improve the prevention and management of pain
- Supporting the development of a system of patient-centered integrated pain management practices based on a biopsychosocial model of care that enables providers and patients to access the full spectrum of pain treatment options
- Taking steps to reduce barriers to pain care and improve the quality of pain care for vulnerable, stigmatized and underserved populations
- Increasing public awareness of pain, increasing patient knowledge of treatment options and risks, and helping to develop a better informed health care workforce with regard to pain management

Source: https://iprcc.nih.gov/National_Pain_Strategy/NPS_Main.htm

Section 1115 of the Social Security Act. The Secretary of Health and Human Services has broad authority to allow states to conduct Medicaid demonstrations for certain purposes, provided they are cost-neutral to the federal government and meet certain other conditions. It also appears that, for purposes of such demonstrations, the secretary may waive compliance with requirements of other programs, including SSDI and SSI, under Section 1115.

Section 1115A of the Social Security Act. The Center for Medicare and Medicaid Innovation has fairly broad authority to design and test innovative service delivery and payment models for Medicare, Medicaid, dual, and Children's Health Insurance Program (CHIP) enrollees, including the granting of broad waiver authority to the Secretary of Health and Human Services. There is no explicit provision to conduct demonstrations that target other populations, even if their goal is to slow or divert program entry.

Section 1915(c) of the Social Security Act. Under this provision, states may seek waivers for the provision of Medicaid home- and community-based services. The project goals are consistent with the goals of block grants under Section 2001; some states might be interested in using their grants for this purpose.

Health Insurance Portability and Accountability Act (HIPAA) regulations (45 CFR 164.512(i)(1)(i)). Many of the innovations involve sharing of health information about workers with parties that are not normally allowed to have access to the information without the express consent of the worker under HIPAA regulations: 45 CFR 164.512(i)(1)(i). For WC claimants, a provision of HIPAA allows treating physicians to share certain information with WC insurers and employers that could not be shared outside of WC. We anticipate that most demonstrations targeting workers would benefit if the Secretary of Health and Human Services provided a limited waiver of HIPAA, allowing the demonstration to operate under the rules applicable to WC; worker participants would need to consent to the provision of the waiver in order to enroll in the demonstration. HIPAA waivers require approval of the Privacy Board or an Institutional Review Board.

3. Social Security Administration

Title II of the Social Security Act, 42 USC 434. SSA has substantial authority to conduct demonstrations to test various methods for treating the work activity of SSDI beneficiaries. The commissioner may also expand the scope to "include any group of applicants for benefits under the program established under this title with impairments that reasonably may be presumed to be disabling for purposes of such demonstration project, and may limit any such demonstration project to any such group of applicants." A potentially important point for the purposes of early intervention is that the law does not exclude individuals who might only apply because of an opportunity to participate in a demonstration, or a detailed definition of "reasonably may be presumed to be disabling for purposes of such demonstration project." Hence, there is at least some ambiguity about whether a worker who has not yet applied for SSDI benefits, but who has stopped working because of a medical condition that, with reasonable probability, could lead to an SSDI award, could be recruited into a demonstration and become an SSDI applicant *pro forma* for purposes of meeting this requirement. We assume that the commissioner, OMB, and ultimately the congressional committees with jurisdiction over SSDI would need to concur that such a demonstration is an appropriate use of SSDI demonstration authority. There is no requirement for budget or Trust Fund neutrality. The types of interventions permitted under this authority are not unlimited, but do span a wide range of approaches, including approaches that would be applicable to workers before application, as well as to applicants and beneficiaries (see box).

Types of SSDI Interventions Authorized under Title II of the Social Security Act

(A) various alternative methods of treating the work activity of individuals entitled to disability insurance benefits under section 223 or to monthly insurance benefits under section 202 based on such individual's disability (as defined in section 223(d)), including such methods as a reduction in benefits based on earnings, designed to encourage the return to work of such individuals;

(B) altering other limitations and conditions applicable to such individuals (including lengthening the trial work period (as defined in section 222(c)), altering the 24-month waiting period for hospital insurance benefits under section 226, altering the manner in which the program under this title is administered, earlier referral of such individuals for rehabilitation, and greater use of employers and others to develop, perform, and otherwise stimulate new forms of rehabilitation); and

(C) implementing sliding scale benefit offsets using variations in—

(i) the amount of the offset as a proportion of earned income;

(ii) the duration of the offset period; and

(iii) the method of determining the amount of income earned by such individuals, to the end that savings will accrue to the Trust Funds, or to otherwise promote the objectives or facilitate the administration of this title."

Section 1115 of the Social Security Act. Parallel with the ability of the Secretary of Health and Human Services to authorize Medicaid demonstrations under this provision, the commissioner of SSA has the ability to authorize state support and waivers for state demonstrations involving SSI recipients. The provision includes the authority of waiving SSDI (Title II) provisions. The intent of the latter is likely to address situations in which SSI beneficiaries also qualify for SSDI.

4. Education

WIOA Rehabilitation Act (29 USC 16, Subchapter III). This subchapter gives the Secretary of Education broad authority to conduct demonstrations to improve provision of

rehabilitation services or other authorized services, or to improve the provision of other services that further the purposes of the Rehabilitation Act.

5. CPPWABSD

Javits-Wagner-O'Day Act (41 USC 46): Under this Act, the CPPWABSD provides oversight to a program under which private contractors who employ a large percentage of workers with significant disabilities have special status in federal procurements for certain types of products and services. AbilityOne and the National Industries for the Blind, two private, nonprofit organizations, administer the program under the oversight of CPPWABSD. AbilityOne has led the effort to develop and conduct proof-of-concept tests for the Pathways to Careers program, with limited support from foundations. It is our understanding that the Act is the legal authority for the program.

Table III.1. Summary of current demonstration ideas

Demonstration proposal	Target population	Age range	Application status	Intervention
Broad information campaign	General population	All ages	Pre-application	Population-wide intervention to change knowledge of and beliefs about disability and job retention among general public and physicians (Contreary and Perez-Johnson 2016).
Multi-party dialogues	Workers on temporary disability leave from work	Working age	Pre-application	Bring benefits representative, worker, medical proxy, and employer together to discuss the worker's ability to remain in his or her job or eventually return to some other type of work (Contreary and Perez-Johnson 2016).
Job retention coach	Workers experiencing onset of medical condition	Working age	Pre-application	Provide sessions with coach or advocate whose goal is to procure best outcome for worker—return to work, find new work, or apply for disability benefits. (Contreary and Perez-Johnson 2016).
Financial counseling	Workers experiencing onset of medical condition	Working age	Pre-application	Compare and advise on likely financial outcomes if worker stays at work or goes on long-term disability benefits. Could be a standardized tool (for example, online or spreadsheet), and could be delivered as part of a coaching session (Contreary and Perez-Johnson 2016).
Commitment device	STD claimants	Working age	Pre-application	Worker develops a return-to-work plan and schedule (possibly with physician or coach), and receives a payment if worker meets the stipulated milestones. Plan could be broken into smaller, more manageable steps (Contreary and Perez-Johnson 2016).
Bonus payments for return to work	STD claimants	Working age	Pre-application	Provide retention bonus or partial payments to individuals who (1) return to work by a specific date, (2) stay at or return to work early with a reduced schedule, or (3) volunteer (rather than stay at home) (Contreary and Perez-Johnson 2016).
Physician education	Physicians	n.a.	Pre-application	Multi-component intervention designed to improve physician-worker interactions with the onset of potential work-limiting conditions. Could include: (1) information about how physicians drive patient beliefs, (2) information on long-term costs of not working for patient, (3) primer on framing information and how it influences patient decision making, (4) guidelines about time off for common diagnoses to help physicians formulate better recommendations, (5) protocol for discussions about taking time off work for medical problems, including when to suggest referral to other specialists. Could be provided as a letter/brochure, educational campaign, or direct training (Contreary and Perez-Johnson 2016).
EHR-based initiatives	Physicians	n.a.	Pre-application	The EHR system would show evidence-based guidelines for treatment and time off work in when a physician enters specific diagnosis codes. It does not have to be real-time; could be a reminder to physicians not to extend days off work after initial visit or to refer patient to disability/rehabilitation specialist (Contreary and Perez-Johnson 2016).
Employment as quality metric	Physicians	n.a.	Pre-application	Include employment as quality metric in pay-for-quality provider/physician payment schemes (for example, in Accountable Care Organizations) (Contreary and Perez-Johnson 2016).
Case coordination services modeled after case services provided by COHEs in Washington State	Workers with medical conditions that are not compensable under Workers' Compensation	Working age	Pre-application	Expand a successful case coordination system developed for WC claimants from employers covered by the public WC system to the same worker population when they experience conditions that are not compensable under WC (Stapleton and Christian 2016). Health insurers and state programs would cover many services, and health insurers could be asked to cover the new services because of the potential for medical cost savings

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TABLE III.1 (CONTINUED)

Demonstration proposal	Target population	Age range	Application status	Intervention
Partial return-to-work benefits	STDI claimants	working age	Pre-application	Allow claimants to collect partial STD payments when they return to work on a part-time basis (Ben-Shalom 2016).
Employment subsidies	Employers	n.a.	Pre-application	Reduce employers' costs stemming from reductions in worker productivity.
Accommodation subsidies	Employers	n.a.	Pre-application	Reduce employers' costs of providing the accommodations that can help restore a worker's productivity (Ben-Shalom 2016).
Central accommodation funds	Employers	n.a.	Pre-application	Alleviate managers' concerns about the cost implications of providing accommodations to their specific business unit while the funds allocated for such purposes are centralized (Ben-Shalom 2016).
Training and technical assistance	Workers, employers, and physicians	n.a.	Pre-application	Educate workers, employers, and physicians; help them implement best return-to-work practices (Ben-Shalom 2016).
Expand existing capabilities of state VR agencies	Employers and physicians	n.a.	Pre-application	Conduct outreach to employers, physicians, and other health care providers to increase referrals to VR retention services (Ben-Shalom 2016).
Health and Work Service	Workers experiencing onset of medical condition	Working age	Pre-application	Service that responds immediately to deliver services to prevent secondary work disability when workers have new impairments that impact their work. Includes evaluation, screening, developing a plan for RTW, and coordinating services (Christian, Wickizer, and Burton 2016).
Employment/ Eligibility Service System (EES)	Workers	Working age	Pre-application	Establish an EES that will (1) conduct effective outreach to all workers in the population, (2) identify and interact in a timely way with workers who experience a major medical event, (3) conduct triage to assess whether immediate SSDI benefits, work support, or no assistance are appropriate, (4) design and manage individualized work supports to workers deemed capable of working with available support, (5) expedite SSDI award for those unable to work with available support, (6) award SSDI benefits after unsuccessful work attempts, (7) end work supports for those making no attempt to continue work (Stapleton, Ben-Shalom, and Mann).
Early employment services at Community Mental Health Centers (CMHCs)	Young adults experiencing a significant psychiatric condition for first time	Working age, primarily young adults	Pre-application	CMHCs would be recruited to conduct outreach to young workers and postsecondary students who are experiencing their first episode of a significant mental illness. Similar to successful interventions offered under Recovery After an Initial Schizophrenia Episode (RAISE) (Kane et al. 2015), but for a broader set of significant psychiatric diagnoses and with greater focus on employment outcomes. Also similar to SSA's Early Intervention Mental Health Demonstration, except it takes place before SSDI application and includes people other than those denied at initial determination.
Employer Incentive to Reduce SSDI Entry	Employers and their employees	Working age	Pre-application	Employers would be offered a payroll tax discount if they provided private disability insurance under which the insurer/employer was responsible for 100 percent of benefits in the first 24 months after disability onset, with the reduction based on the reduction in SSDI benefits paid to their former workers (Liebman and Smalligan 2013).
VR services for transition-age youth	Youth/young adults (including SSI)	In-school youth	Pre-application	In October 2010, RSA awarded grants to 5 state VR agencies to implement and test (including RCTs in at least two states) services for special education students that start in high school and lead to careers and integrated employment; based on evidence-based learning models involving work experience. See http://www.ed.gov/news/press-releases/five-states-receive-39-million-grants-prepare-students-disabilities-college-employment?utm_content=&utm_medium=email&utm_name=&utm_source=govdelivery&utm_term=

TABLE III.1 (CONTINUED)

Demonstration proposal	Target population	Age range	Application status	Intervention
Project SEARCH	Youth/young adults (including SSI)	18–22	Pre-application	Program for the high school-to-work transition that integrates employers and businesses with other educational and community rehabilitation service providers to engage youth with disabilities in paid work experiences. Collaboration organized by Project SEARCH, local education agency, state VR agency, local community rehabilitation providers, and a host business. Has promising outcomes, but has never had rigorous income evaluation. Evaluability assessment and preliminary designs in Mamun, Timmons, and Stapleton (2016). See http://www.projectsearch.us/Home.aspx.
Pathways to Careers	Youth and young adults with developmental disabilities, mostly on SSI	Late teens, 20s	Pre-application	Community rehabilitation provider works with local businesses, schools, and state agencies to provide intensive internships; similar to Project SEARCH in many respects, but does not rely on large employers. Effort led by SourceAmerica. See http://www.sourceamerica.org/pathways-careers and https://www.mathematica-mpr.com/events/csdp-aligning-community-practices.
Job Corps Expansion	Youth with significant medical conditions or impairments	16–24 (to be extended to 28)	Pre-application	Job Corps is a DOL-sponsored, state-run training program Offers intensive, often in-residence training to disadvantaged youth, but not specifically to youth with significant impairments or medical challenges. Shown to have substantial positive impacts in a large RCT in 1990s. Recent Mathematica analysis of demonstration subjects with health-related work limitations found larger employment and earnings impacts for youth with medical challenges than for other youth, and reduced SSI benefit receipt over 4 years (report not yet released). Today, state programs must offer accommodations to qualified participants with disabilities. There is potential for expansion of enrollment of youth with disabilities on a demonstration basis. May also be options for non-experimental or quasi-experimental analysis of past program changes to support participation and success by students with disabilities.
CareerACCESS	Young adults meeting SSI eligibility criteria at enrollment	18–30	Pre-application	Would replace current disability support system for people ages 18 to 30 who are pursuing a career that will lead to substantial financial independence by age 30 with a system that includes: (1) a career coach, (2) consumer-directed, integrated health, home- and community-based. and employment services, and (3) a stipend at the SSI level, not subject to reduction for earnings before age 30 unless earnings reach a threshold that is well above the poverty level. Continued enrollment requires continued progress toward the age 30 goals. Model developed collaboratively by advocacy organizations and others. VT, MI, MA and perhaps other states have significant interest in testing. See http://www.ourcareeraccess.org/.
State Incentive to Reduce SSDI and SSI Entry	State governments and residents	Working age and youth	Pre-application	States would receive incentive funding if they demonstrate success at improving outcomes and reducing participation in SSDI and SSI (Mann and Stapleton 2011, Liebman and Smalligan 2013). States and their private sector collaborators could potentially pursue many of the interventions described above under this approach
Transitional Benefits for a Subset of the SSDI Population	Applicants with conditions that are amenable to return to work within 2–3 years, with support services	Working age	Post-application, waiting	State/SSA adjudicators would identify applicants who meet current criteria and whose conditions are expected to improve. They would be offer a transitional benefit for 2–3 years and referred to counseling and employment services under a modified Ticket to Work program (Hildred, Mazerski, Krent and Christian). The proposal is similar in many respects to a proposal targeted at the same population by Liebman and Smalligan (2013).

TABLE III.1 (CONTINUED)

Demonstration proposal	Target population	Age range	Application status	Intervention
Employment Support for the Transition to Retirement (ESTR)	Applicants, primarily those who would qualify on the basis of vocational factors	50 and older	Post-application, waiting	More generous earned income tax credit for workers age 50 and older who have significant medical conditions. Also includes a small monthly allowance for extra costs due to medical condition, tailored to the worker's circumstances—potentially a variant of the cash and counseling benefits offered by many state Medicaid programs (http://www.bc.edu/schools/gssw/nrcpds/cash_and_counseling.html.) Health plan enrollment is required (Stapleton and Schimmel 2016). Could be a voluntary alternative for all applicants meeting minimal medical criteria, or voluntary for some and mandatory for some of those who currently would only be allowed under vocational factors. Another option: waive 5-month SSDI waiting period.
Promoting Opportunity Demonstration (POD)	SSDI beneficiaries	Working age	Beneficiary	As per the Bipartisan Budget Act of 2015. Benefit offset of $1 for every $2 earned above a threshold amount equal to the Trial Work Period minimum. Once zero benefits are reached, benefits may be terminated. States and contractor lead effort to adjust benefits on a monthly basis, with SSA oversight and final authority.
Partial SSDI benefit	SSDI awardees and current beneficiaries	Working age	Beneficiary	Under one proposal, new and current beneficiaries would be offered a benefit at 50 percent of their current benefit, with no limitation on earnings, provided they are below a cap that is well above the SGA amount (for example, $3,500/month). Participants could stay attached to SSDI indefinitely, would be subject to Continuing Disability Reviews on a regular basis, and could be switched back to benefits under current law, or have their benefits suspended or terminated as a result (Fichtner and Seligman 2016). Under another proposal, beneficiaries would be offered a generalized benefit offset that combines the features of an earned income tax credit with a fixed reduction in benefits for each dollar earned above a low disregard.
ESTR II	SSDI beneficiaries	50 and older	Beneficiary	Essentially the same as for ESTR, but SSDI suspended. Option: if enrolled in Medicare, beneficiary must enroll in a health plan at work or under a state exchange; Medicare becomes second payer.

Note: Application status is for SSDI, not SSI. Some target populations include SSI children and young adults, before they have entered SSDI.
n.a. = not applicable.

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APPENDIX A:

ANNOTATED BIBLIOGRAPHY

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I. STAY-AT-WORK/RETURN-TO-WORK POLICY

Bardos, Maura, Hannah Burak, and Yonatan Ben-Shalom. "Assessing the Costs and Benefits of Return-to-Work Programs." Submitted to the U.S. Department of Labor, Office of Disability Employment Policy. Washington, DC: Mathematica Policy Research, 2015.

This report compares the cost and benefits of implementing an RTW program in the private sector. More specifically, it compares the costs and benefits of retaining an employee who experiences disability onset to the costs and benefits of permanently losing a valued, trained employee and incurring the expense and time of recruiting and developing a replacement. The findings suggest that the worker with a disability, the taxpayers, and society as a whole stand to gain much from RTW investments. The employer, however, may incur substantial net costs depending on the circumstances.

Ben-Shalom, Yonatan. "Steps States Can Take to Help Workers Keep Their Jobs After Injury, Illness, or Disability." Washington, DC: Mathematica Policy Research, September 2016.

This paper identifies promising early-intervention options for states interested in helping workers keep their jobs after injury, illness, or disability. The paper shows that states can take a variety of steps to improve the well-being of affected workers and enhance state government's bottom line. State workforce, vocational rehabilitation, workers' compensation, health, and other agencies have the tools to promote better outcomes. The most appropriate tools vary from state to state depending on agencies' capabilities and structure and the program-specific features in any given state.

Ben-Shalom, Yonatan, and Hannah Burak. "The Case for Public Investment in Stay-at-Work/Return-to-Work Programs." Washington, DC: Mathematica Policy Research, March 2016.

This issue brief compares the costs and benefits of implementing an early-intervention SAW/RTW program at the state level to reveal how SAW/RTW programs could affect the bottom line of federal and state governments. The analysis finds that state governments could gain substantial net benefits from implementing successful early-intervention SAW/RTW programs. Even larger net benefits would accrue to the federal government and affected workers.

Christian, Jennifer. "Establishing Accountability to Reduce Job Loss After Injury or Illness." Washington, DC: Mathematica Policy Research, October 2015.

This paper presents actionable policy recommendations for keeping more people at work by (1) establishing the preservation or restoration of work and full participation in life as key outcomes and important indicators of the value delivered by medical care and other health-related services; (2) making three key stakeholders who directly influence those outcomes more accountable: health care delivery organizations, employers, and insurers; and (3) designing and implementing an array of strategies to give the accountability real teeth, disrupt the current status quo, and deliver transformational social change.

Contreary, Kara, and Irma Perez-Johnson. "Behavioral Interventions to Promote Job Retention After Injury or Illness." Washington, DC: Mathematica Policy Research, 2016.

This paper identifies promising interventions that harness behavioral insights to promote job retention among workers who experience the onset of a potentially work-limiting medical condition. The paper focuses on behavioral interventions that would not require changes in legislation or public benefit policies, and would not meaningfully change the set of options available for any stakeholders.

Franche, Renee-Louise, Raymond Baril, William Shaw, Michael Nicholas, and Patrick Loisel. "Workplace-Based Return-to-Work Interventions: Optimizing the Role of Stakeholders in Implementation and Research." *Journal of Occupational Rehabilitation*, vol. 15, no. 4, December 2005, pp. 525–542.

A systematic review was conducted to review the effectiveness of workplace-based RTW interventions. Recommendations for future research include developing methods for engaging stakeholders, determining the optimal level and timing of stakeholder involvement, expanding RTW research to more diverse work settings, and developing RTW interventions that reflect all stakeholders' interests.

Franche, R.L., K. Cullen, J. Clarke, E. Irvin, S. Sinclair, and J. Frank. "Workplace-Based Return-to-Work Interventions—A Systematic Review of the Quantitative Literature." *Journal of Occupational Rehabilitation*, vol. 15, no. 4, December 2005, pp. 607–31.

This systematic review explores the effectiveness of workplace-based RTW interventions. Of a total of 4,124 papers identified by the search, 10 studies were of sufficient quality to be included in the review. There was strong evidence that the duration of work disability is significantly reduced by offers to make accommodations for the worker's disability and by contact between the health care provider and workplace, and there is moderate evidence that duration of work disability is reduced by interventions that include early contact with worker by workplace, site visits to check the ergonomics of the work environment, and presence of a RTW coordinator. For these five intervention components, there was moderate evidence that they reduce costs associated with work disability duration. Evidence for sustainability of these effects was insufficient or limited. Evidence on the impact of supernumerary replacements was insufficient. Evidence levels on the impact of the intervention components on quality of life were insufficient or mixed.

Franklin, Gary M., Thomas M. Wickizer, Norma Coe, and Deborah Fulton-Kehoe. "Workers' Compensation: Poor Quality Health Care and the Growing Disability Problem in the United States." *American Journal of Industrial Medicine,* vol. 58, no. 3, 2015, pp. 245–251.

This article describes how, over the past 30 years, there has been an increase in the number of working age citizens who have permanently left the workforce, straining both federal and state disability systems. Almost one-third of the disabilities responsible for these workforce exits are musculoskeletal disorders, and three of the top five diagnoses associated with the longest periods of disability are back, neck, and other musculoskeletal disorders. The article argues that the failure of federal and state workers' compensation systems to provide effective health care to treat non-catastrophic injuries has been largely overlooked as a principal source of permanent disablement and a corresponding decline in labor force participation. Innovations in health care delivery under workers compensation and in the use of evidence-based coverage methods such as prospective utilization review are effective secondary prevention efforts that, if adopted more widely, could substantially prevent avoidable disability and provide more financial stability for disability safety net programs.

Hoefsmit, N., I. Houkes, and F.J. Nijhuis. "Intervention Characteristics that Facilitate Return to Work After Sickness Absence: A Systematic Literature Review." *Journal of Occupational Rehabilitation*, vol. 22, no. 4, 2012, pp. 462–477.

This paper identifies characteristics of RTW interventions that facilitate RTW. Early and multidisciplinary intervention and time-contingent, activating interventions appear most effective in supporting RTW.

Hollenbeck, Kevin. "Promoting Retention or Reemployment of Workers After a Significant Injury or Illness." Washington, DC: Mathematica Policy Research, October 2015.

This paper suggests policies or practices that might help employers retain more workers who experience injury or illness or cause employers to hire more workers who were separated from their jobs. The paper (1) provides evidence about the size of the target population and the potential economic benefits of improving job retention and reemployment among the members of that population; (2) briefly reviews current policies and practices; and (3) presents ideas for policies that could improve retention and reemployment, respectively. The paper concludes with specific recommendations for incorporating these ideas in federal efforts to promote retention and reemployment.

Institute for Research on Labor and Employment, University of California, Berkeley. "Helping Injured Employees Return to Work: Practical Guidance Under Workers' Compensation and Disability Rights Laws in California." Berkeley, CA: California Commission on Health and Safety and Workers' Compensation, February 2010. Available at http://www.dir.ca.gov/chswc/Reports/2010/HandbookRTW_2010.pdf. Accessed June 8, 2016.

This handbook provides guidance for small business employers. It describes how to establish and implement an effective RTW program, coordinate the RTW process with the injured employee's workers' compensation benefits, and ultimately strengthen the work environment and overall health of the company or organization. For employees of small businesses, the handbook describes the goals and benefits of returning to work, everyone's roles and responsibilities, and what can be expected in the process. Larger employers and their employees may also find this handbook useful.

Markussen, Simen, Knut Roed, and Ragnhild C. Schreiner. "Can Compulsory Dialogues Nudge Sick-Listed Workers Back to Work?" Institute for the Study of Labor (IZA) Discussion Paper. Bonn, Germany: IZA, 2015.

This paper evaluates the impacts of a compulsory dialogue meeting for long-term sick-listed workers in Norway. The meeting is organized by the local social security administration after workers have been away from their job for about six months, and its purpose is to bring together the absentee, the employer, and the family physician to discuss whether arrangements can be made to facilitate partial or full resumption of work. A causal analysis based on random-assignment-like geographical variation in the meeting propensity finds that attendance at the meetings reduces the length of absence considerably, both through a notification and an attendance effect. The meetings also reduce the risk of premature labor market exit.

McLaren, Christopher F., Robert T. Reville, and Seth A. Seabury. "How Effective are Employer Return to Work Programs?" Santa Monica, CA: RAND (2010).

This paper analyzes the effectiveness of the return-to-work programs of 40 large, self-insured employers. Discrete-time hazard estimates suggest that the workers in such a program return approximately 1.4 times sooner compared to workers injured at a firm without a program. This corresponds to a reduction of between 3–4 weeks in the median duration of time before return to work for all workers in the study.

Muijzer, Anna, Johan W. Groothoff, Wout E.L. de Boer, Jan H.B. Geertzen, and Sandra Brouwer. "The Assessment of Efforts to Return to Work in the European Union." *The European Journal of Public Health*, February 8, 2010.

This study evaluates how return-to-work efforts are assessed in EU countries. RTW efforts are assessed in half of the participating European countries, revealing both similarities and differences. This study may facilitate the gathering and exchange of knowledge and experience between countries on the assessment of RTW efforts.

Stapleton, David, Robert Burns, Benjamin Doornink, Mary Harris, Robert Anfield, Winthrop Cashdollar, Brian Gifford, and Kevin Ufier. "Targeting Early Intervention to Workers Who Need Help to Stay in the Labor Force." Submitted to the U.S. Department of Labor, Office of Disability Employment Policy. Washington, DC: Mathematica Policy Research, 2015.

This paper synthesizes available information on groups that should be included or excluded from the target population for policies or programs designed to expand access to evidence-based early intervention (EBEI) services. The paper also considers the data, tools, and organizational capabilities that are needed to identify members of the target population, match EBEI services to their needs, and identify any need for change in the EBEI services that are offered. The paper concludes with recommendations for incorporating this information in efforts by the federal government and states to increase access to EBEI.

Sullivan, Michael J.L., Michael Feuerstein, Robert Gatchel, Steven J. Linton, and Glenn Pransky. "Integrating Psychosocial and Behavioral Interventions to Achieve Optimal Rehabilitation Outcomes." *Journal of Occupational Rehabilitation*, vol. 15, no. 4, 2005, pp. 475–489.

This study identifies different psychosocial interventions designed to prevent prolonged work disability. It also identifis future research directions to promote these kinds of interventions. The results suggest that effective secondary prevention of work disability will require research to develop cost-effective, multipronged approaches that concurrently target psychosocial risk factors in both the worker and the workplace.

Williams-Whitt, Kelly, Ute Bultmann, Benjamin Amick III, Fehmidah Munir, Torill H. Tveito, and Johannes R. Anema. "Workplace Interventions to Prevent Disability from Both the Scientific and Practice Perspectives: A Comparison of Scientific Literature, Grey Literature and Stakeholder Observations." *Journal of Occupational Rehabilitation*. doi: 10.1007/s10926-016-9664-z.

This article summarizes existing research on workplace interventions to prevent disability, relates the interventions to employers' disability management practices, and recommends future research priorities. Evidence from randomized trials and other research designs has shown general support for job modification, RTW coordination, and organizational support, but evidence is still lacking for interventions at a more granular level. Future research might better target employer practices by tying interventions to positive workplace influences and determinants, by developing more participatory interventions and research designs, and by designing interventions that address factors of organizational change.

Wynne, Richard, and Donal McAnaney. *Employment and Disability: Back to Work Strategies.* Dublin, Ireland: European Foundation for the Improvement of Living and Working Conditions, 2004.

This report presents information on relevant RTW strategies in seven EU member states. It proposes a new model for understanding the nature of the problem, develops an assessment tool for new initiatives in the area, and makes recommendations on how best to promote social inclusion for people with chronic illnesses.

Tompa, E., C. de Oliveira, R. Dolinschi, and E. Irvin. "A Systematic Review of Disability Management Interventions with Economic Evaluations." *Journal of Occupational Rehabilitation,* vol. 18, no.1, March 2008, pp. 16–26. doi: 10.1007/s10926-007-9116-x.

This article reviews disability management interventions to determine their usefulness. The review found credible evidence supporting the financial benefits of disability management interventions for one industry cluster and for several intervention components and features.

Waddell, Gordon, and A. Kim Burton. "Is Work Good for Your Health and Well-Being?" Report commissioned by UK Department for Work and Pensions. London, UK: The Stationary Office, 2006.

This review collates and evaluates the evidence on the question, "Is work good for your health and well-being?" This review evaluated the scientific evidence on the relationship between work, health, and well-being and assessed the complex set of work and health issues. The review found a strong evidence base showing that work is generally good for physical and mental health and well-being.

II. CURRENT STATE PROGRAMS

Alabama Department of Rehabilitation Services. "RAVE: Retaining a Valued Employee—Managing Disability in the Workplace." Montgomery, AL: Alabama Department of Rehabilitation Services, 2012. Available at www.rehab.alabama.gov/docs/business-relations-program/ravebro0211forweb.pdf. Accessed May 17, 2016.

This brochure summarizes the Alabama Department of Rehabilitation Services' Retaining a Valued Employee (RAVE) program. The brochure briefly describes how RAVE can help businesses cut costs while retaining employees with physical or mental impairments.

Arkansas Rehabilitation Services. "Stay at Work/Return to Work (SAW/RTW)." Available at http://ace.arkansas.gov/arRehabServices/Documents/Stay%20at%20Work%20Return%20to%20Work.pdf. Accessed May 17, 2016.

This document from Arkansas Rehabilitation Services describes the objective of the state's SAW/RTW program and outlines the expertise and duties of SAW/RTW program staff.

Bruns, Daniel, Kathryn Mueller, and Pamela A. Warren. "Biopsychosocial Law, Health Care Reform, and the Control of Medical Inflation in Colorado." *Rehabilitation Psychology*, vol. 57, no. 2, 2012, p. 81.

The 1992 Colorado workers' compensation reform bill led to the creation of what are known as "biopsychosocial laws." These laws mandated the use of treatment guidelines that advocated a biopsychosocial model of rehabilitation for patients with injury or chronic pain, and aspired to use a "best practice" approach to controlling costs. This study examines the financial impact of this health care reform process, and tests the hypothesis that this approach can be an effective strategy to contain costs while providing good care. The results show that in the 15 years following the implementation of the reform, the inflation of medical costs in Colorado workers' compensation was only one-third of the national average, saving an estimated $859 million on patients injured in 2007 alone.

Ohio Bureau of Workers' Compensation. "Transitional Work Bonus." Available at https://www.bwc.ohio.gov/employer/programs/TransitionalWork/TWBonusDescription.asp. Accessed June 8, 2016.

This webpage describes the Ohio Bureau of Workers' Compensation's transitional work bonus program. Under the program, injured employees can resume their work functions with minimal time off, and employers are better prepared to place an injured employee in a job or give the employee work tasks consistent with any medical or physical restrictions. Employers with an approved transitional work plan may receive a back-end bonus for using the plan to return injured workers to work. The potential incentive is a 10-percent bonus for using an established transitional work program, which is applicable to claims with dates of injury in that bonus year of program participation.

Ohio Bureau of Workers' Compensation. "Transitional Work Grants." Available at https://www.bwc.ohio.gov/employer/programs/TransitionalWork/TWGrantsDescription.asp. Accessed June 8, 2016.

This webpage describes the Ohio Bureau of Workers' Compensation's transitional work grants program. The program is designed to help employers develop a transitional work program that is right for every business and every employee.

Oregon Workers' Compensation Division. "Employer-at-Injury Program." Available at http://wcd.oregon.gov/rtw/Pages/eaip.aspx. Accessed June 8, 2016.

This webpage describes the Oregon Workers' Compensation Division's Employer-at-Injury Program. The program encourages the early return to work of injured workers by helping lower an employer's early return-to-work costs and claim costs. The insurer helps the employer develop transitional work for the employee and helps the employer request reimbursement for its costs.

Oregon Workers' Compensation Division. "Preferred Worker Program." Available at http://wcd.oregon.gov/rtw/Pages/pwp.aspx. Accessed June 8, 2016.

This webpage describes the Oregon Workers' Compensation Division's Preferred Worker Program. The program helps qualified Oregon workers who have permanent disabilities from on-the-job injuries and are not able to return to their regular employment because of those injuries. Preferred workers can offer Oregon employers a chance to save money by hiring them.

Rhode Island Department of Labor and Training. "Temporary Disability Insurance Task Force Report." Cranston, RI: Rhode Island Department of Labor and Training, September 2005.

This report identifies strengths and weaknesses of the Temporary Disability Insurance (TDI) system in Rhode Island. This comprehensive, independent research project was initiated in early 2004 with the Schmidt Labor Research Center at the University of Rhode Island. The research analyzed 10 years of TDI data (1993–2002) and included a data sample of over 600,000 claims. The focus of the study was to identify trends in key areas of the program—customer population, usage, most common diagnoses, duration, and how Rhode Island TDI compares with similar programs in other states. The study was presented to the Task Force in October 2004. It found that the Rhode Island TDI program overall is an effective safety net and a model program. It revealed some areas that warranted further study.

Stapleton, David, and Jennifer Christian. "Helping Workers Who Develop Medical Problems Stay Employed: Expanding Washington's COHE Program Beyond Workers' Compensation." Washington, DC: Mathematica Policy Research, September 2016.

This paper discusses adapting the Centers for Occupational Health and Education (COHE) program to make it available to workers with medical conditions that were not caused by work. Pilot testing that began in the early 2000s has demonstrated that COHE substantially reduces lost work time and long-term disability for workers' compensation (WC) claimants while more than paying for itself through lower WC expenditures. This paper explores whether and how Washington's COHE program could be adapted in ways that would lead to similar beneficial effects for workers in the state who have non-compensable conditions.

Washington State Department of Labor & Industries. "The Complete Stay at Work Guide for Employers." Publication F243-005-000. Olympia, WA: Washington State Department of Labor & Industries, 2015.

This guide from the Washington State Department of Labor & Industries summarizes the state's Stay at Work program. The program is designed to encourage Washington employers to find light-duty or transitional jobs for workers recovering from on-the-job injuries.

Wickizer, Thomas M., Gary M. Franklin, Deborah Fulton-Keh, Jeremy Gluck, Robert D. Mootz, Terri Smith-Weller, and Roy Pledger-Brockway "Improving Quality, Preventing Disability and Reducing Costs in Workers' Compensation Healthcare: A Population-Based Intervention Study." *Medical Care*, vol. 49, no. 12, 2011, pp. 1105–1111.

This article evaluates the effect of a quality improvement intervention that gave providers financial incentives to encourage adoption of best practices, coupled with organizational support and care management activities. The intervention sought to reduce work disability for patients treated within the Washington State workers' compensation system. Financial incentives, coupled with care management support, can improve outcomes, prevent work disability, and reduce costs for patients receiving occupational health care. Owing to its important capacity to help prevent work disability, workers' compensation health care may be especially fertile ground for continued innovation in improving quality.

III. LABOR MARKET PROGRAMS

Angelov, Nikolay, and Marcus Eliason. "The Effects of Targeted Labour Market Programs for Job Seekers with Occupational Disabilities." Institute for Evaluation of Labour Market and Education Policy, Working Paper 2014:27. Uppsala, Sweden: IFAU, 2014.

This study estimates the effects of three targeted labor market programs (LMPs) on the labor market outcomes of occupationally disabled job seekers. Using propensity score matching, the authors estimate the average treatment effect on the treated of wage subsidies, sheltered public employment, and employment at Samhall, a Swedish state-owned company whose aim is to provide employment for persons with disabilities. The control group consists of individuals who are eligible for the targeted LMPs but have not yet received treatment. The results show large positive effects of all LMPs on labor income, disposable income, and employment, and the effects are relatively persistent.

Card, David, Jochen Kluve, and Andrea Weber. "What Works? A Meta-Analysis of Recent Active Labor Market Program Evaluations." Working Paper 21431. Cambridge, MA: National Bureau of Economic Research, 2015.

This working paper presents a meta-analysis of impact estimates from over 200 recent econometric evaluations of active labor market programs around the world. The paper classifies estimates by program type and participant group, and distinguishes between three different post-program time horizons. The paper concludes that: (1) average impacts are close to zero in the short run, but become more positive 2–3 years after completion of the program; (2) the time profile of impacts varies by the type of program, with larger gains for programs that emphasize human capital accumulation; (3) there is systematic heterogeneity across participant groups, with larger impacts for females and participants who enter from long-term unemployment; (4) active labor market programs are more likely to show positive impacts in a recession.

Decker, Paul, and Irma Perez-Johnson. "What Can We Expect Under Personal Reemployment Accounts? Predictions and Procedures." Final report submitted to the U.S. Department of Labor. Princeton, NJ: Mathematica Policy Research, January 2004.

This report draws on a variety of sources to address issues related to implementation of Personal Reemployment Accounts (PRAs). Sources include the unemployment insurance (UI) reemployment bonus demonstrations, research on Worker Profiling and Reemployment Services systems, the ongoing Individual Training Account Experiment, and more general studies of UI recipients and unemployed workers. The report's objective is to provide the Department of Labor, states, and local areas with guidance on options and important considerations in implementing the provisions of the PRA plan.

Hamersma, Sarah. "The Effects of an Employer Subsidy on Employment Outcomes: A Study of the Work Opportunity and Welfare-to-Work Tax Credits." *Journal of Policy Analysis and Management*, vol. 27, no. 3, summer 2008, pp. 498–520.

This paper develops a simple dynamic search model of employment subsidies and then tests the model's implications for the employment outcomes of workers subsidized through the Work Opportunity Tax Credit (WOTC) and Welfare-to-Work Tax Credit (WtW). The model predicts that subsidized workers will have higher rates of employment and higher wages than equally productive unsubsidized workers, and it highlights some possible effects of the subsidy on job tenure. The paper finds that the WOTC and WtW have limited effects on the labor market outcomes of the disadvantaged population.

Kirby, Gretchen, Margaret Sullivan, Elizabeth Potamites, Jackie Kauff, Elizabeth Clary, and Charles McGlew. "Responses to Personal Reemployment Accounts (PRAs): Findings from the Demonstration States." Final report submitted to the U.S. Department of Labor, Employment and Training Administration. Washington, DC: Mathematica Policy Research, June 2008.

In 2004, the Department of Labor's Employment and Training Administration (ETA) launched the PRA demonstration project to examine PRA's strategy of fostering good employment outcomes for UI recipients. This final evaluation report provides summary lessons from the qualitative implementation study, but focuses predominantly on recipient responses to the PRAs based on an analysis of individual-level PRA and unemployment insurance data from the seven original demonstration states. The lessons from this evaluation of the PRA experience are of value to policymakers and program administrators as the concept of self-managed accounts in the workforce investment system continues to evolve beyond this specific demonstration.

Perez-Johnson, Irma, Quinn Moore, and Robert Santillano. "Improving the Effectiveness of Individual Training Accounts: Long-Term Findings from and Experimental Evaluation of Three Service Delivery Models." Washington, DC: Mathematica Policy Research, 2011.

This report presents results from an experimental evaluation of the effectiveness of different models for delivering individual training account (ITA) services, with impacts measured six to eight years after program enrollment. The Employment and Training Administration in the U.S. Department of Labor designed the ITA experiment to provide federal, state, and local policymakers, administrators, and program managers with information on the tradeoffs inherent in different ITA service delivery models. The experiment tested three models that differed on three dimensions: (1) the ITA award structure, (2) counseling requirements, and (3) staff approval of program choices.

IV. SOCIAL SECURITY DISABILITY INSURANCE

Autor, David, Nicole Maestas, Kathleen Mullen, and Alexander Strand. "Does Delay Cause Decay? The Effect of Administrative Decision Time on the Labor Force Participation and Earnings of Disability Applicants." NBER Working Paper 20840. Cambridge, MA: National Bureau of Economic Research, 2015.

This paper measures the causal effect of time out of the labor force on the subsequent employment patterns of Social Security Disability Insurance (SSDI) applicants and distinguishes it from the discouragement effect of receiving disability benefits. Using a unique Social Security Administration workload database to identify exogenous variation in decision times induced by differences in processing speed among disability examiners to whom applicants are randomly assigned, the study finds that longer processing times reduce the employment and earnings of SSDI applicants for multiple years following application, with the effects concentrated among applicants who are awarded benefits at the time of their initial application.

Autor, David H., and Mark Duggan. "Supporting Work: A Proposal for Modernizing the U.S. Disability Insurance System." Washington, DC: Center for American Progress and The Hamilton Project, The Brookings Institution, 2010.

This paper proposes a mechanism for modernizing the structure of the SSDI program to better support individuals with disabilities in the workplace, encourage their self-sufficiency, and reduce the waste stemming from (1) too few societal resources spent on helping people with disabilities to remain employed and (2) too many societal resources spent on supporting unnecessary long-term dependency. The proposed mechanism adds a "front end" to the SSDI system by offering the following key provisions: workplace accommodations, rehabilitation services, partial income support, and other services to workers who suffer work limitations, with the goal of enabling them to remain in employment; and financial incentives to employers to accommodate workers who become disabled and minimize movement of workers from their payrolls onto the SSDI system.

Berkowitz, Monroe. "Improving the Return to Work of Social Security Disability Beneficiaries." In *Disability, Work and Cash Benefits*, Jerry L. Mashaw, Virginia Reno, Richard V. Burkhauser and Monroe Berkowitz, eds. Kalamazoo, MI: The Upjohn Institute for Employment Research, 1996, pp. 331–356.

This book chapter focuses on the specific needs of individuals whose disability affects their workforce participation. The needs focused on include access to health care, personal assistance, and assistive technologies.

Stapleton, David, Arif Mamun, and Jeremy Page. "Initial Impacts of the Ticket to Work Program: Estimates Based on Exogenous Variation in Ticket Mail Months." *IZA Journal of Labor Policy*, vol. 3, no. 6, 2014.

This report presents results from an analysis of the impact of the introduction of the original Ticket to Work program, based on longitudinal administrative data for young, new social security disability beneficiaries. The report finds clear evidence that the mailing of Tickets during the rollout period did increase service enrollment. However, the report finds no consistent evidence that this impact translated to an increase in the number of months in which beneficiaries did not receive benefits following suspension or termination for work.

Stapleton, David C., David R. Mann, and Jae Song. "Firm-Level Early Intervention Incentives: Which Recent Employers of Disability Program Entrants Would Pay More?" DRC Working Paper No. 2015-01. Washington, DC: Mathematica Center for Studying Disability Policy, 2015.

This working paper uses linked Social Security administrative data to analyze SSDI program reform proposals that would hold firms partially responsible for a portion of the SSDI benefits paid to their former employees. One proposal would require employers to carry short-term disability insurance; the second proposal would apply an experience rating to the SSDI portion of the Federal Insurance Contributions Act premium. The analysis creates baseline firm-level benefit liability measures, simulates firm liabilities under the proposals, and compares the simulated liabilities to the baseline measures. The analysis finds that the proposals would place a relatively large burden on low-wage firms with fewer than 500 workers.

Stapleton, David, Yonatan Ben-Shalom, and David Mann. "The Employment/Eligibility Service System: A New Gateway for Employment Supports and Social Security Disability Benefits." Chapter 3. *In SSDI Solutions: Ideas to Strengthen the Social Security Disability Insurance Program*, edited by Jim McCrery and Earl Pomeroy. West Conshohocken, PA: Infinity Publishing, 2016.

This paper details a proposal to modernize the gateway to SSDI to address problems with (1) limited access to timely work supports, and (2) performance issues including long processing times, large numbers of allowances after appeals, and others.

V. The PHYSICIAN'S ROLE

American College of Occupational and Environmental Medicine (ACOEM). "The Personal Physician's Role in Helping Patients with Medical Conditions Stay at Work or Return to Work." 2008. Available at http://www.acoem.org/PhysiciansRole_ReturntoWork.aspx. Accessed July 1, 2016.

This document addresses the role of the personal physician in helping the patient minimize life and work disruption. The document outlines principles for physicians that will enhance patients' medical and functional outcomes, prevent needless work disability, and help the patient stay employed. The document complements ACOEM's 2006 guidance, "Preventing Needless Work Disability by Helping People Stay Employed."

Denne, Jacob, George Kettner, and Yonatan Ben-Shalom. "The Role of the Physician in the Return-to-Work Process Following Disability Onset." Submitted to the U.S. Department of Labor. Washington, DC: Mathematica Policy Research, 2015.

This report outlines recommendations for more effectively incorporating physicians into the RTW process. The recommendations are based on ideas presented in the existing research or suggested by individuals interviewed for the paper, as well as ideas developed by the research team. The report also shares recommendations that the Office of Disability and Employment Policy (ODEP) in the U.S. Department of Labor could implement as it focuses its efforts to improve employment outcomes for people with disabilities.

Heidkamp, Maria, and Jennifer Christian. "The Aging Workforce: The Role of Medical Professionals in Helping Older Workers and Workers with Disabilities to Stay at Work Or Return to Work and Remain Employed." Issue brief. Washington, DC: NTAR Leadership Center, 2013.

This issue brief summarizes an event held to explore the relationships between medical professionals, employers, and the public workforce and vocational rehabilitation systems in terms of their current and desired roles in preventing needless work disability, with "disability" in this context defined as the absence from work due to a medical condition. Participants were asked to reflect on the challenges in engaging the medical community in helping older individuals with disabilities, or those who are experiencing reduced functionality, to stay at work and remain successfully employed until they choose to retire.

VI. MUSCULOSKELETAL DISORDERS

Buchbinder, R., D. Jolley, and M. Wyatt. "Population Based Intervention to Change Back Pain Beliefs and Disability: Three Part Evaluation." *BMJ*, vol. 322, no. 7301, pp. 1516–1520.

This study evaluates the effectiveness of a population based, statewide public health intervention designed to alter beliefs about back pain, influence medical practices, and decrease disability claims and the costs of compensation. The design consists of quasi-experimental, non-randomized, non-equivalent before-and-after telephone surveys of the general population and mail surveys of general practitioners with an adjacent state as control group, and a descriptive analysis of a claims database. The results show that, in the intervention state, beliefs about back pain became more positive between successive surveys. Doctors' beliefs about back pain also became more positive. There was a clear decline in the number of claims for back pain, rates of days compensated, and medical payments for claims for back pain over the duration of the campaign.

Buchbinder, R., and D. Jolley. "Population Based Intervention to Change Back Pain Beliefs: Three Year Follow Up Population Survey." *BMJ* (Clinical Research Ed.), vol. 328, no. 7435, 2004, p. 321.

This study measures sustained change in beliefs about back pain after the end of a population-based campaign designed to alter beliefs about back pain in Victoria, Australia. The study used computer-assisted telephone interviewing of a random sample of the population of Victoria and New South Wales in December 2002. The results showed that popular beliefs about back pain remained more positive in Victoria since the end of the media campaign. However, there was some decay in the observed effect between surveys 3 and 4.

Iles, R.A., M. Davidson, N.F. Taylor. "Psychosocial Predictors of Failure to Return to Work in Non-Chronic Non-Specific Low Back Pain: A Systemic Review." *Occupational Environmental Medicine*, vol. 65, no. 8, 2008, pp. 507–517.

This paper identifies psychosocial predictors of failure to return-to-work because of non-chronic, non-specific low back pain (NSLBP). To predict work outcome in non-chronic NSLBP, psychosocial assessment should focus on recovery expectation and fear avoidance. More research is needed to determine the best method of measuring these constructs and to determine how to intervene when a worker has low recovery expectations.

Linton, Steven J., Katja Boersma, Michal Traczyk, William Shaw, and Michael Nicholas. "Early Workplace Communication and Problem Solving to Prevent Back Disability: Results of a Randomized Controlled Trial Among High-Risk Workers and Their Supervisors." *Journal of Occupational Rehabilitation,* 2015, pp. 1–10.

This study evaluates an intervention to prevent disability in the workplace due to back pain. The worker and workplace package (WWP) with problem-solving and communication skills resulted in fewer days off work, fewer health care visits, and better perceived health in comparison to treatment as usual. This indicates that screening combined with an active intervention to enhance skills is quite successful and likely cost-effective. Future research should replicate and extend these findings with health-economic analyses.

Mahmud, Mohammed A., Barbara S. Webster, Theodore K. Courtney, Simon Matz, James A. Tacci, and David C. Christiani. "Clinical Management and the Duration of Disability for Work-Related Low Back Pain." *Journal of Occupational and Environmental Medicine*, vol. 42, no. 12, 2000, pp. 1178–1187.

This study determines the link between health care utilization, the physician's initial management of work-related low back pain, and disability duration. Patients whose treatment course did not involve extended opioid use and early diagnostic testing were 3.78 times more likely to have gone off disability status by the end of the study.

Nicholas, Michael K., Steven J. Linton, Paul J. Watson, and Chris J. Main. "Early Identification and Management of Psychological Risk Factors ('Yellow Flags') in Patients with Low Back Pain: A Reappraisal." *Physical Therapy*, vol. 91, no. 5, 2011, pp. 1–17.

This study investigates whether psychological risk factors ("yellow flags") can be used to influence better outcomes, particularly for those with low back pain. Published early interventions have reported mixed results, but, overall, the evidence suggests that targeting yellow flags, particularly when they are at high levels, does seem to lead to more consistently positive results than do either ignoring them or providing omnibus interventions to people regardless of psychological risk factors.

Richmond, Helen, Amanda M. Hall, Bethan Copsey, Zara Hansen, Esther Williamson, Nicolette Hoxey-Thomas, Zafra Cooper, and Sarah E. Lamb. "The Effectiveness of Cognitive Behavioural Treatment for Non-Specific Low Back Pain: A Systematic Review and Meta-Analysis." *PloS One*, vol. 10, no. 8, 2015.

This article assesses whether cognitive behavioral therapy (CBT) improves disability, pain, quality of life, and/or work disability for patients with lower back pain of any duration at any age. CBT interventions yield long-term improvements in pain, disability, and quality of life in comparison to no treatment and other guideline-based active treatments for patients with LBP of any duration and of any age.

Theodore, Brian R., Tom G. Mayer, and Robert J. Gatchel. "Cost-Effectiveness of Early Versus Delayed Functional Restoration for Chronic Disabling Occupational Musculoskeletal Disorders." *Journal of Occupational Rehabilitation*, vol. 25, no. 2, June 2015, pp. 303–315. doi:10.1007/s10926-014-9539-0.

This research studies the cost-effectiveness of early rehabilitation using functional restoration (FR) for chronic disabling occupational musculoskeletal disorders. Duration of disability does not negatively impact objective work or healthcare utilization outcomes following interdisciplinary FR. However, early rehabilitation is more likely to be a cost-effective solution compared to cases that progress >8 months or to receiving FR as a treatment of "last resort."

Webster, B. S., S. K. Verma, and R. J. Gatchel. "Relationship Between Early Opioid Prescribing for Acute Occupational Low Back Pain and Disability Duration, Medical Costs, Subsequent Surgery and Late Opioid Use." *Spine,* vol. 32, no. 19, 2007, pp. 2127–2132.

This study examines a retrospective cohort of workers' compensation claims for acute disabling low back pain (LBP). Specifically, the study examines the association between early opioid use for acute LBP and outcomes including disability duration, medical costs, "late opioid" use (at least 5 prescriptions from 30 to 730 days), and surgery in a two-year period following LBP onset. The results show a negative association between receipt of early opioids for acute LBP and outcomes, suggesting that the use of opioids for the management of acute LBP may be counterproductive to recovery.

Williams, R.M., M.G. Westmorland, C.A. Lin, G. Schmuck, and M. Creen. "Effectiveness of Workplace Rehabilitation Interventions in the Treatment of Work-Related Low Back Pain: A Systematic Review." *Disability & Rehabilitation,* vol. 29, no. 8, 2007, pp. 607–624.

This systematic review evaluates the effectiveness of workplace-based rehabilitation interventions for workers with musculoskeletal work-related low back pain. The best evidence was that clinical interventions with occupational components as well as early return to work/modified work components were effective in returning workers to work faster, reducing pain and disability, and decreasing the rate of back injuries. Ergonomic interventions also were found to be effective workplace interventions.

VII. MENTAL DISORDERS

Burton, W.N., C. Chen, D.J. Conti, A.B. Schultz, and D.W. Edington. "The Association of Antidepressant Medication Adherence with Employee Disability Absences." *American Journal of Managed Care*, vol. 13, no. 2, 2007, pp. 105–112.

This paper evaluates the relationship between antidepressant medication adherence and short-term disability among employees. A higher incidence of short-term disability was associated with antidepressant medication nonadherence in both acute and continuation treatment phases. Employers may save indirect costs by providing assistance to encourage employees to adhere to their antidepressant medication treatment.

Carriere, Junie S., Pascal Thibault, and Michael J.L. Sullivan. "The Mediating Role of Recovery Expectancies on the Relation Between Depression and Return-to-Work." *Journal of Occupational Rehabilitation*, vol. 25, no. 2, 2015, pp. 348–356.

This study examines whether recovery expectancies affect the association between depression and RTW status in individuals with work-related musculoskeletal disorders. The results suggest that interventions specifically targeting recovery expectancies in individuals with work-related musculoskeletal disorders and depressive symptoms might improve RTW outcomes.

Gimm, Gilbert, Denise Hoffman, and Henry T. Ireys. "Early Interventions to Prevent Disability for Workers with Mental Health Conditions: Impacts from the DMIE." *Disability and Health Journal*, vol. 7, no. 1, 2014, pp. 56–63.

Using random assignment, this study examined whether an early intervention program of personal navigators, enhanced medical care, and employment supports can reduce dependence on federal disability benefits for adult workers with mental health conditions.

McDowell, Caitlin, and Ellie Fossey. "Workplace Accommodations for People with Mental Illness: A Scoping Review." *Journal of Occupational Rehabilitation*, vol. 25, no. 1, 2015, pp. 197–206.

This review investigates the types of workplace accommodations provided for people with mental illness, along with their costs and benefits. Workplace accommodations appear to be important to support employees with mental illness, but more accessible information about how disability discrimination legislation applies to this population is needed. Future research should address the implementation and effectiveness of workplace accommodations for persons with mental health conditions.

Nigatu, Y.T., Y. Liu, M. Uppal, S. McKinney, S. Rao, K. Gillis, and J. Wang. "Interventions for Enhancing Return to Work in Individuals with a Common Mental Illness: Systematic Review and Meta-Analysis of Randomized Controlled Trials." *Psychological Medicine*, 2016, pp. 1–12.

This review assesses the effectiveness of existing workplace and clinical interventions that were designed to enhance RTW. A systematic review of studies of interventions for improving RTW in workers with a common mental illness was conducted. Results from these studies suggested that the available interventions did not lead to improved RTW rates for the control group, but reduced the number of sick-leave days in the intervention group compared to the control group.

Reme, Silje Endresen, Astrid Louise Grasdal, Camilla Løvvik, Stein Atle Lie, and Simon Øverland. "Work-Focused Cognitive–Behavioural Therapy and Individual Job Support to Increase Work Participation in Common Mental Disorders: a Randomised Controlled Multicentre Trial." *Occupational and Environmental Medicine*, vol. 72, no. 10, 2015, pp. 745–752.

This study is a randomized trial to evaluate the effectiveness of work-focused cognitive behavioral therapy (CBT) and individual job support for people struggling to work because of common mental disorders (CMDs). A work-focused CBT and individual job support were more effective than usual care in increasing or maintaining work participation for people with CMDs. The effects were profound for people on long-term benefits. This is the first large-scale RCT to demonstrate an effect of a behavioral intervention on work participation for the large group of workers with CMDs.

Rost, K., J.L. Smith, and M. Dickinson. "The Effect of Improving Primary Care Depression Management on Employee Absenteeism and Productivity: A Randomized Trial." *Medical Care,* vol. 42, no. 12, 2004, pp. 1202–1210.

This study evaluates an intervention to improve primary care depression management and in turn improve productivity at work and absenteeism over 2 years. This trial, which demonstrates that improving the quality of care for any chronic disease has positive consequences for productivity and absenteeism, encourages formal cost-benefit research to assess the potential return-on-investment that employers of stable workforces can realize from using their purchasing power to encourage better depression treatment for their employees.

Wang, Philip S., Gregory E. Simon, and Ronald C. Kessler. "Making the Business Case for Enhanced Depression Care: The National Institute of Mental Health-Harvard Work Outcomes Research and Cost-Effectiveness Study." *Journal of Occupational & Environmental Medicine*, vol. 50, no. 4, 2008, pp. 468–475.

This paper details the return on investment rationale for increased employer involvement in depression care. Results of the Work Outcomes Research and Cost-Effectiveness Study trial and of other studies suggest that enhanced depression care programs represent a human capital investment opportunity for employers.

VIII. TARGETING MECHANISMS

Brouwer, Sandra, Boudien Krol, Michiel F. Reneman, Ute Bültmann, Renée-Louise Franche, Jac J.L. van der Klink, and Johan W. Groothoff. "Behavioral Determinants as Predictors of Return to Work After Long-Term Sickness Absence: An Application of the Theory of Planned Behavior." *Journal of Occupational Rehabilitation*, vol. 19, no. 2, 2009, pp. 166–174.

This prospective, longitudinal cohort study analyzes the association between the three behavioral determinants of the theory of planned behavior (TPB) model—attitude, subjective norm, and self-efficacy—and the time to RTW in employees on long-term sick leave. The study was based on a sample of 926 employees on sickness absence (maximum duration of 12 weeks). The employees filled out a baseline questionnaire and were subsequently followed until the 10th month after listing sick. The results show that work attitude, social support, and willingness to expend effort in completing the behavior are significantly associated with a shorter time to RTW in employees on long-term sickness absence.

Duijts, Saskia F. A., Ijmert Kant, and Gerard M. H. Swaen. "Advantages and Disadvantages of an Objective Selection Process for Early Intervention in Employees at Risk for Sickness Absence." *BMC Public Health*, vol. 7, January 2007, pp. 67–68.

This paper presents evidence of successful objective selection of employees at risk for sickness leave. The study shows that objective selection of employees for early intervention is effective. Despite methodological and practical problems, selected employees are actually those at risk for sickness absence, who will probably benefit more from the intervention program than others.

Linton, S.J., and K. Boersma. "Early Identification of Patients at Risk of Developing a Persistent Back Problem: The Predictive Validity of the Örebro Musculoskeletal Pain Questionnaire." *Clinical Journal of Pain*, vol. 19, no. 2, 2003, pp. 80–86.

The study examines the predictive validity of the Return-to-Work Self-Efficiency (RTWSE) Scale with the outcome of RTW status in a sample of injured workers with upper extremity and back musculoskeletal disorders. The results underscore that psychological variables are related to outcome six months later, and they replicate and extend earlier findings indicating that the Örebro Screening Questionnaire is a clinically reliable and valid instrument. The total score was a relatively good predictor of future absenteeism due to sickness as well as function, but not of pain. The results suggest that the instrument could be of value in isolating patients in need of early interventions and may promote the use of appropriate interventions for patients with psychological risk factors.

Melton, Larry, Robert Anfield, Gail Kane, Nathan White, Jeff Young, and Katie Dunnington. "Reducing the Incidence of Short-Term Disability: Testing the Effectiveness of an Absence Prediction and Prevention Intervention Using an Experimental Design." *Journal of Occupational and Environmental Medicine*, vol. 54, no. 12, 2012, pp. 1441–1446.

This trial identifies employees at high risk of short-term disability and evaluates a health advocate nurse-led intervention on short-term disability incidence. While not statistically significant, the results suggest that the intervention for employees at high risk of STD achieves practical and clinical significance by achieving absolute and relative reductions in risk of STD of 3% and 15%, respectively.

O'Leary, Christopher, Paul Decker, and Stephen Wandner. "Cost-Effectiveness of Targeted Reemployment Bonuses." *Journal of Human Resources,* vol. 40, no. 1, winter 2005.

This paper shows that targeting bonus offers with profiling models similar to those in state Worker Profiling and Reemployment Services systems can improve cost-effectiveness. Because estimated average benefit payments do not steadily decline as the eligibility screen is gradually tightened, the paper finds that narrow targeting is not optimal. The best candidate is a low bonus amount with a long qualification period, targeted to the half of profiled claimants most likely to exhaust their unemployment insurance benefit entitlement.

Stover, B., T.M. Wickizer, F. Zimmerman, D. Fulton-Kehoe, and G. Franklin. "Prognostic Factors of Long-Term Disability in a Workers' Compensation System." *Journal of Occupational and Environmental Medicine*, vol. 49, no. 1, 2007, pp. 31–40. doi:10.1097/01.jom.0000250491.37986.b6.

This study aims to identify predictive factors of long-term disability in new workers' compensation claims to guide secondary prevention research and target interventions for high-risk claims. Predictors of long-term disability included delay between injury and first medical treatment, older age, construction industry, logging occupation, longer time from medical treatment to claim filing, back injury, smaller firm size, female gender, higher unemployment rate, and having dependents.

van Oostrom, S.H., M.T. Driessen, H.C.W. de Vet, R.L. Franche, E. Schonstein, P. Loisel, W. van Mechelen, and J.R. Anema. "Workplace Interventions for Preventing Work Disability." *Cochrane Database of Systematic Reviews*, no. 2, 2009.

This study determines the effectiveness of workplace interventions compared to usual care/clinical interventions on work- and health-related outcomes; it also attempts to determine if results differ for musculoskeletal disorders, mental health problems, and other health conditions. As a result of the few available studies, no convincing conclusions can be formulated about the effectiveness of workplace interventions on work-related outcomes and health outcomes, regardless of the type of work disability. The pooled data for the musculoskeletal disorders subgroup indicated that workplace interventions are effective in the reduction of sickness absence, but they are not effective in improving health outcomes. The evidence from the subgroup analysis on musculoskeletal disorders was rated as moderate-quality evidence. Conclusions cannot be drawn on the effectiveness of these interventions for mental health problems and other health conditions because there are so few studies.

IX. TREATMENT AND DURATION GUIDELINES

Reed Group. "MDguidelines." n.d. Available at http://go.reedgroup.com/MDGuidelines2.html?gclid=CJvezvCCrcwCFUlufgod9P0IKw. Accessed July 1, 2016.

This webpage features the Reed Group's MDguidelines, which provide evidence-based tools and protocols to make appropriate RTW and treatment decisions. The guidelines are based on the latest federal and state guidelines and supported by advanced clinical research.

Roberts, Eric T., Eva H. DuGoff, Sara E. Heins, David I. Swedler, Renan C. Castillo, Dorianne R. Feldman, Stephen T. Wegener, Vladimir Canudas-Romo, and Gerard F. Anderson. "Evaluating Clinical Practice Guidelines Based on Their Association with Return to Work in Administrative Claims Data." *Health Services Research*, forthcoming.

This article examines the association between not following clinical practice guidelines (CPGs) and the time it takes to return to work for patients that experience workplace injuries. There is not a consistent relationship between performance on CPGs and RTW. The association between performance on CPG and RTW is difficult to measure in observational data, because analysts cannot control for omitted variables that affect a patient's treatment and outcomes. CPGs supported by observational studies or randomized trials may have a more certain relationship to health outcomes.

Wiesner, Steve, Joe Guerriero, and Martha Garcia. "From Patient to Productivity: Effectiveness of Evidence-Based Guidelines in the Clinical Environment." Integrated Benefits Institute (IBI) Annual Forum. San Francisco, CA: Kaiser Permanente and Reed Group, 2016.

This presentation, given by representatives of Kaiser Permanente and the Reed Group, discusses the effectiveness of evidence-based guidelines in the clinical environment. In particular, the presentation covers the importance of clinical guidelines; using guidelines in the clinical setting; measuring performance; how guidelines fit into Kaiser Permanente's vision and strategy; and applying learnings from occupational health to population health.

Work Loss Data Institute. "ODG Treatment Guidelines." n.d. Available at http://www.worklossdata.com/treatment-guidelines.html. Accessed July 1, 2016.

This webpage features Official Disability Guidelines (ODGs) published by the Work Loss Data Institute. Each guideline is electronically linked directly to abstracts of medical evidence. The ODGs are designed for use in clinical practice as well as utilization review and management.

X. OTHER

Attridge, Mark. "EAP Integration with Disability Case Management." *Journal of Employee Assistance,* vol. 46, no. 2, 2016.

This article focuses on how EAPs can collaborate with other departments as well as external benefits providers to help employees get back to work sooner and more effectively after being out of work on a health-related disability insurance claim.

Cotner, Bridget A., Eni N. Njoh, John K. Trainor, Danielle R. O'Connor, Scott D. Barnett, and Lisa Ottomanelli. "Facilitators and Barriers to Employment Among Veterans with Spinal Cord Injury Receiving 12 Months of Evidence-Based Supported Employment Services." *Topics in Spinal Cord Injury Rehabilitation*, vol. 21, no. 1, 2015, p. 20.

This paper examines the association between facilitators and barriers of employment among veterans with spinal cord injuries who participated in an evidence-based supported employment program. Qualitative data illustrate how the integration of the vocational rehabilitation specialist into the medical team is helpful for addressing identified disability-specific barriers, including practical matters such as transportation and caregiving schedules, thereby facilitating positive employment outcomes.

Derr, Michelle, and Pamela Holcomb. "Employer Resource Networks: Uniting Businesses and Public Partners to Improve Job Retention and Advancement for Low-Wage Workers." Submitted to the U.S. Department of Labor, Employment and Training Administration. Washington, DC, and Oakland, CA: Mathematica Policy Research and Social Policy Research Associates, 2010.

This issue brief describes the Employer Resource Network (ERN), an innovative, employer-based model that brings together a consortium of small- to mid-size businesses to provide job retention services, work supports, and training opportunities for entry-level employees, many of whom are receiving public assistance. The issue brief provides an overview of key features of the ERN model so that other employers and government agencies—most notably workforce development agencies—may consider whether and how ERNs or a similar approach might be used to develop new services or enhance existing ones in their own local communities.

Fong, Carlton J., Kathleen Murphy, John D. Westbrook, and Minda Markle. "Behavioral, Psychological, Educational and Vocational Interventions to Facilitate Employment Outcomes for Cancer Survivors: A Systematic Review." *Campbell Systematic Reviews*, vol.11, no. 5, 2015.

This review highlights the positive effect psychosocial interventions may have on employment outcomes for cancer survivors. Overall, however, the methodological shortcomings of the included studies make it likely that there is bias in the results, and there are too few studies to provide sufficiently strong evidence to recommend particular practices. This review brings attention to the need for additional rigorous studies in this area, in particular randomized controlled trials with more detailed reporting of data, study design, and methodology.

Graham, Carolyn, Michael West. "Employment Interventions for Return to Work in Working Aged Adults Following Traumatic Brain Injury (TBI): A Systematic Review." *Campbell Systematic Reviews*, 2016.

This review examines the effectiveness of different rehabilitation interventions on RTW outcomes of adults who sustain a traumatic brain injury (TBI). There are several recommendations for the direction of research on RTW for adults with TBI. First, researchers conducting studies of return-to-work VR interventions for adults with TBI must improve the quality of their research by conducting randomized controlled trials. Second, separating competitive employment from school attendance would provide a more accurate estimate of impact on return to work. Third, research is needed with other populations outside the United States and with samples of civilians. Last, future return-to-work VR studies should report time to employment, hours worked, separate rates of competitive employment, sheltered employment, educational training, and continued follow-ups at 12 months or more.

Kanera, Iris Maria, Roy A. Willems, Catherine A.W. Bolman, Ilse Mesters, Victor Zambon, Brigitte C.M. Gijsen, and Lillian Lechner. "Use and Appreciation of a Tailored Self-Management eHealth Intervention for Early Cancer Survivors: Process Evaluation of a Randomized Controlled Trial " *Journal of Medical Internet Research*, vol. 18, 2016, no. 8.

This study describes and evaluates a fully automated computer-tailored web-based self-management intervention, Kanker Nazorg Wijzer (KNW [Cancer Aftercare Guide]). KNW was developed to support early cancer survivors as they worked to adequately cope with psychosocial complaints, and to promote a healthy lifestyle. The study results indicate that the KNW provides personal, relevant, and valuable information and support for early cancer survivors.

Loeppke, Ronald, Vince Haufle, Kim Jinnett, Thomas Parry, Zhu Jianping, Pamela Hymel, and Doris Konicki. "Medication Adherence, Comorbidities, and Health Risk Impacts on Workforce Absence and Job Performance." *Journal of Occupational & Environmental Medicine*, vol. 53, no. 6, 2011, pp. 595–604.

This study was designed to understand the impacts of medication adherence, comorbidities, and health risks on workforce absences and job performance. Results suggest integrated health and productivity management strategies should include an emphasis on primary and secondary prevention to reduce health risks in addition to tertiary prevention efforts of disease management and medication management.

Ottomanelli, Lisa, Scott D. Barnett, Lance L. Goetz, and Richard Toscano. "Vocational Rehabilitation in Spinal Cord Injury: What Vocational Service Activities Are Associated with Employment Program Outcome?" *Topics in Spinal Cord Injury Rehabilitation*, vol. 21, no. 1, 2015, p. 31.

This paper examines the role of specific vocational service activities as predictors of employment for people with spinal cord injuries (SCIs). Vocational services that actively engage veterans with SCIs in job seeking and acquisition and that provide on-the-job support are more likely to lead to employment compared with general vocational counseling that involves only job preparation.

Park, Hae Yean, Kinsuk Maitra, and Kristina Marie Martinez. "The Effect of Occupation-Based Cognitive Rehabilitation for Traumatic Brain Injury: A Meta-Analysis of Randomized Controlled Trials." *Occupational Therapy International*, vol. 22, no. 2, 2015, pp.104–116.

This study investigates the overall effect of occupation-based cognitive rehabilitation on patients' improvement in cognitive performance components, activity of daily living (ADL) performance, and values, beliefs, and spirituality functions of patients with a traumatic brain injury (TBI). Evidence from the study suggests that occupation-based cognitive rehabilitation would be beneficial for individuals with TBI, by improving daily functioning and positively affecting their psychosocial functions.

Strully, Kate W. "Job Loss and Health in the U.S. Labor Market." *Demography,* vol. 46, no. 2, 2009, pp. 221–246.

This article uses recent data from the U.S. Panel Study of Income Dynamics to estimate the effects of job loss on health, reducing the risk of selection bias by first isolating job losses that resulted from establishment closures, and then focusing on specific health conditions that should be the most sensitive to a recent stressor like job loss. The article concludes by considering whether the effects of job loss differ for white-collar and blue-collar workers.

Timmeney, Bridget, and Kevin Hollenbeck. "Employer Resource Networks: What Works in Forming a Successful ERN?" Report prepared for DISC (Disruptive Innovation for Social Change) Grand Rapids, MI, 2012.

This report summarizes the results of a survey that was conducted to determine the necessary components of a successful employer resource network (ERN). Thirteen representatives from six West Michigan ERNs were interviewed. The purpose of these interviews was to gather evidence on seven questions that emerged from a study contrasting the launch and operations of two of the six ERNs during the fall of 2010.

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