

Progression of Disability Benefits as a Measure of Disability Management Program Effectiveness: Implications for Future Research

Carolyn E. Danczyk-Hawley

Brian T. McMahon

Bruce G. Flynn

This study is a subset of a larger project that describes and documents the migration of individuals with work-limiting disabilities as they move through a system of economic disability benefits resulting in their ultimate placement into the Social Security disability system. Specifically, this migration involves a “progression” of sorts from short-term disability to long-term disability to social security disability income. This phenomenon has been labeled the Progression of Disability Benefits (PODB).

This particular aspect of the PODB project examines the association of PODB with employer disability management practices and integrated disability benefit practices. Specifically, 42 employers were contacted to complete a survey of their integrated disability benefit programs. These results were then compared with their PODB experience. It was found that employers demonstrating higher levels of integrated disability management activity experienced reduced PODB ratings.

Regardless of its auspices, research is a cumulative and integrative process. New knowledge comes from many sources, often in response to various policy initiatives. The Disability Policy Panel of the National Academy of Social Insurance (1996) has called for research that explores “...the consequences of benefit design changes or service intervention that would facilitate return to work.” The same spirit is contained in the Presidential Executive Order (National Task Force on Employment of Adults with Disabilities, 1998). This document contains a mission statement that includes: “to analyze...private disability systems and their effect upon federal programs and the employment of adults with disabilities.” Finally, the National Institute on Disability and Rehabilitation Research (2001), has called for research projects that study “...the identification and evaluation of disability management practices by which employers can assist workers who acquire or aggravate disabilities to remain employed, transfer employment, or remain in the workforce and out of public benefits programs.” Following these aims, these authors have embarked on an initial study, to assess a phenomenon referred to as the progression of disability benefits (PODB) and its relationship to disability management (DM) practice. Implications for future research are provided.

PROGRESSION OF DISABILITY BENEFITS

PODB refers to the migration of workers, who develop a work-limiting injury or illness as they move through a system of economic disability benefits resulting in their ultimate placement in the Social Security Administration (SSA) and specifically within Social Security Disability Insurance (SSDI). This phenomenon was documented by

McMahon, Danczyk-Hawley, Reid, Flynn, Owens & Kregel (2000), through a study of an UNUM/Provident database of all claimants receiving short-term disability (STD) from the period of 1994-1996. This statistically significant study found systematic movement of claimants from STD to long-term disability (LTD), to SSDI. More specifically, approximately one in nine claimants with STD moved on to collect LTD, and one in three claimants on LTD advanced further to SSDI. As documented by McMahon, et.al. (2000), the progression became even more systematic when additional features about the claimant (i.e., age, gender, region of residence, disability type, and employer were known).

Why is the investigation of PODB important? It has been hypothesized that insurance companies engage in cost-shifting to recoup dollars lost in compensated benefits (Hunt, Habeck, Owens, & Vandergoot, 1996; Schwartz, 1984). Cost shifting is the process whereby insurers recover a portion of the claimant's benefit costs collected under LTD by actively assisting individuals in obtaining SSDI benefits. Thus, when employees do not return to work, the final solution for insurers is one of cost-shifting to the public sector. While this cost-shifting obviously increases the public disability program enrollment and costs, it is also costly to the private sector employer. Butler, Gardner and Gardner (1998) documented that such cost-shifting results in increased benefits use and reduced overall productivity for the organization

Once an individual proceeds to collect SSDI compensation, their potential for return to work is minimal at best. The General Accounting Office (GAO, 1996) states that no more than 1 in 500 SSDI beneficiaries has departed the rolls in recent years because of return to work. Only 1 in 200 is even referred for vocational rehabilitation services to the state-federal program. In a careful cohort study of SSDI beneficiaries, Muller (1992) estimated that benefit terminations due to return to work occurred in less than 3% of all cases, and at least one-third of these eventually returned to the SSDI rolls. Yet, 72% of people with disabilities out of the workforce report that they want to work (Harris, 1998). So while a combination of cost-shifting, expanding accessibility, growing public awareness, SSA outreach, and changes in claimant behavior have resulted in a dramatic escalation in SSDI applications, the rate of departure from SSDI has actually been falling in recent years (Habeck & Hunt, 1999). The result has been a significant increase in the number of public disability beneficiaries in the US every year since 1982.

INTEGRATED DISABILITY MANAGEMENT

During the 1980s, employers were seeking ways to protect themselves from rapidly escalating health care and disability costs. For example, from 1980 to 1988 the cost of providing LTD benefits increased by nearly 80% while the cost of providing STD benefits increased by 50% (Barge & Carlson, 2001). Though the managed care revolution was able to stabilize medical costs in the 1990s, worker's compensation (WC) losses are again climbing and group health and disability costs are resuming the upward spiral. Disability costs are rising faster than ever, and are projected to increase by 11% in 2001 (Mercer, 2001).

Disability management (DM) is an approach generated from employer efforts to control rising disability costs. Akabas, Gates, & Galvin (1992), define DM as "a workplace prevention and remediation strategy that seeks to prevent disability from occurring or, lacking that, to intervene early following the onset of disability, using coordinated, cost-conscious, quality rehabilitation service that reflects an organizational commitment to continued employment of those experiencing functional work limitations. The remediation goal of disability management is successful job maintenance, or optimum timing for return to work" (pg.2).

The concept of integrated disability management (IDM) is a simple one — link the entire administration of health care, benefit, and case management components so they complement each other. In doing so, the employer can avoid the conflicting philosophies, redundant administrative costs, and internal turf issues that can result from administration of different benefits in separate corporate departments. In its basic form, IDM coordinates occupational and nonoccupational disability benefits, as well as absence and paid leave programs with a focus on early return to work (Flynn, 2000). Increasingly, IDM programs also coordinate health care, employee assistance and behavioral health care programs, health promotion, disease management, and medical case management services aimed at improving overall workforce health, return to work, easing administrative burden, and providing a seamless set of benefits for workers with disabling injuries and illnesses.

Interest in IDM programs seems to be increasing as illustrated by the growing number of employers offering such services. A recent survey by the Integrated Benefits Institute (2000), shows that 45% of responding employers are actively exploring such initiatives or are integrating benefits. Two-thirds of those with 5,000 to 10,000 workers are involved with integration plans, as are 81% of employers with more than 10,000 employees. A Watson Wyatt/Washington Business Group on Health survey (2000) found employers adopting IDM programs to: stem the rising costs of healthcare, reduce absenteeism and increase productivity, to manage the increasing prevalence of chronic illnesses (and resulting disability costs) among the aging work force, and to attract and retain employees.

PODM AND DM

The efficacy of IDM programs has traditionally been measured by the bottom line. Does DM reduce overall disability costs? Going forward, the authors propose that the PODB experience for employers may be used as an additional yardstick for assessing the effectiveness of DM programs not solely for the private sector organization, but for the resulting savings accrued in the public SSA system as well. Can DM be used to avert the PODB? This project is an initial attempt to answer that question.

This study explores the relationship of IDM on PODB. The authors propose employers demonstrating higher levels of IDM activity will experience a reduced PODB rating.

METHOD

SAMPLING DESIGN

From the original UNUM/Provident database containing all STD claims filed from January 1, 1994 through December 31, 1996, 42 employers having 100 or more claims were extracted to participate in this follow-up study. The survey was developed using a modified version of the Watson Wyatt/Washington Business Group on Health annual

survey of employer DM integrated practices. This survey was developed to capture aspects of those DM practices determined to have the greatest impact on cost savings and productivity. Employer respondents were contacted through a mailing in September 2000. Respondents were requested to complete a survey that assessed their implementation of IDM practices. Of the 42 surveys sent, 17 were returned after a maximum of two follow-up contacts with a response rate of 40%. Of the 17 employers who completed surveys, nine were usable. The remaining eight surveys were not included because valuable data relating to the data collection period (1994-1996) were not provided. Variables studied include employer DM practices such as the presence or absence of an integrated disability benefits system (i.e., STD, LTD, WC); behavioral health interventions or employee assistance programs; claims reporting; modified duty or return to work; and supervision or administration involvement.

Nine employers utilized for this study represent a total of 2169 claimants. Contact individuals for each organization were identified through UNUM/Provident to complete the survey. Individual job titles for the nine respondents were reported as: benefits manager, human resource personnel, vice president of human resources, director human resources, compensation manager, senior benefits administrator, benefits administrator, and director of employee benefits.

These nine employers were then classified according to their Standard Industry Classification (SIC) code into 3 categories representing industry type. Four employers were classified as manufacturing industries, 3 employers were classified as health services industries, and 2 employers were classified as service industries.

INSTRUMENT DESIGN

The instrument was designed to evaluate the extent to which DM practices were developed within each respondent's organization for the years 1995 and 2000. The year 1995 was chosen because it was the midpoint of the data collection period for the UNUM/Provident database (i.e., the period corresponding to the PODB statistic). A comprehensive literature review was conducted to develop the instrumentation for the study. In addition, documents were retrieved from organizations already conducting work in the domain of interest, such as the Washington Business Group on Health and Watson Wyatt annual *Staying @ Work* survey.

Based upon previous research reviewed, five IDM practices were found to correlate highly with reduced costs. In addition, companies applying at least three of the five best practices had absence rates of 1.4 percent of their workforce as compared to 5.3 percent for firms without DM programs. Thus, absence rates are three times higher among firms that do not use DM best practices (Watson Wyatt & Washington Business Group on Health, 2000). The IDM practices surveyed include:

IDM Practices:

1. Use of a transitional or modified duty return-to-work program. That is, an established program or set of policies that facilitates return-to-work in a transitional or modified duty job for any employee with a disability (regardless of etiology or applicable benefit system).
2. Utilization of disability case management. In an IDM system, the case manager (typically a nurse case manager or vocational rehabilitation counselor) works not only with the workers' compensation cases, but the non-occupational disability cases as well.
3. A single point of contact within the organization for filing benefit claims whether STD, LTD or WC.

(continued)

4. A single manager or department overseeing all of the benefit plans or programs (occupational and nonoccupational).
5. The involvement of a supervisor in the return to work process (Flynn, 2000).

After further review and development, these concepts were consolidated into 25 statements. Next, a Delphi technique was employed to refine and obtain consensus on survey items. The survey was sent to a group of expert advisers working within the field of DM for review and evaluation. The advisers were asked to critique the relevance of the statements until consensus was acquired. On the basis of these results, 19 of the previous 25 items were retained.

The survey form was organized into three sections. The first section related to integration of benefit practices. In part A respondents were asked to indicate whether their company utilized such practices as claims reporting, modified duty or return to work, case management, and supervision or administration. In part B of that same section required each practice to be rated as to whether these services were provided for all benefit plans (WC, STD, LTD); two benefit plans; different services for all plans; or unknown. The second section related to current disability management practices. Respondents were asked to rate whether the items were developed and in place in the organization, in development in the organization, or not developed (if known). Items included transitional/modified return-to-work; case management; independent medical exams; behavioral health interventions or employee assistance programs. The final section included three questions related to specific organizational characteristics. This section was omitted from analysis due to incomplete data.

RESULTS

Data analysis focused on three areas:

- Descriptive analysis of employer DM practices and PODB rates;
- Comparison of top three performing employers (low PODB) to the bottom three (high PODB); and
- A between groups comparison of PODB by industry classification.

The employer sample consisted of four manufacturing organizations, three health services organizations, and two service organizations representing a total of 2,169 claimants (see Table 1 below). Employers were rated on the extent of IDM practice that was in place in 1995. Cumulative mean scores were calculated. Scores ranged from 1.50 to 2.63, with a mean score of 2.21. An ideal score would have been 3, a low score would

result in a 0. The DM practices most reported as having been developed included: behavioral health/employee assistance programs, case management services, and transitional/modified return to work programs and supervisor involvement (see Figure 1 on the following page). Furthermore, claims reporting was reported most frequently to involve the highest level of integration between STD, LTD, and WC programs (refer to Figure 2 on the following page). Subsequently, the individual employer PODB experiences were examined. For each employer, the total number of claimants in STD, in LTD, and SSDI were calculated. The percentage of claimants moving from STD to LTD ranged from 2.2% to 16.9%, with a mean of 7.1%. The percentage of claimants moving from LTD to SSDI ranged from 0% to 77.7% with a mean of 46.7%.

Table 1: Employer IDM and PODB Levels

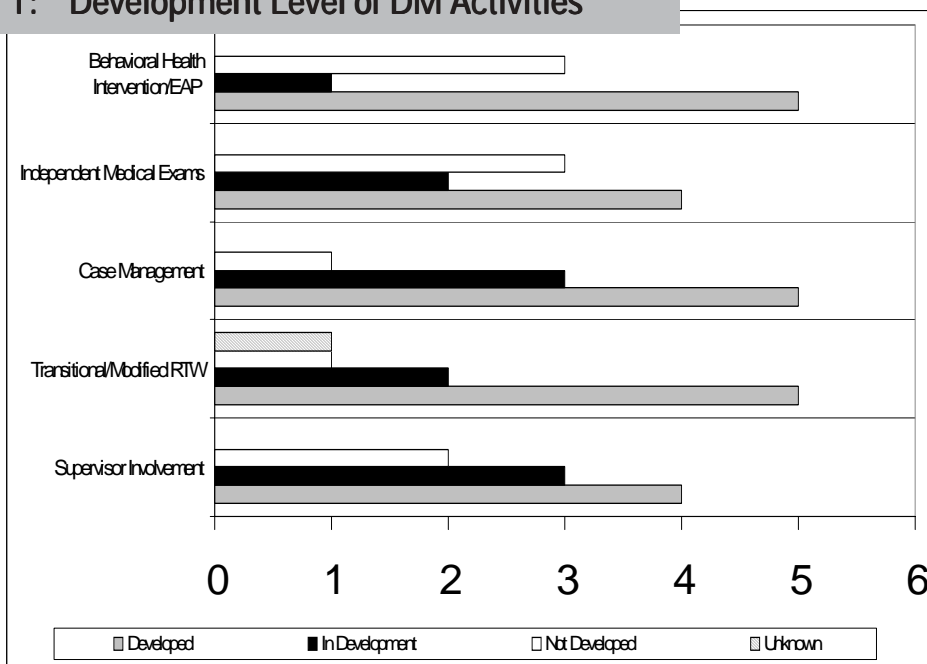
Industry	Integration & DM	PODB - N			PODB %	
		STD	LTD	SSDI	LTD	SSDI
<i>Manufacturer</i>	2.63	229	16	6	6.9	37.5
<i>Health Service</i>	2.63	407	9	7	2.2	77.7
<i>Service</i>	2.63	66	6	3	9.0	50
<i>Manufacturer</i>	2.38	88	5	5	5.6	100
<i>Manufacturer</i>	2.25	190	5	4	2.6	80
<i>Service</i>	2.17	485	43	19	8.9	44.1
<i>Health Service</i>	2.17	478	38	19	7.9	50
<i>Manufacturer</i>	1.54	183	31	9	16.9	29
<i>Health Service</i>	1.50	43	1	0	2.3	0
	<i>mean</i> = 2.21	2169	154	72	<i>mean</i> = 7.1	<i>mean</i> = 46.7

NOTE: PODB refers to the progression of disability, STD to short-term disability, LTD to long-term disability, and SSDI refers to Social Security Disability Insurance.

COMPARING TOP DM PERFORMERS TO LOW DM PERFORMERS

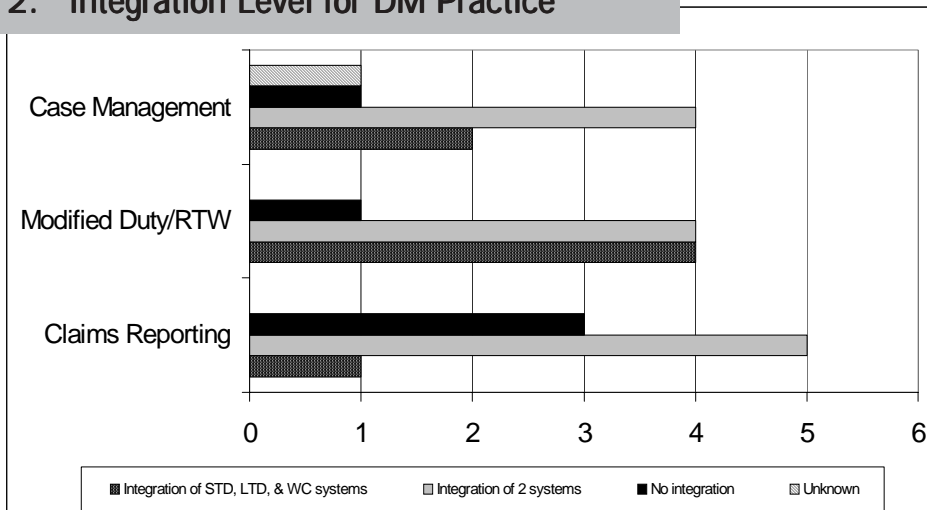
Next, the respondents were segmented into two groups based on IDM ratings. The top three employers with the highest levels of IDM practice were compared to the three employers with the lowest levels of IDM practice (refer to Table 2 on the following page). In examining the groups, a comparable experience is shown in the initial rate of employees receiving STD benefits for an injury or illness. The top group has a total of 702 claimants while the bottom group has a total of 704 claimants. However, this similarity ends as the progression into advanced levels of disability benefits is examined. As expected, the employers with low DM practices had greater movement of their employees into advanced disability status. Most notable, however, is the substantially greater movement of claimants into LTD (9.9% vs. 4.4%) and then into SSDI (54.2% vs. 51.6%). Thus, employers with fewer established DM practices had twice the STD to LTD progression rate. These differences create very considerable cost and productivity advantages for those employers with high levels of established DM practices.

FIGURE 1: Development Level of DM Activities



NOTE: EAP refers to Employee Assistance Program. RTW refers to return to work.

FIGURE 2: Integration Level for DM Practice



NOTE: Integration of two systems refers to either STD, LTD, or WC

Table 2: Top DM Performers vs. Low DM Performers.

DM Ratings	PODB - N			PODB %	
	STD	LTD	SSDI	LTD	SSDI
<i>Top 3 Employers</i>	702	31	16	4.4	51.6
<i>Lower 3 Employers</i>	704	70	39	9.9	54.2

INDUSTRY GROUP DIFFERENCES

The final comparison involves assessing between group differences in PODB ratings based on industry classification: manufacturing, service, or health services. Initially the claimant demographic variables of age, gender, and ICD-9 code were computed for the industry segments (see Table 3 on the following page). Regarding age, little variation is shown in claimants' mean age. Both the health service and manufacturing industries have a similar mean age of 37.2 compared to 36.8. The service industry has a slightly lower mean age of 34.2. Comparing gender distribution by percentiles, claimants from the health service (81.9% vs. 18.1%) and Service (76.9% vs. 23.1%) industries were predominately female, while claimants from the Manufacturing industry had a closer gender distribution with 57.6% males vs. 42.4% females. Claimants' disability type was classified into 11 different categories based on ICD-9 code (refer to McMahon, et.al, 2000). Musculoskeletal conditions followed by injury and poisoning encompassed the greatest percentage of claimants for both the manufacturing (22.3% & 18.1%) and the health service industries (18.6% & 17.9%). The largest percentage of claimant representation for the Service industry consisted of respiratory conditions (21.8%) followed by both musculoskeletal and injury and poisonings (15.1% & 14.9%). Claimant representation was similar in all industries regarding neoplasm, mental health, nervous and sensory, digestive, and other conditions. Representation within the circulatory category was similar for both health services and service industries, while somewhat higher in the manufacturing industry. Whereas representation in the genitourinary category was similar for both health service and manufacturing, and slightly lower in the service industry.

In evaluating the rate of PODB by industry, the service industry, followed closely by the manufacturing industry, has the highest rate of PODB with 8.8 % vs. 8.2% of claimants moving on to LTD, and 44.8% vs. 42.1% moving on to SSDI. Whereas, the healthcare industry has a much lower rate of progression to LTD (5.1%), with 54.1% of LTD claimants moving on to SSDI (refer to Table 4 on the following page). Considering no clear pattern emerges regarding claimant demographic variables between industries, the extent to which these characteristics influence the PODB industry comparisons is unknown.

CONCLUSION & FUTURE RESEARCH NEEDS

RESEARCH IMPLICATIONS FOR EMPLOYERS

Previous evidence suggests that DM programs do reduce costs. However, previous research on the outcomes and effectiveness of DM practice has not assessed the employer's PODB experience. In an antecedent study, McMahon, et.al. (2000), suggested that PODB may have use as a new tool for studying the value of DM (i.e., what do employer PODB rates tell about DM program efficacy?). Accordingly, the PODB model may provide a means for evaluating the ability of DM programs to change the disability experience rating for employers. Consistent with our hypothesis, we would expect that IDM practice would reduce PODB rates. As shown in the results, employers with greater levels of IDM had reduced movement of claimants on to advanced disability benefit levels. A possible explanation for the disparity in the prevalence of claimants moving from STD to LTD is that in a DM structure, early intervention typically occurs within the first six months an individual is collecting benefits (i.e., the STD period). Conversely, there has been a lack of success in return to work for individuals in LTD because they

Table 3: Claimant Demographics by Industry Type

	Service	Manufacturing	Health Services
<i>Mean Age</i>	34.2	36.8	37.2
<i>Gender - Percentiles %</i>			
<i>Male</i>	23.1	57.6	18.1
<i>Female</i>	76.9	42.4	81.9
<i>ICD-9 Code - Percentiles %</i>			
<i>Infectious, Endocrine, Blood</i>	8.7	3.6	4.2
<i>Neoplasm</i>	6	6.8	6.4
<i>Mental Health</i>	6	6.8	7.1
<i>Nervous & Sensory</i>	4.9	4.2	4.4
<i>Circulatory</i>	3.6	8.4	4.1
<i>Respiratory</i>	21.8	5.1	9.7
<i>Digestive</i>	7.8	9.1	10
<i>Genitourinary</i>	4.5	8.6	9.4
<i>Musculoskeletal</i>	15.1	22.3	18.5
<i>Injury & Poisoning</i>	14.9	18.1	17.9
<i>Other</i>	6.7	7	8.2
TOTAL	100	100	100

Table 4: PODB by Industry Type

Industry	% PODB	
	LTD	SSDI
<i>Service</i>	8.8	44.8
<i>Manufacturing</i>	8.2	42.1
<i>Healthcare</i>	5.1	54.1

have more severe injuries and illnesses. However, we have yet to fully understand the degree to which IDM practices affect PODB. This preliminary study provides a basis for future research.

While this study suggests that PODB may be averted with the use of IDM, additional research could employ PODB rates to evaluate specific DM features such as:

- Program effectiveness: does DM practice lead to a reduction in the number of claims and increase return to work?
- Benefit design adequacy: are the right incentives provided to encourage return to work versus dependency on disability benefits? and
- Claims administration capabilities: are claims where an individual could be returned to work recognized early enough or are claimants needlessly progressing into higher disability benefit levels?

Furthermore, research utilizing large sample sizes could develop industry specific benchmarks on PODB rates. Thus, employers could place themselves along a continuum to determine if their PODB activity is high or low compared to other employers within their industry.

The concurrent examination of additional variables (such as worker occupation, work environment, and employer response to disability) would also provide for a deeper understanding of the factors associated with PODB. Examination of other employer characteristics (beyond SIC code) may help us understand how organizational features impact these rates. Knowing that employees in health service experience a lower level of PODB than their counterparts in the general service industries (although claimant demographics are similar), we could further study the work environment to see how and why this occurs. For example, how do specific DM practices, benefit provisions, work culture, attitudes towards disability, employee demand, wages, unionization, and the like interact to influence the PODB?

RESEARCH IMPLICATIONS FOR INSURERS

Disability insurance rates are based on long-developed actuarial tables which predict the rate at which employees will become disabled and leave work. These calculations are based (primarily) on demographic factors such as age of workforce, type of industry, geographic region, and the like. However, if the PODB rate (and, by extension, the number of employees leaving the workforce and ending up on SSDI) is influenced by the extent to which employers utilize IDM, this leads to implications for LTD insurance pricing. What PODB rates tell insurers is that PODB may be influenced by employer practice (i.e., utilization of IDM). Knowing PODB rates could provide a way to design more accurate rate pricing and incentives for managers to improve their handling of disability issues.

RESEARCH IMPLICATIONS FOR PUBLIC POLICY

Does IDM avert the migration of claimants with an injury or illness from the private disability benefit system to the public system? If so, does DM provide the additional advantage of costs savings to the public SSA system? The data obtained from this preliminary study support the hypothesis that DM activities may interrupt and minimize the PODB for employees collecting disability benefits. Thus, employers with IDM programs are relying less upon offsets (SSDI) to manage disability.

Burkhauser and Daly (1996) argue that the most effective way to decrease SSDI rolls is to initiate programs that would reduce the flow of new persons onto these rolls. If indeed IDM makes a difference in the number of new beneficiaries collecting SSDI, tax breaks for employers could be used as an incentive for encouraging employers to utilize IDM practices.

RESEARCH IMPLICATIONS FOR REHABILITATION EDUCATION

As DM evolves and new concepts such as PODB arise, the roles and responsibilities of rehabilitation practitioners in a DM setting must also advance. A recent study by Chan, Taylor, Currier, Chan, Wood & Lui. (2000) of DM consultants revealed that professionally there is an increasing emphasis on providing case management functions for rehabilitation practitioners. Specifically, Chan et al. (2000) identified four major job functions reported by respondents: Managerial/Consultive roles in DM; vocational counseling/assessment and job placement;

disability case management; and early return to work intervention. The reported knowledge domains needed for competence in these areas of practice include: psychosocial intervention skills; vocational aspects of disability; disability case management; human resources/business knowledge; and managed care and managed disability. However, while these knowledge domains are necessary for effective DM practice, research has demonstrated that such training is lacking both in nursing preparation (Haw, 1996) and in rehabilitation counseling preparation (Chan, McMahon, Shaw, Taylor, & Wood, 1997). Research has conveyed that DM has become an emerging practice area for private rehabilitation practitioners (Leahy, Chan, Taylor, Wood, and Downey, 1999), thus, CORE accredited program curricula should respond proactively to emerging needs and roles; this includes offering relevant new courses, infusing principles of DM into existing courses, and developing new DM internship sites (Rosenthal & Olsheski, 1999).

RESEARCH IMPLICATIONS FOR PEOPLE WITH DISABILITIES

What does PODB mean for persons with disabilities? Further exploration of the relationship between claimant characteristics and the PODB might allow us to examine the interventions targeted at unique groups of workers. Indeed, some disability specific PODB studies have been completed (Danczyk-Hawley, McMahon & Reid, in press; Wagner, Danczyk-Hawley, & Reid, 2000). But more detailed studies would allow for an improved understanding of how workers come to STD status and the factors associated with initial incidence as well as migration through the progression. This may lead to the development and implementation of optimal and appropriate DM strategies to avert the PODB and return employees to work.

Additionally, it is well known that the United States workforce is both aging and shrinking relative to the need for qualified workers. Current demographic data are compelling in that life expectancy is soaring while birth rates are declining (Calkin, Lui, & Wood, 2000). Therefore, employers will need to maintain a productive workforce. Also, as our workforce ages, a shift will occur in the needs of disabled workers from medical care for acute injuries and conditions to care for chronic, ongoing health problems. Obviously, programs such as IDM, that can return workers to productive employment, may represent the best possible hope for interrupting the PODB and retaining valuable employees in the workforce.

As employers experiment with more expansive employee benefit programs designed to improve chronic illness management, current SSDI beneficiaries may find the workplace a more secure and inviting alternative under such policies as the Ticket to Work/Work Incentives Improvement Act (Flynn, 2000). DM efforts to improve return to work outcomes (thereby resulting in reduced enrollment and dependence on SSDI), will ultimately result in greater workplace flexibility and reduced benefit costs. This, in turn, will pave the way for improved employment prospects for people with disabilities.

Looking ahead, many employers who have implemented some form of IDM program understand how to use services to optimize return to work. A study of Washington Business Group on Health members found that the presence of DM programs can contribute to increased workplace accommodations and enhanced acceptance of employees with disabilities (Bruyere, 2000). Furthermore, employers with IDM programs indicated that those programs contribute to ADA implementation, greater supervisor awareness of the accommodation process, the establishment of an organizational structure for accommodations, and recognition of the importance of confidentiality of medical information. In addition, as more companies realize the benefits of DM programs, acceptance of people with disabilities in the workplace will increase. This points to the need for more research that evaluates the impact of DM programs on the hiring and retaining of employees with disabilities.

This study is an initial attempt to demonstrate how employers who utilize the philosophy and practice of IDM programs can substantially prevent and control work disability and the progression of workers with an injury or illness onto lifelong dependency on the SSA system. With the expansion of DM, employers are realizing that they can exert considerable control over many factors that impact the cost of disability in the workplace (Shrey & LaCerte, 1995). The Washington Business Group on Health in collaboration with Watson Wyatt Worldwide has been surveying employers regarding their DM activities since 1996. The most recent survey illustrates that 43% of large employers have implemented some form of IDM (WW & WBGH, 2000). That is up from just 26% in 1996. Reasons cited for this growth include greater productivity and more cost-effective outcomes. PODB provides an additional example that things employers do can make a difference in disability experience. Yes, it does matter what employers do.

Akabas, S.H., L.B., & Galvin, D.E. (1992). *Disability Management: A Complete System to Reduce Costs, Increase Productivity, Meet Employee Needs, and Ensure Legal Compliance*. New York: AMACOM.

Burkhauser, R.V., and Daly, M.C. (1996). Employment and economic well being following the onset of a disability: The role for public policy. In J. Mashaw, V. Reno, R.V. Burkhauser, & M. Berkowitz (Eds.), *Disability, work, and cash benefits*. Kalamazoo, MI: Upjohn Institute for Employment Research.

Bruyere, S. (2000). *Disability Employment Policies and Practices in Private and Federal Sector Organizations*. Ithica, NY: Cornell University.

Butler, R.J., Gardner, B.D., & Gardner, H.H. (1998). More than cost-shifting: Moral hazard lowers productivity. *The Journal of Risk and Insurance*, 65(4), 671-688.

Calkins, J., Lui, J.W., Wood, C. (2000). Recent Developments in Integrated Disability Management: Implications for Professional and Organizational Development. *Journal of Vocational Rehabilitation*, 15, 5-16.

Chan, F., McMahon, B., Shaw, L., Taylor, D., & Wood, C. (1997). Survey of rehabilitation counselor education programs regarding health care case management in the private sector. *Journal of Rehabilitation*, 46-52.

Chan, F., Taylor, D., Currier, K., Chan, C.C, Wood, C., & Lui, J. (2000). *Disability Management Practitioners: A work behavior analysis*. *The Journal of Vocational Rehabilitation*, 15 47-56.

Danczyk-Hawley, C.E., McMahon, B.T., & Reid, C.R. (In press). Progression of Disability Benefits: A Barrier to Independence for Persons with Neurological Impairments. *The Brain Injury Source*.

Flynn, B. (December, 12, 2000). *Best Practices of Organizations Utilizing Disability Management Strategies*.

Habeck, R.V., & Hunt, H.A., (1999). *Disability Management Perspectives*. *American Rehabilitation*, 25 (1), 18-25.

Haw, M.A. (1996). Case management education in universities: a national survey. *Journal of Case Management*, 10-22.

Hunt, H.A., Habeck, R.V., Owens, P., & Vandergoot, D. (1996). Lessons from the private sector. In J. Mashaw, V. Reno, R.V. Burkhauser, & M. Berkowitz (Eds.), *Disability, work and cash benefits*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.

Integrated Benefits Institute. *Overcoming Challenges: Key Lessons for Employers on Integrating Employee Benefits*. November, 2000

- Leahy, M., Chan, F., Taylor, D., Wood, C., & Downey, W. (1998). Evolving knowledge and skill factors for practice in private sector rehabilitation. *NARPPS Journal* 6 (1), 34-43.
- Louis Harris and Associates. (1998). *Survey of Americans with Disabilities*.
- McMahon, B.T., Dancyk-Hawley, C.E., Reid, C., Kregel, J, Flynn, B., & Habeck, R. (2000). The Progression of Disability Benefits. *Journal of Vocational Rehabilitation*, 15, 5-16.
- Mercer, W.M. Inc. (2001). *Cost of Employee Absences Can Have a Significant Impact on Business Performance*. New York – 12 Feb, 2001.
- Muller, L.S. (1992). Disability beneficiaries who work and their experience under program work incentives. *Social Security Bulletin*, 55 (2).
- National Academy of Social Insurance, Disability Policy Panel (1996). *The Environment of disability income policy*. Washington, DC: Author.
- National Institute on Disability and Rehabilitation Research. (2001). *Long Range Plan*. Washington, DC: Retrieved from the World Wide Web: http://www.ncddr.org/rpp/emp/lrp_ov.html
- National Task Force on Employment of Adults with Disabilities (1998). *Task Force Fact Sheet*. Washington, D.C. Retrieved from World Wide Web: http://www.dol.gov/dol/_sec/public/programs/ptfead/factsheet.htm.
- Rosenthal, D.A., & Olsheski, J.A. (1999). Disability management and rehabilitation counseling: Present status and future opportunities. *Journal of Rehabilitation*, 65 (1), 31-38.
- Shrey, D. E., & Lacerte, M. (1995). *Principles and Practices of Disability Management in Industry*. GR Press, Inc. Winter Park, FL.
- Schwartz, G., (1984, May). Disability costs: The impending crisis. *Business and Health*.
- United States General Accounting Office: *Social Security Disability Insurance: Multiple Factors Affect Beneficiaries' Ability to Return to Work*. (1998). Report to the Chairman, Subcommittee on Social Security, Committee on Ways and Means, House of Representatives, GAO/HEHS-98-39.
- Wagner, C., Dancyk-Hawley, C.E., & Reid, C. (2000) *The Progression of Employees with Mental Disorders through Disability Benefits Systems*. *Journal of Vocational Rehabilitation*, 15, 17-29.
- Watson Wyatt/WBGH. (2000). *Staying at Work: Improving Health and Productivity*. Fifth Annual Watson Wyatt/WBGH Survey on Integrated Disability Management.