

Older workers who receive short-term disability benefits to compensate them for medical conditions that limit their ability to work are three times more likely than younger workers to progress to permanent public disability benefits. This article documents the base rates of progression from short-term private to long-term private to permanent public disability benefits among older workers with various medical conditions.

Acknowledgments: This research was conducted partially under the auspices of the Rehabilitation Research and Training Center on Workplace Supports at Virginia Commonwealth University. Grant funding was provided by the National Institute on Disability and Rehabilitation Research (H133B980036). Appreciation is extended to UNUM/Provident Corporation and the Washington Business Group on Health for providing the necessary data and technical assistance to execute this study. The authors thank Brian McMahon for his input on the article.

* Christopher C. Wagner, Carolyn E. Danczyk-Hawley, and Kathryn Mulholland are with Virginia Commonwealth University. Bruce G. Flynn is with Watson Wyatt, Inc.

Older Workers' Progression from Private Disability Benefits to Social Security Disability Benefits

*by Christopher C. Wagner, Carolyn E. Danczyk-Hawley, Kathryn Mulholland, and Bruce G. Flynn**

Summary

People with medical conditions that limit their ability to work tend to receive short-term disability benefits initially and may then move to long-term and eventually to permanent disability benefits. The progression of older workers (those aged 55 to 64) along that continuum of benefits is documented here with data from a large disability insurance company. The data show that older workers who receive short-term medical disability benefits are three times as likely as younger workers to progress to receipt of Social Security Disability Insurance (SSDI) benefits, although a slight reversal of that trend occurs as workers pass age 62.

Musculoskeletal conditions are the most frequent basis of short-term disability claims among older workers, with circulatory conditions running a close second. Furthermore, although all medical conditions are more likely to lead to SSDI benefits among older workers, circulatory conditions do so most frequently.

This article discusses industry standards for the management of disability claims at each level of severity. It also addresses common and emerging disability management practices that may

reduce the likelihood of impaired workers developing long-term or permanent financial dependence on disability benefits programs.

Introduction

Since the early 1970s, employers have encountered steadily rising health care, workers' compensation, and other disability-related expenditures (Galvin 1986). Current estimates from the Census Bureau indicate that the direct costs of disability have reached an all-time high of \$340 billion (U.S. Census Bureau 2000). When indirect costs such as overtime, low productivity, and lost customer service are taken into account, that figure could more than double (Block 1999).

The trend toward increased costs is not expected to abate. In fact, with the aging of the baby-boom generation, a rise in nonoccupational disability costs is imminent. Because both the likelihood of disability and the duration of any given disability incident increase with age, the costs of lost work time will continue to be a significant management issue. Further, the U.S. labor force is growing more slowly today than it has in the previous three decades. According to Labor Department statistics, the growth

rate of the labor force was consistently around 2 percent a year from the 1960s through the 1980s. In the 1990s, that growth dropped to about 1 percent annually. Thus, the overall aging of today's workers is coupled with fewer young people entering the workplace (Block 1999).

A Disability Policy Panel convened by the National Academy of Social Insurance attributes growth in the SSDI program to a number of additional trends (Social Security Policy Panel 1996). First, the economic recession in 1990-1991 fueled an increase in applications for benefits among older workers who lost their jobs because of corporate downsizing and other organizational changes. Yelin (1998) hypothesizes that many of the applications approved during cyclical economic downturns would not have been approved during good times.

Second, the eligible population is larger. Baby boomers are entering the age 35-50 range, in which the risk of disability rises, and many more women in the baby-boom generation have sufficient work experience to be insured for Social Security Disability Insurance (SSDI) benefits.

Third, baby boomers who enter the SSDI program because of impairments associated with middle age, such as musculoskeletal disorders (Stapleton and others 1998), are expected to remain beneficiaries for many years (Rupp and Stapleton 1998).

Fourth, cost-containment measures in the privately insured short-term disability, long-term disability, and workers' compensation benefit systems direct workers to the SSDI program in cases where claimants meet the initial SSDI eligibility criteria. The effect of such measures is to shift some or all of the benefit payments and medical costs from private disability insurance companies to the federal government (Fisher and Upp 1998).

Fifth, as an outgrowth of the emphasis in managed care programs on early identification and management of disease, disabling conditions are being recognized and diagnosed earlier in the course of the disease and at the primary level of health care. An example is the increased recognition of serious mental disorders in the mood and affect categories by primary care providers (Wagner, Danczyk-Hawley, and Reid 2000; Goldman 1998).

In response to these and other trends, employers have been in search of means to manage the rising costs of disability. One initiative has been the introduction of integrated disability management programs. Those programs coordinate workers' compensation, short- and long-term disability, medical care, and any other disability-related programs in order to bring down total costs, improve the health of the workforce, and increase the efficiency of administrative tasks (Block 1999).

A recent survey of large employers indicates that although the direct costs of disability benefit packages

averaged over 6 percent of payroll costs, employers saved 15 percent to 20 percent of disability costs by applying the best practices of disability management programs (WBGH and Watson Wyatt 1999). Those practices include transitional- or modified-duty return-to-work policies, disability case management services, a single point of contact for all benefit claims, and a single manager for all disability benefit programs. By applying such best practices, employers not only reduced the costs of their disability benefit programs but also provided accommodations and return-to-work opportunities for thousands of employees. Other best practices include behavioral health interventions and independent medical examinations (WBGH and Watson Wyatt 1999).

Despite these positive developments, the management of long-term disability claims in the private sector has consistently relied on helping individuals obtain SSDI benefits (Hunt and others 1996). Thus, if employer-based return-to-work programs and other disability management efforts fail, costs are shifted to the public program.

Industry Disability Standards

Private insurers provide disability coverage to a selected portion of the U.S. working population and are thus able to choose the industries to which they market policies (U.S. General Accounting Office 2001, p. 4). Furthermore, some employers opt to self-insure disability benefits and thus gain maximum control over the type and length of coverage while defining the types of impairments and classes of employees to which coverage applies.

The definition of disability is central to all issues regarding eligibility for benefits. Employer benefit plans progressively narrow the definition of disability as an employee moves from the more liberally applied sick leave to short-term disability (STD), long-term disability (LTD), and ultimately to the more restrictive SSDI.

The definition of short-term disability—that is, the temporary inability to perform the essential functions of one's own occupation—is used by insurers and employers alike and is generally consistent among benefit plans. Essentially, short-term disability is a temporary income replacement benefit for which employers can insure or self-insure. The benefit usually has a brief waiting period (1 to 7 days) that is coordinated with sick leave, and it typically replaces between 60 percent and 80 percent of an employee's wages. Although the duration of disability payments varies among employers, it tends to range from 3 to 12 months (WBGH 2000). There are isolated cases of employers offering up to 18 months of benefits to employees who participate in workplace disability management programs (Ahrens 2000). Short-term disability is a discretionary employment benefit. Although common, it is not universally offered by employers.

A form of state-mandated short-term disability coverage exists in California, Hawaii, New Jersey, New York, Rhode Island, and Puerto Rico. Known as state disability insurance, those programs are funded through employee and employer payroll contributions. Employers in those states may offer short-term disability insurance as well, but payroll contributions to the state system must continue, and employees may draw from only one of the benefit programs in case of disability. Typically, the state programs have a maximum duration of 12 months, with payments approximating no more than 50 percent of an employee's wages. Thus, short-term disability insurance has several advantages over the state disability insurance programs, including a higher rate of income replacement; employer coordination, control, and documentation of leaves of absence; and linkage with workplace disability management programs (Mulholland, Barocas, and Smorynski, forthcoming).

Long-term disability benefit plans, designed for cases of extended illness or injury, typically define disability in more restrictive terms—that is, the inability to perform the essential functions of one's own or any other occupation. Although that definition is generally consistent among insurers and employers, the actual number of days considered "extended illness" varies greatly among plans. Long-term disability is an income replacement plan, usually with a waiting period of 90 to 365 days, that is often coordinated with short-term disability. Typically, long-term benefit payments range between 50 percent and 67 percent of an employee's wages and can continue until the employee retires or reaches a specified age, provided the disability is continuous (WBGH 2000).

Typically, LTD benefits are reduced dollar for dollar by SSDI, hence the term "offset." Some employers offer an LTD supplement benefit that the employees can purchase on their own, to create a higher payout in the event LTD benefits are needed. The distinction here is who pays for which LTD benefit. For example, an employer purchases LTD insurance coverage for its employees. That employer may offer employees—most often a select number of key employees (usually executives, but not always)—a "buy up" option, meaning that the employee can purchase additional LTD coverage designed to supplement employer-paid LTD benefit payments. Most of those plans specifically state that in no event shall combined LTD (employer paid and employee paid) and SSDI payments exceed 100 percent of the employee's wage at the time of disability onset. Some plans limit the percentage to a maximum of 70 percent to 80 percent of an employee's wage.

Obviously, the greatest concern for employers is that there is a limit to the maximum payments an employee can receive from LTD. There is ample anecdotal evidence of employers and their insurers not monitoring the total amount of combined benefits, hence a serious overpayment. Yes, it can be a disincentive to return to work. But that is the crux of the matter—balancing reasonable benefit payments that support the employee with a disability against other human resources factors and needs.

Social Security Disability Insurance has the narrowest definition of disability—that is, the inability to engage in any substantial gainful activity by reason of a medically determinable physical or mental impairment expected to last for not less than 12 months or to result in death. Eligibility for SSDI benefit payments also depends on how much a worker earns (up to the maximum covered by Social Security) and for how long. The period of employment required to qualify for SSDI benefits varies with the age at which disability occurred. Once an employee receiving long-term disability benefits qualifies for SSDI payments, it is common practice to reduce the long-term payment so that combined payments do not exceed 100 percent of the employee's wages at the time the disability began (Mulholland, Barocas, and Smorynski, forthcoming).

The Progression of Disability Benefits

Studying the movement of workers from short-term disability through SSDI benefits may provide useful data to developers of private disability management programs and to policymakers for public disability insurance. As an initial step, it may be useful simply to determine base rates of progression through the system and how rates vary with workers' demographic characteristics, the industries in which they work, the disabling medical conditions that restrict their work activities, and so on. As reliable summary information is gathered, managers of integrated disability benefits and policymakers can determine the extent to which various medical conditions and demographic variables are associated with returning to work versus progressing to advanced levels of support. They can then focus services and funding of services accordingly.

This article is an extension of a global investigation of these issues that used information from a large private insurance database (see McMahon and others 2000). That earlier study showed that movement through the continuum of disability benefits was related to claimants' sex, age, type of disability, region of residence, and the industry in which they were employed. One of its findings was that for claimants over

the age of 45, participation in (and thus costs of) long-term disability and SSDI programs increased as they grew older (McMahon and others 2000). A reexamination of the data reveals further that although workers aged 55 and over account for only 15.9 percent of workers who received short-term disability benefits, they make up 22.4 percent of long-term disability claimants and 33.8 percent of those who eventually progressed to SSDI benefits.

Although this finding is perhaps not surprising, the disproportionate use of advanced benefits by older workers suggests that it may be worthwhile to examine data on those workers in greater detail—particularly since researchers and policymakers are attempting to determine what effects the increased eligibility age for Social Security retirement benefits will have on the SSDI

program. The private insurance database used in this study (the same used by McMahon and others 2000) provides one more avenue for examining this issue.

Data Collection and Analysis

The database examined in this article was extracted from all short-term disability claims filed between January 1, 1994, and December 31, 1996, with the UNUM (now UNUM/Provident) Life Insurance Company. The data, base comprises 115,438 consecutive claims filed during those 3 years by claimants who were also insured for long-term disability by UNUM. From that group, 35,996 cases involving pregnancy or complications of pregnancy were removed, as were 1,187 cases involving claimants who died. Cases involving workers over the age of 64

Table 1.
Comparison of short-term disability recipients in UNUM sample with U.S. workforce (in percent)

	Sample	U.S. workforce
Age group		
15-24	6	20
25-34	24	16
35-44	30	26
45-54	24	27
55-64	16	19
Sex		
Male	36	54
Female	64	46
Region		
Northeast	39	20
South	30	35
Midwest	20	24
West	10	22
Industry ^a		
Goods	30	25
Government/transportation	6	21
Retail	12	22
Finance	8	6
Services	44	27

a. Following McMahon and others (2000), employer Standard Industry Classification (SIC) codes were collapsed to create 5 classifications versus the original 11 as follows: goods (agriculture, forestry, mining, construction, manufacturing), government/transportation (transportation, communication, sanitary, electric/gas, public administration), retail (wholesale, retail trade), finance (finance, insurance, real estate). The service category was left consistent with the original SIC coding system.

Table 2.
Comparison of older and younger short-term disability recipients in UNUM sample (in percent)

	Aged 15-54	Aged 55-64
Total cases in sample	65,342	10,829
Sex		
Male	34.9	40.2
Female	65.1	59.8
Region		
Northeast	38.1	43.5
South	30.8	28.3
Midwest	20.5	19.3
West	10.6	8.8
Industry ^a		
Goods	29.7	33.2
Government/transportation	6.0	3.8
Retail	11.8	12.0
Finance	8.4	8.2
Services	44.2	42.7
Type of disability benefit		
Short-term	100.0	100.0
Long-term	11.2	17.2
SSDI	3.1	9.0

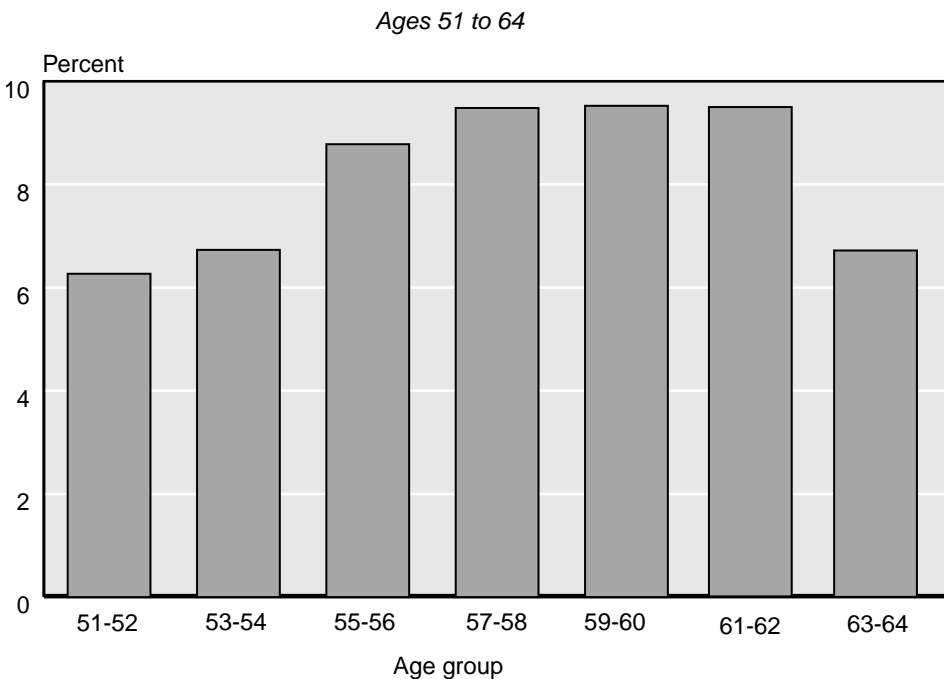
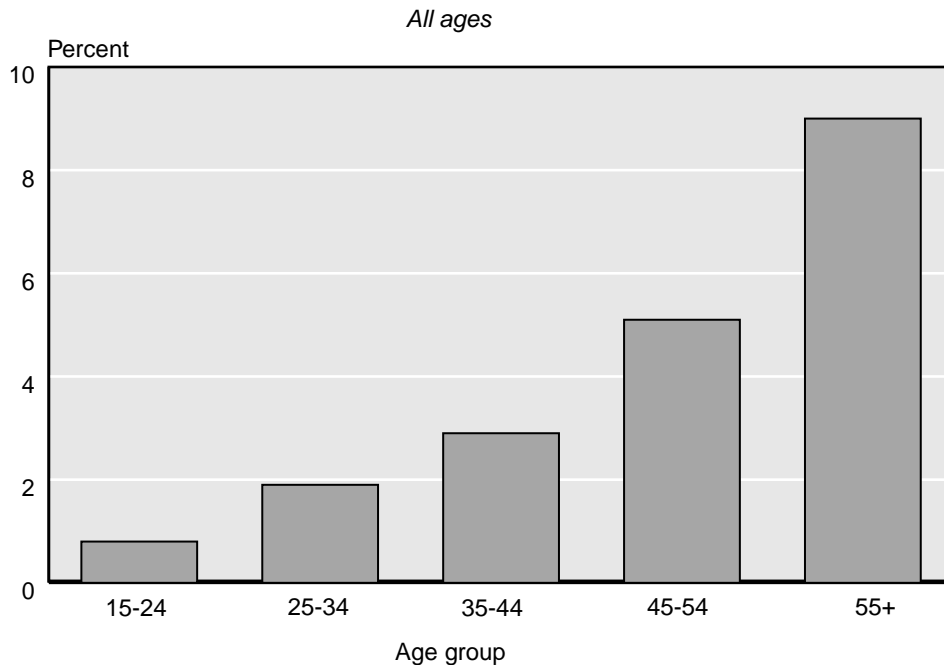
a. Following McMahon and others (2000), employer Standard Industry Classification (SIC) codes were collapsed to create 5 classifications versus the original 11 as follows: goods (agriculture, forestry, mining, construction, manufacturing), government/transportation (transportation, communication, sanitary, electric/gas, public administration), retail (wholesale, retail trade), finance (finance, insurance, real estate). The service category was left consistent with the original SIC coding system.

(1,126) were not used because those workers did not have access to SSDI benefits, one of the primary variables of interest. Finally, 968 cases whose long-term disability status resulted from short-term disability claims filed before the review period were eliminated.

Several features of this data set may bear upon the interpretation or generalization of findings. First, in order to minimize variations in the data attributable to claims

handling, the sample includes only claimants insured for both short- and long-term disability by UNUM, as noted above. In 1991, only 44 percent of U.S. workers were insured for short-term disability, and 25 percent were insured for long-term disability (Social Security Disability Policy Panel 1996). Thus, the sample represents only the minority of workers whose employers provided both forms of coverage.

Chart 1.
Short-term disability claimants progressing to Social Security Disability Insurance benefits



Second, claimants represent 4,285 employers, including 251 with 100 or more claims (85 of the 251 were health care institutions) and 3,218 with 20 or fewer claims. The 100 employers with the most claimants in this sample accounted for 41,854 claims, or 54.2 percent of the total. Most claimants work for large employers (those with 500 or more workers). Such employers are more likely than employers in general to offer integrated disability benefit programs and to have greater accommodations for disabled workers.

Third, available medical data were limited to the primary diagnosis only. Information on secondary or co-occurring medical conditions and the presence of health risks is also desirable in view of new research linking the number of health risks to productivity rates (WBGH 2000). Finally, no work-related injuries were included in this study; those injuries are addressed through a different disability benefit system, namely, workers' compensation.

Thus, the final database included all UNUM-insured workers aged 15 to 64 who worked for large employers with both short- and long-term disability benefit programs and who filed for short-term benefits during the data collection period. It excluded claims related to pregnancy, workers' compensation for injury, and workers who died during the data collection period. With those deletions, the final sample included 76,171 claims for short-term disability, 285 (0.4 percent) of which were lacking data for one or more of the vari-

ables studied. When a case was missing data for a variable, the case was excluded from the sample only for the examination of that particular variable.

Progression of Disability Benefits by Age

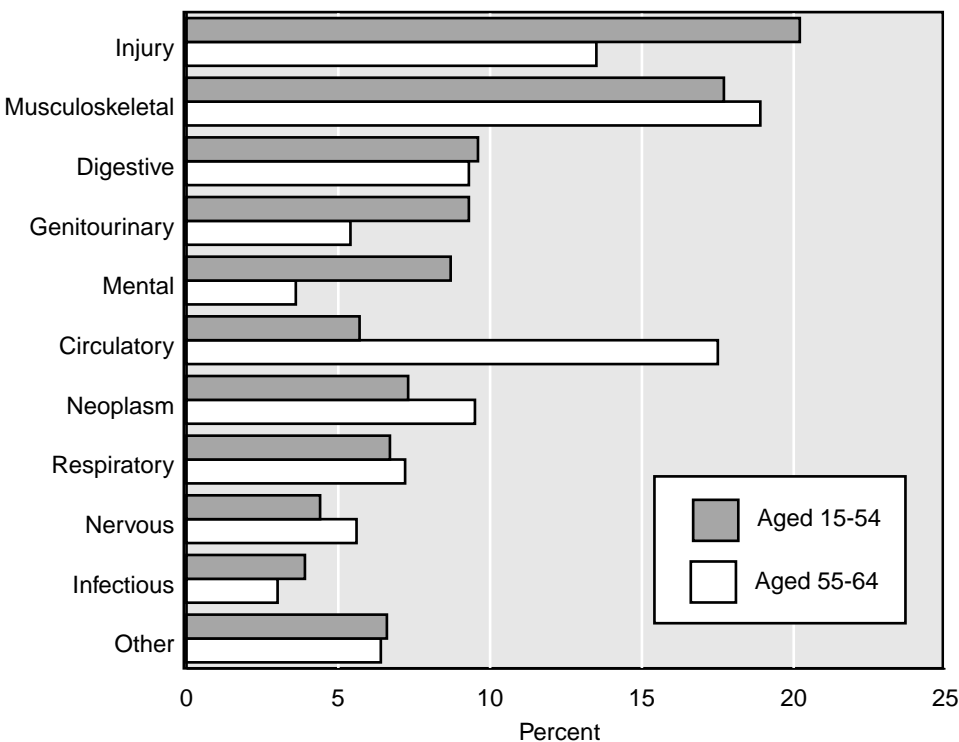
How does the demographic makeup of the sample compare with that of national averages from the filing period? As shown in Table 1 (p. 30), the UNUM sample has proportionately more women workers, service workers, workers aged 25 to 44, and workers from the Northeast. Conversely, it has fewer workers in govern., ment, transportation, and the wholesale or retail trades, fewer aged 15 to 24, and fewer from the West than U.S. averages at the time.

A similar comparison can be made between older and younger workers from the UNUM sample. As shown in Table 2 (p. 30), older workers are somewhat more likely to be male, from the Northeast, and from the goods industries. Viewing the overall progression of disability benefits, one can see that older claimants with work-limiting conditions are more likely to require long-term disability support than younger claimants. In addition, older workers are nearly three times as likely to require extended support from the SSDI system.

The likelihood that workers who file for short-term disability benefits will progress to SSDI benefits in., creases with the age at which they file. Chart 1 shows a steady and progressive increase across age categories in the percentage of workers who ultimately receive SSDI funds, ranging from a low of less than 1 percent of claimants in the 15-24 age group, to a high of 9 percent of claimants in the 55-and-over group.

A somewhat different pattern emerges as workers near retirement age. As can be seen in Chart 1 (p. 31), approximately 6 percent of workers aged 51 to 52 who filed short-term disability claims eventually progressed to SSDI benefits. That percentage continued to increase for each age group before leveling off at just under 10 percent around ages 57 to 58. After age 62, the percent., age of claims leading to SSDI benefits fell from about 9.5 percent to 6.5 percent. As it is quite unlikely that work-limiting medical conditions stop occurring after age 62, workers over that age probably found compensation through early retirement or other benefit programs. Alternatively, the drop-off may reflect the length of time required to successfully apply for SSDI funds, with up to one-third of the applicants timing out before being deemed eligible to receive SSDI.

Chart 2.
Short-term disability claimants, by disease category and age group



NOTE: Following McMahon and others (2000), the 16 original ICD-9 clusters were collapsed to create 11 categories. Collapsed categories are infectious (infectious, endocrine, blood) and other (skin, congenital, perinatal, other ill-defined).

Progression of Disability Benefits by Disease Classification

The type of disease on which short-term disability claims were based also varied by age. Chart 2 shows the percentage of older and younger claimants in 11 disability categories based on the Interna., tional Classification of Diseases (ICD-9).¹ The most common source of short-term disability claims for younger workers (aged 15 to 54) was nonoccupational injury (for example, injuries in., curred while playing sports or accidents in the home) followed by musculoskeletal disorders (various knee, back, and other joint disor., ders, including several types of arthritis). Combined, those two categories account for nearly 38 percent of all disability claims. The disease category least likely to require short-term disability support among younger workers was the infectious cluster, which includes infectious, endocrine, and blood diseases.

The share of claims based on circulatory conditions (including heart disease and stroke) was nearly three times as high for older workers as for younger workers. At the same time, injuries, genitourinary conditions, and mental conditions were a smaller share of claims for older workers. Claims based on other conditions were awarded at nearly the same frequency in both age groups.

In general, all medical conditions had more severe and chronic consequences for older workers and were more likely to lead to SSDI benefits. Chart 3 shows the percentage of short-term disability claimants who progress to SSDI benefits, split by age. Among workers aged 15 to 54, the infectious cluster of disorders was the category least likely to require short-term disability benefits (Chart 2), but workers who developed those disorders were the most likely to progress to SSDI support. Circulatory, nervous, and mental conditions also accounted for a large proportion of successful SSDI claims, while digestive, genitourinary, and injury-related conditions were the least likely to require SSDI support.

Among older workers, circulatory conditions were the most likely to lead to SSDI support. Moreover, older workers were twice as likely as younger workers with

those conditions to progress from short-term disability to SSDI. Mental conditions, although much less frequent among older workers (Chart 2), were the second most likely to progress to severe, chronic conditions, as measured by their likelihood to result in SSDI benefits. Respiratory conditions, which are only slightly more likely to develop in older workers, were four times as likely to eventually require SSDI support.

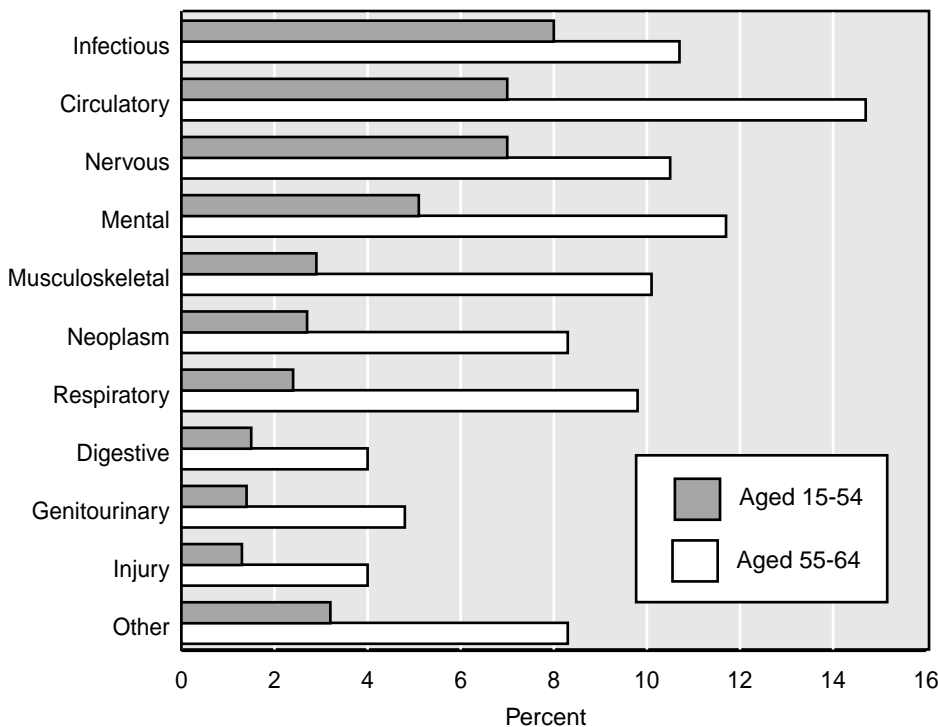
The rates of progression to long-term disability and SSDI benefits among workers aged 55 to 64 are shown in Table 3 for all medical conditions that had at least 50 short-term disability claims. Codes are based on the ICD-9 categorization scheme in use at the time the data were collected. Those data can be used to identify the conditions most (and least) likely to become chronic and debilitating among older workers.

The conditions most frequently requiring short-term disability benefits were acute and subacute ischemic heart disease (for example, coronary occlusion without myocardial infarction), unspecified disorders of back (such as spinal stenosis or low back pain), intervertebral disc disorders (such as degeneration or displacement of discs), and osteoarthritis.

The conditions most frequently requiring long-term disability were other chronic ischemic heart disease, osteoarthritis, and acute, but ill-defined, cerebrovascular disease. Although those conditions occur most frequently in the database, they are not necessarily the ones most likely to become chronic. Thus, disability managers must also focus on which disorders, once diagnosed, are most likely to progress. They can identify those conditions by examining the percentage of cases with a given disorder that eventually progress to SSDI. On a percentage basis, the diseases most likely to result in long-term disability were chronic airway obstruction (for example, chronic obstructive pulmonary disease), acute ill-defined cerebrovascular disease (such as stroke), rheumatoid arthritis, diabetes mellitus, and osteoarthritis.

The conditions most frequently requiring SSDI support include chronic ischemic heart disease, acute ill-defined cerebrovascular disease, osteoarthritis, unspecified musculoskeletal disorders of back, and intervertebral disc disorders. On a percentage basis, the disorders most

Chart 3. Short-term disability claimants progressing to Social Security disability insurance benefits, by disease category and age group



NOTE: Following McMahon and others (2000), the 16 original ICD-9 clusters were collapsed to create 11 categories. Collapsed categories are infectious (infectious, endocrine, blood) and other (skin, congenital, perinatal, other ill-defined).

Table 3.

Percentage of short-term disability claimants advancing to long-term disability and Social Security Disability Insurance benefits among workers aged 55 to 64, by disease conditions with 50 or more cases

ICD-9 category and conditions	STD recipients	LTD recipients		SSDI recipients	
		Number	Percent	Number	Percent
Infectious	117	16	13.7	9	7.7
Neoplasms	1,026	202	19.7	85	8.3
154 Malignant neoplasm of rectum, rectosigmoid junction, and anus	58	34	21.8	11	7.1
162 Malignant neoplasm of trachea, bronchus, and lung	77	15	25.9	4	6.9
174 Malignant neoplasm of female breast	156	12	27.3	9	11.7
185 Malignant neoplasm of prostate	131	11	8.4	3	2.3
Endocrine	183	42	23.0	23	12.6
250 Diabetes mellitus	92	29	31.6	18	19.6
Mental disorders	394	86	21.9	46	11.7
296 Affective psychoses	139	35	25.1	17	12.2
300 Neurotic disorders	91	18	19.8	7	7.7
311 Depressive disorder, not elsewhere classified	61	9	14.8	5	8.2
Nervous system and sense organs	607	108	17.7	64	10.5
366 Cataract	101	8	7.9	4	4.0
Circulatory system	1,899	443	23.3	279	14.7
410 Acute myocardial infarction	234	40	17.1	21	9.0
411 Other acute and subacute forms of ischemic heart disease	104	16	15.3	12	11.5
413 Angina pectoris	67	10	14.5	6	8.7
414 Other forms of chronic ischemic heart disease	477	104	9.4	59	12.4
427 Cardiac dysrhythmias	67	14	20.9	12	17.9
428 Heart failure	95	21	22.1	15	15.8
436 Acute, but ill-defined, cerebrovascular disease	150	74	49.3	51	34.0
Respiratory system	783	112	14.3	77	9.8
466 Acute bronchitis and bronchiolitis	86	7	8.2	6	7.0
486 Pneumonia, organism unspecified	186	25	13.5	18	9.7
490 Bronchitis, not specified as acute or chronic	86	5	5.9	4	4.7
493 Asthma	72	12	16.7	10	13.9
496 Chronic airway obstruction, not elsewhere classified	51	26	51.0	19	37.3
Digestive system	1,004	97	11.7	40	4.0
550 Inguinal hernia	124	6	4.8	1	0.8
553 gangrene	122	10	8.2	3	2.5
562 Diverticula of intestine	103	20	19.4	4	3.9
574 Cholelithiasis	134	7	5.2	3	2.2
575 Other disorders of gallbladder	81	6	7.4	3	3.7
Genitourinary system	580	51	8.8	28	4.8
618 Genital prolapse	141	6	4.2	2	1.4
Skin/subcutaneous tissue	185	25	13.5	15	8.1
682 Other cellulitis and abscess	71	5	7.0	3	4.2

Continued

Table 3.
Continued

ICD-9 category and conditions	STD recipients	LTD recipients		SSDI recipients	
		Number	Percent	Number	Percent
Musculoskeletal system and connective tissue	2,050	411	20.0	208	10.1
714 Rheumatoid arthritis and other inflammatory polyarthropathies	53	18	33.9	14	26.4
715 Osteoarthritis and allied disorders	278	85	30.6	43	15.5
716 Other and unspecified arthropathies	101	24	23.8	14	13.9
717 Internal derangement of knee	113	21	18.6	13	11.5
719 Other and unspecified disorders of joint	82	18	21.9	7	8.5
722 Intervertebral disc disorders	296	68	23.0	29	9.8
723 Other disorders of cervical region	50	5	5.0	3	6.0
724 Other and unspecified disorders of back	313	68	21.7	36	11.5
726 Peripheral enthesopathies and allied syndromes	133	14	10.5	8	6.0
727 Other disorders of synovium, tendon, and bursa	141	12	8.5	4	2.8
735 Acquired deformities of toe	179	12	6.7	4	2.2
Congenital anomalies	59	10	17.0	6	10.2
Symptoms, signs, and ill-defined conditions	454	72	15.9	37	8.1
780 General symptoms	98	25	25.5	15	15.3
786 Symptoms involving respiratory system and other chest symptoms	123	18	14.6	8	6.5
789 Other symptoms involving abdomen and pelvis	82	13	15.8	7	8.5
Injury and Poisoning	1,462	184	12.6	58	4.0
807 Fracture of rib(s), sternum, larynx, and trachea	53	3	5.7	1	1.9
813 Fracture of radius and ulna	77	11	14.3	2	2.6
824 Fracture of ankle	93	8	8.7	2	2.2
825 Fracture of one or more tarsal and metatarsal bones	93	8	8.6	3	3.2
836 Dislocation of knee	157	22	14.0	9	5.7
840 Sprains and strains of shoulder and upper arm	91	11	12.1	3	3.3
847 Sprains and strains of other and unspecified parts of back	186	20	10.8	7	3.8

NOTE: STD = short-term disability; LTD = long-term disability; SSDI = Social Security Disability Insurance.

likely to require SSDI support were chronic airway obstruction, acute ill-defined cerebrovascular disease, rheumatoid arthritis, diabetes mellitus, and cardiac dysrhythmias.

Discussion

Private disability insurance claims leading eventually to receipt of SSDI benefits increase in frequency among older workers until age 62, then drop off somewhat. The implication of this finding is that some disabled workers opt to take early retirement benefits rather than SSDI. Retirement benefits may be preferable to SSDI because they involve less investment of time and emotion, they include Medicare health benefits that are not available in

the first 2 years of disability coverage, and they typically result in quicker, if lower, payments (Dyckacz 1998).

The factors that affect decisions to apply for disability versus retirement benefits are numerous, complex, and extend well beyond the scope of the data presented in this article (see Fronstin 2000). Moreover, the extent to which that pattern may change in scope or direction under new policies is unknown.

What the data in this article can do is help employers, disability managers, and policymakers identify medical conditions and demographic variables that predict workers' progression through the continuum of disability benefits. With that knowledge, they can identify health risks earlier, intervene to prevent disabling conditions from becoming more severe, improve the efficiency of

services, and reduce the extent to which workers must rely on public benefits.²

Employers' disability management practices can help some disabled workers perform transitional or modified jobs (Ahrens 2000; Ahrens and Mulholland, forthcoming; Bahr and Mulholland 1997; Integrated Benefits Institute 1998; WBGH and Watson Wyatt 1999, 2000). With such transitional or modified work as part of the recovery process, some employees can return to work sooner from medical leaves of absence.

One effective disability management practice is health trend analysis. Based on employer-specific population statistics (Ahrens and Mulholland, forthcoming), health trend analysis is commonly thought of as internal benchmarking. It allows employers to anticipate health and disability trends and to respond to them through their employee benefits, occupational health, and human resources functions. Such analysis requires ongoing data collection and flexible benefits planning on the part of employers.

A simplified example of health trend analysis could be based on the data presented above. Those data reveal that certain medical conditions—namely, heart disease and related disorders, various musculoskeletal disorders, and obstructive pulmonary disorders—are common across the progression of disability benefits for the sample of older workers. Those medical conditions are amenable to disability management practices such as health risk appraisals, which emphasize factors that contribute to chronic illness and impaired function (Levin and Maloney 1993). Health risk appraisals may help employers identify health risks early and thus help prevent the occurrence or reduce the severity of those medical conditions by educating employees about weight management, smoking cessation, blood pressure control, and exercise (water aerobics, walking, low-impact aerobics, and the like).

Additional disability management practices such as workplace safety training, ergonomic changes in work settings, and other reasonable accommodations would also benefit older workers. Those practices are designed with the goals of disease and injury prevention, early intervention, and retention of affected employees at work whenever medically feasible and may therefore be considered stay-at-work initiatives (Mulholland, Barocas, and Smorynski, forthcoming).

The extent to which employers' practices interrupt the progression of disability benefits and keep employees working in healthier condition is often expressed in terms of soft savings—the dollars previously budgeted for disability costs but not realized because employees are able to continue working. A growing body of anecdotal evidence suggests that employers with mature, active disability management programs are beginning to convert

soft savings into a tangible percentage of the annual payroll (Helwig 2000), thus freeing up additional capital for business expansion, new or improved employee benefits, wage increases, and so on.

Notes

¹ Following McMahon and others (2000), the original 16 ICD-9 categories were collapsed into 11.

² Further study of the impact of various disability management practices on workers' progression is being carried out by the authors.

References

- Ahrens, A. 2000. "Disability Management and Benefits Integration in the Private Sector." In *Proceedings of the Annual Conference of the National Association of Rehabilitation Professionals in the Private Sector*. Dallas, Tex., pp. 1-33.
- Ahrens, A., and K. Mulholland. Forthcoming. "Vocational Rehabilitation and the Evolution of Disability Management: An Organizational Case Study." *Journal of Vocational Rehabilitation*.
- Bahr, A., and K. Mulholland. 1997. *Owens-Corning: Leaders in Benefit Integration*. IBI Employer Profile Series. San Francisco, Calif.: Integrated Benefits Institute.
- Block, D.J. 1999. "A Disability Management Focus." *Risk & Insurance* (October):51-52.
- Dyakacz, J.M. 1998. "Return of Disabled Worker Beneficiaries to the DI Program: Some Insights from the New Beneficiary Follow-up." *Social Security Bulletin* 61(2):3-12.
- Fisher, G., and M. Upp. 1998. "Growth in Federal Disability Programs and Implications for Policy." In *Growth in Disability Benefits: Explanations and Policy Implications*, edited by K. Rupp and D.C. Stapleton. Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research, pp. 289-297.
- Fronstin, Paul. 2000. "The Erosion of Retiree Health Benefits and Retirement Behavior: Implications for the Disability Insurance Program." *Social Security Bulletin* 63(4):38-46.
- Galvin, D.E. 1986. "Health Promotion, Disability Management, and Rehabilitation in the Workplace." *Rehabilitation Literature* 47(9-10, September-October):218-223.
- Goldman, H.H. 1998. "Policy Implications of Recent Growth in Beneficiaries with Mental Illness." In *Growth in Disability Benefits: Explanations and Policy Implications*, edited by K. Rupp and D.C. Stapleton. Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research, pp. 337-341.
- Helwig, V. 2000. "Staying@Work—Improving Workforce Productivity Through Integrated Disability Management." In *Proceedings of the 14th Annual Conference on Disability Management of the Washington Business Group on Health*. Washington, D.C., p. 8.
- Hunt, H.A.; R.V. Habeck; P. Owens; and D. Vandergoot. 1996. "Lessons from the Private Sector." In *Disability, Work and*

- Cash Benefits*, edited by J. Mashaw; V. Reno; R.V. Burkhauser; and M. Berkowitz. Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research, pp. 245-272.
- Integrated Benefits Institute. 1998. *Both Sides Now: Occupational and Non-Occupational Return-to-Work Programs*. San Francisco, Calif.: Integrated Benefits Institute.
- Levin, R.C., and S.K. Maloney. 1993. *An Employer's Guide to Health Promotion for Older Workers and Retirees*. Washington, D.C.: Washington Business Group on Health.
- McMahon, B.T.; C.E. Danczyk-Hawley; C. Reid; B.S. Flynn; R. Habeck; J. Kregel; and P. Owens. 2000. "The Progression of Disability Benefits." *Journal of Vocational Rehabilitation* 15:1-16.
- Mulholland, K.; V.S. Barocas; and D. Smorynski. Forthcoming. *Integrated Disability Management*. Phoenix, Ariz.: American Compensation Management.
- Rupp, K., and D.C. Stapleton, eds. 1998. *Growth in Disability Benefits: Explanations and Policy Implications*. Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research.
- Social Security Disability Policy Panel (convened by the U.S. House of Representatives, Ways and Means Committee, Subcommittee on Social Security and the National Academy of Social Insurance). 1996. "Executive Summary of *Balancing Security and Opportunity: The Challenge of Disability Income Policy*." *Social Security Bulletin* 59(1):79-84.
- Stapleton, D.C.; K. Coleman; K. Dietrich; and G. Livermore. 1998. "Empirical Analysis of DI and SSI Application and Award Growth." In *Growth in Disability Benefits: Explanations and Policy Implications*, edited by K. Rupp and D.C. Stapleton. Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research, pp. 31-80.
- U.S. Census Bureau. 2000. *U.S. Census Data*. Washington, D.C.
- U.S. General Accounting Office. 2001. Testimony of Barbara D. Bovbjerg, Director, Education, Workforce, and Income Security Issues, Health, Education, and Human Services Division, before the Subcommittee on Social Security, House Committee on Ways and Means. *SSA Disability: Other Programs May Provide Lessons for Improving Return-to-Work Efforts*, GAO-01-153 (January 12).
- Wagner, C.C.; C.E. Danczyk-Hawley; and C.A. Reid. 2000. "Progression Through Disability Benefits Systems: Employees with Mental Health Disabilities." *Journal of Vocational Rehabilitation* 15:17-29.
- WBGH (Washington Business Group on Health). 2000. *The Language of Managed Disability*. New York: William M. Mercer, Inc.
- WBGH (Washington Business Group on Health) and Watson Wyatt. 1999. *Staying@Work—Increasing Shareholder Value Through Integrated Disability Management*. Fourth annual survey report. Washington, D.C.: WBGH, p.10.
- Yelin, E. 1998. Comments on Chapter 2. In *Growth in Disability Benefits: Explanations and Policy Implications*, edited by K. Rupp and D.C. Stapleton. Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research, pp. 93-97.