Long Term Follow-up of a Controlled Study to Facilitate SSI Benefits: Final Report

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Executive Summary

This is the final report of a project initiated during FY2001-2002 and completed during FY2002-2003. Briefly, using mortality data from the Social Security Administration's public use Death Index, and selected administrative data available in the FMHI Policy and Services Research Data Center (PSRDC), a long-term follow-up study was conducted on the project published by Dow and Boaz (1994). In that study, 1025 individuals receiving treatment from three community mental health centers in 1991 were screened on citizenship, income, clinical, and functional criteria that determine eligibility for Supplemental Security Income (SSI). Based on information provided by case managers, a complex algorithm identified people who were *Possibly Eligible* or *Probably Not Eligible* for SSI. Further, the Possibly Eligible individuals were randomly assigned to either an *Experimental* or a *Control* condition. Experimental participants were assigned a project-funded Linkage Worker, who had received training in SSA procedures. The Linkage Workers told the Experimental participants about SSI, encouraged them to apply, and helped to complete application materials, including the identification and transmission of relevant medical records. Results of the study showed that the screening form was valid--the Possibly Eligible individuals were more likely to apply and they were more likely to get SSI, compared with the Probably Not Eligible individuals. Moreover, the intervention was effective. Experimental participants were more likely to apply and more likely to get SSI, compared with Control participants.

Now, over 10 years later, it is possible to access information on these individuals regarding treatment history and functioning from administrative data sets in the FMHI Policy and Services Research Data Center (PSRDC). Some of the more relevant datasets include Medicaid eligibility, Baker Act data, and state hospital admissions. This report presents a longitudinal analysis of these administrative data for individuals who were originally screened in 1991. Moreover, information about mortality from the Social Security Administration Death Index is analyzed as an initial indicator of the long-term predictive validity of the screening form, as well as an indicator of long-term outcome.

The results of this follow-up study show that the previously reported treatment effect has been maintained, despite the intervening years. Using Medicaid eligibility data, it is determined that during the four-year follow-up period, 49.0% of the Experimental participants were on SSI, compared with 40.6% of the Control participants. All groups were more likely to be on SSI during this follow-up period, compared with the latest comparison point reported in the prior study—11 months after screening. This demonstrates the need for severely impaired individuals to persist with the application process through the many levels of application, reconsideration, and appeal. The application process is discussed in detail, offering insights on why the rate of award was so much higher during the follow-up period (8 to 12 years later), than during the initial comparison point. Results show the long-term debilitating nature of severe and persistent mental illness. Fully 147 (15%) of the people screened in 1991 are now deceased, with an average age at death around 60. Some 18% of the people were Baker-Acted during the follow-up period and around 10% were admitted to a state hospital. Given that these individuals represented a cross-section of all individuals served at three CMHCs in 1991 who were not already on SSI, the chronic nature of these conditions and the eventual need for SSI among

individuals who may not have qualified initially, was established. Finally, some policy suggestions are offered for further consideration.

Introduction

The table below presents summary information about the two disability programs offered by the United States Social Security Administration. Because individuals who receive SSI are eligible for Medicaid, they represent an important group of people who may be studied in the AHCA contract between FMHI and USF.

Two SSA Disability Programs

•SSI (Supplemental Security Income)	•SSDI (Social Security Disability Insurance)
•Only poor people are eligible--low income and assets	•Only people who have worked are eligible (or some family)
•Title XVI	•Title II
•Brings Medicaid eligibility	•Usually eligible for Medicare after a waiting period
•Judged unable to work any full-time job (or presumed unable if over 65 or blind)	•Judged unable to work any full-time job (or presumed unable) or cannot do past work and several other specific conditions apply

The definition of disability used by SSA is quite restrictive--unable to work any full-time job. The exact wording of the 1991 SSA definition is as follows: "Disability is the inability to engage in any substantial gainful activity because of a medically determinable physical or mental impairment which can be expected to result in death or has lasted, or can be expected to last, for a continuous period of not less than 12 months."

Although only persons who are disabled are eligible for these programs, it is widely considered that the application process is fairly difficult. There are several forms to complete, appointments to keep, and the application process can require several levels of review and appeal before an individual is found to be disabled. Thus, the ironic thing about these programs is that it is sometimes difficult for some of the most impaired individuals to complete the application process.

For SSI, the process begins with a review of citizenship and financial criteria at the SSA office. The permissible dollar limits for income and assets change regularly, so it is best to examine the current figures on the SSA web page (www.ssa.gov). Moreover, the procedures for determining assets are very complex. If it is determined that a claimant is eligible to apply for SSI because the citizenship and financial criteria are met, the application is sent on to the state Disability Determination Services (DDS). There, a state employee collects clinical records and may request an independent psychological examination. When complete, the application packet with all clinical evidence is reviewed by one psychologist or psychiatrist (trained independent contractors) who completes clinical ratings that may determine disability. If rejected, and the claimant requests reconsideration, the same "paper review" process is conducted one more time with a different psychologist or psychiatrist, who is typically not blind to the prior ratings and may work out of the same DDS office. If rejected a second time and an appeal is filed, an Administrative Law Judge (ALJ) will hear the case and will typically see the applicant and all written evidence. The ALJ has much greater flexibility to combine mental and physical conditions that may not be disabling by themselves, but could be disabling in total. Moreover,

other issues, such as the number of jobs in the local economy, can be factored into the decision. The ALJ review and subsequent appeals use somewhat different criteria and are generally considered more lenient, compared with the DDS process. Thus, it is very important that individuals who are truly disabled, particularly those who have a combination of mental and physical impairments, persist with this process so they may be considered using both the DDS and the ALJ process.

Once put on disability, an individual is typically reevaluated three years later or seven years later. If the adjudicator believes that a change in status could occur before the three-year period, he or she may request a "short diary"—which could take place one year after the allowance.

Although the types of mental conditions that result in SSA disability adjudication are quite severe and persistent, no study has documented the long-term course of individuals who are considered disabled. In fact, very little research has been conducted on the SSI population, generally.

Essential Features of the Study by Dow and Boaz (1994)

In the study by Dow and Boaz (1994), case managers screened 1025 individuals who were receiving services from three community mental health centers using citizenship, income, clinical, and functional criteria. Income was the only financial criterion investigated because the assets rules are very complex and because there was considerable doubt that case managers would know the current financial assets of clients. Then, an intervention was conducted with one-half of the possibly eligible persons, whereby project staff (trained Linkage Workers) informed these Experimental condition participants about SSI, encouraged them to apply, assisted them with the application, provided transportation if needed, identified medical records, ensured that those records were submitted by providers of mental health services, and monitored progress.

The study was conducted in 1991 and published in Community Mental Health Journal during 1994. The essential features of the design are shown below:

•Three CMHCs screened their adult caseloads on citizenship, income, clinical criteria, and functional criteria to estimate those who were "Possibly Eligible" and "Probably Not Eligible" for SSI. The screening form was completed by case managers using optical mark reader technology.
•The Possibly Eligible participants were randomly assigned to an Experimental condition working with a trained linkage worker (funded by the project) who assisted the consumer to apply for SSI, or to a Control condition.
•Outcome data on applications and awards were collected from SSA at 6 months, 8 months, and 11 months after screening

The primary results of the study are described below:

•22.1% of Experimental participants applied, compared with 8.36% of Controls. Thus, Experimental participants were 2.64 times more likely to apply.
•7.59% of Experimental participants were awarded SSI, compared with 4.18% of Controls. Thus, Experimental subjects were 1.82 times more likely to be awarded SSI.
•Control subjects were 4.85 times more likely to be awarded SSI than the Probably Not Eligible participants (4.18% of Experimental participants were allowed, versus 0.86% of the "Probably Not Eligible" participants).

The actual number of applications and number of awards, for three time periods, are shown below:

	Experimental	Control	Not Eligible
6 Months:			
Applications:	63	20	11
Awards:	17	8	0
8 Months:			
Applications:	67	26	14
Awards:	22	12	2
11 Months:			
Applications:	67	26	14
Awards:	23	13	2

Rationale for a Follow-up Study using PSRDC Administrative Data and Death Index Data

These results, although interesting and encouraging, say nothing about the longer-term outcomes of this population. The SSA definition of disability assumes that problems will be long-term and may result in death. There is considerable research that establishes the risk of early mortality for individuals who experience severe and persistent mental illness. However, whether SSI reduces or increases the risk of mortality is unknown. Whether individuals who receive SSI payments maintain contact with treatment services is unknown. Given the opportunity to use administrative data housed at the Policy and Services Research Data Center to investigate the longer-term functioning of this population, the 2001-2002 AHCA contract with FMHI included a stipulation that a concept paper would be written and the PSRDC data would be investigated to see whether sufficient matches exist to determine the outcome of these individuals. The feasibility study conducted during FY2001-2002 indicated sufficient matches with the data available in the PSRDC to warrant further study. Thus, additional analyses were conducted.

Methods

Retrospective Data Cleaning and Reconceptualization of the Prior Study

Given improvements in computer software and in our understanding of Social Security rules and procedures, some retrospective data cleaning was possible. Specifically, using data collected

from the 1025 screening forms, it was determined that three "Social Security Numbers" were impossible, as those numbers have never been issued by the Social Security Administration, as of the available comparison point, which used the SSA high group codes for January of 2002—the earliest data that were available to project staff. In addition, it was determined that two people received services and were screened at two centers in the original study, which would produce an inappropriate double-weighting of those two individuals. Thus, one observation was dropped from each of these pairs, so the final sample consisted of 1020 individuals. (One person was in the Experimental condition at one center and the Control condition at another center, so the control observation was dropped. A second person was in the same condition at both centers, so we dropped the value that was from the center not affected by the first data deletion just described.) All remaining screening forms used Social Security Numbers that were possible, as determined by the SSA high group codes.

In addition, it now occurs to us that the Probably Not Eligible group from the original study should have been subdivided into three components—(1) those who appeared to meet the citizenship, clinical, and functional criteria for SSI, but had income that was too high, (2) those who did not meet the citizenship, clinical, or functional criteria, but did meet the income criteria, and (3) those who did not meet the citizenship, clinical, or functional criteria, and also had income that was too high. We believe that this reconceptualization of the study design will improve the interpretability of the results, as income level might decrease rapidly among some individuals with a serious clinical condition who are already showing poor functioning. Thus, the longer term outcomes of those ineligible *due only to income* might be quite different from those who were ineligible for citizenship, clinical, and/or functional reasons. Given these modifications, the design of the study is shown below, in Table 1, along with selected demographic information about the participants.

Participants

As shown below in Table 1, individuals who were randomly assigned to the Experimental or Control conditions were not meaningfully different from each other on any variable. These groups experienced serious mental disorders and showed clear deficits in functioning. Individuals in the Probably Not Eligible conditions did differ, as expected, according to the new sub-categories that we developed. The last three columns of the table show increasingly higher functioning individuals, moving from left to right. This report will focus on two important comparisons. First, is there evidence of a continued treatment effect (Experimental vs. Control)? Second, to what extent is the ultimate placement on SSI similar for the Control condition versus those who may have been eligible for all reasons except their reported income was too high? Our observation of individuals with severe and persistent mental illness, in treatment, is that available financial resources are often exhausted rapidly. Some of these individuals may have become eligible for SSDI or VA disability, although we have no way to tease apart those effects. If not eligible for these other programs, a strong comparison condition for longitudinal data concerns the Control condition compared with the PNE who simply had income too high at the time of screening to be eligible for SSI.

Table 1: Demographic and Clinical Information at Screening

	Possibly Eligible		**Probably Not Eligible**		
	Experimental Condition	Control Condition	Income too high, otherwise may qualify	Did not meet citizenship, clinical, and/or functional criteria, had low income	Did not meet citizenship, clinical, and/or functional criteria, had too much income
Variable:					
N	386	387	129	56	62
Married	17.7%	18.9%	34.1%	33.9%	35.5%
Male	56.1%	57.6%	48.1%	42.9%	41.9%
White	71.5%	65.6%	72.1%	64.3%	83.9%
Citizen	100%	100%	100%	71.4%	88.7%
Homeless	2.86%	2.07%	1.6%	0.0%	0%
Less than HS graduate	31.4%	35.7%	26.4%	32.1%	16.1%
HIV +	1.04%	1.55%	0%	0%	0%
Blind	0.26%	1.04%	0%	0%	0%
Psychotic Disorder	50.0%	50.8%	47.7%	32.1%	24.1%
Mood Disorder	36.01%	35.0%	39.1%	51.8%	58.1%
Substance Disorder	1.3%	2.07%	0.8%	0.0%	1.6%
Low Income	100%	100%	0%	100%	0%
Average Age (range)	42.2 (19.1 to 83.5)	43.4 (18.2 to 88.1)	47.2 (21.8 to 76.9)	43.3 (19.5 to 79.0)	44.6 (26.1 to 73.8)
Months since worked full-time	53.8	60.2	58.2	35.7	14.9

Functional Information from the Screening Form

The screening form included two types of functional information. The first was a simple rating scale adapted from two federal forms used by mental doctors to determine disability. The following six items were scaled as 0 for no and 1 for yes and rated by the case manager. The sum of these six disability items was used to indicate degree of functional impairment.

1. Does this client have markedly limited ability to understand and remember short and simple instructions?
2. Does this client have markedly limited ability to maintain concentration and attention?
3. Does this client have markedly limited ability to engage in activities of daily living, such as self-care, housework, food preparation, transportation, etc.?
4. Does this client have marked difficulty maintaining social functioning?
5. Does this client frequently have difficulty completing tasks in a timely manner because of deficiencies of concentration, persistence, or pace?
6. Has the client shown three or more episodes of deterioration or decompensation in a work or work-like setting?

In addition, a Global rating of disability was provided as follows:

> "Disability is defined as the inability to engage in any substantial gainful activity because of a medically determinable physical or mental impairment which can be expected to result in death or has lasted, or can be expected to last, for a continuous period of not less than 12 months." Using this definition, do you believe this client is disabled?

1. Definitely No
2. Possibly
3. Probably
4. Definitely Yes

Table 2: Group Averages on Functional Information from the Screening Form

	Possibly Eligible		**Probably Not Eligible**		
	Experimental Condition	Control Condition	Income too high, otherwise may qualify	Did not meet citizenship, clinical, and/or functional criteria, had low income	Did not meet citizenship, clinical, and/or functional criteria, had too much income
Functional Ratings (0 to 6)	2.55	2.46	2.28	0.59	0.48
Global Rating (1 to 4)	3.13	3.12	3.10	1.52	1.19

Across all individuals, the correlation of these two scales was $r = .57$, $p < .0001$.

Procedure for Analyzing Mortality Data

The Social Security Administration publishes death index information several times per year. Using information available for December 2002, we attempted to identify how many of the 1020 individuals in our study may have died. Using the WWW.rootsweb.com web page, which is part of an ancestry search service, each of the 1020 SSN from this study were entered. Initially, 173 individuals, or 17.0% of the population screened, appeared to be deceased. Available data from the web pages, including date of birth, date of death, first name, last name, and middle name were entered into a database and linked with the screening data. Unfortunately, some specific inconsistencies in the data were discovered. These problems were addressed by excluding 26 individuals from this analysis, as we are not sure that the people screened were the same as the individuals listed in the death index. Specifically, the first concern is that 17 of the SSN reportedly representing deceased individuals were said to have died before January of 1991, which is when the project began. Ten of these 17 died before 1980. Further examination of these data indicated that 15 out of 17 of these individuals had different birthdates than the individuals in our study. Almost one-half also had first names that appeared to be of a different gender than the gender reported on the screening form by the case manager in our study. Thus, it appears quite certain that 15 of these people listed in the death index database were not the people involved in this study, although they may have used the same SSN. One is an unexplained error—the person had been dead for 20 years and shared the same birth date and SSN with someone screened in our study. A second person may have died six weeks before the study began, and the case manager may not have known this yet. Given the obvious and irresolvable nature of these problems, each of these 17 individuals was excluded from the mortality analyses (removed from the numerator and denominator of any analysis). This left 156 individuals who may have died after the screening began in January of 1991. Of these, nine had significantly different birth dates or different genders than the data presented in the SSA death index, so these 9 were also dropped from the analysis of mortality. The remaining 147 deceased individuals were believed to be the same people screened in our study. Fully 128 of these matched exactly on SSN, date of birth, and apparent gender (judged from the name). Another 21 matched on SSN, apparent gender, and on all but one digit of the date of birth (never changing the date more than two years). Mortality data were considered valid on these 147 individuals. Those data are analyzed in the Results section.

Procedures for Using the Administrative Data in the PSRDC

A SAS dataset (SAS Institute, Inc.) of the 1020 SSN involved in the original study was merged into relevant production data sets in the PSRDC for FY1998-1999, FY1999-2000, FY2000-2001, and FY2001-2002. The Medicaid eligibility files and the Medicaid claims files were of primary interest, but other files such as Baker Act admissions and state hospital admissions were also of interest. All data with one of these SSN were extracted for subsequent analysis.

One of the primary variables was Medicaid program eligibility. For this study, the question was whether the person was on SSI during any part of the four-year follow-up period, and if not, was the person on Medicaid due to some other program? In Florida, the primary other programs are

TANF (previously called AFDC and WAGES) and the medically needy program. Determining whether someone is on SSI during a specific period can be quite complex. For the purpose of this study, a person was considered to be on SSI if the Medicaid eligibility files showed the PSRDC variable Pgmcd_CD to be one of the following codes: MI I, MI M, MM S, MS, MT D, MW A, NS, QMB, Pgmcd_CD, SLMB, MH S, MH H, or MI S. No minimum span of eligibility was required from the eligibility files.

Individuals who did not have any eligibility spans with any of these codes, but had other Medicaid eligibility codes, were considered to be on Medicaid only for other reasons.

Results

The mortality results are shown below:

Table 3: Mortality Results

	Possibly Eligible		**Probably Not Eligible**		
	Exp. Condition	Control Condition	Severe clinical and functional limits, too much income	Did not meet clinical and functional criteria, had low income	Did not meet clinical and functional criteria, and too much income
Number Screened (1020 total)	386	387	129	56	62
Number excluded from analysis (26 total)	12	10	2	2	0
Number and percent deceased (of nonexcluded)	53 (14.17%)	63 (16.71%)	21 (16.53%)	6 (11.11%)	4 (6.45%)
Average Age at Death	56.57	60.35	57.68	65.05	67.87
Average Age at Screening	50.54	54.46	50.85	58.27	59.66
Years to Death After Screening	6.0	5.9	6.8	6.8	8.2

Inferential statistical tests were also conducted on selected comparisons of interest. For example, even though the number of Experimental participants who died (53) appears to be less than the number of Control participants who died, this comparison was not significant according to χ^2 (1; N = 751) = 0.93, p = .33. Thus, this is an intriguing trend, but not a clear finding. Further

analysis of potential group differences in life expectancy at the time of screening will be necessary in order to interpret these results.

Medicaid Eligibility Results

The Medicaid eligibility results are shown below:

Table 4: Medicaid Eligibility and SSI Eligibility During the Follow-up Period

	Possibly Eligible		**Probably Not Eligible**		
	Experimental Condition	Control Condition	Severe clinical and functional limits, too much income	Did not meet clinical and functional criteria, had low income	Did not meet clinical and functional criteria, and too much income
N	386	387	129	56	62
On SSI	189 (49.0%)	157 (40.6%)	34 (26.4%)	18 (32.1%)	11 (17.7%)
Only Other Medicaid	7 (1.8%)	15 (3.9%)	4 (3.1%)	1 (1.8%)	1 (1.6%)
Total on Medicaid	196 (50.8%)	172 (44.4%)	38 (29.5%)	19 (33.9%)	12 (19.4%)
Not on Medicaid	190 (49.2%)	215 (55.6%)	91 (70.5%)	37 (66.1%)	50 (80.6%)

Inferential statistical tests were also conducted on selected comparisons of interest. For example, the number of Experimental participants who were on SSI at Follow-up (189) was significantly greater than the number of control participants who were on SSI (157), as determined by χ^2 (1; N = 773) = 5.51, p = .019. The planned comparison of the Control condition with the third column—those who had higher income but appeared to meet other criteria, showed that the rate of award for the control condition (40.6%) was significantly greater than the PNE condition just mentioned (26.4%), χ^2 (1; N = 516) = 8.38, p = .004.

Analysis of Baker Act Data During the Follow-up Period

Baker Act data, which is a record of short-term involuntary placement for evaluation purposes to determine possible involuntary placement for treatment and stabilization, is available in the PSRDC for the period April 1999 through February 2003. The SSNs of individuals in this study were linked with the Baker Act files and all data were retrieved. The number of individuals who had at least one Baker Act during this period is shown below. Given the increasing unavailability of Baker Act beds and the difficulty of maintaining service, it seems remarkable that around 20% of the population screened in January through March of 1991 who met the citizenship, clinical and functional criteria (first three columns) would require involuntary treatment 8 to 12 years later in Florida. This reflects the persistent nature of these conditions, and the significant likelihood of decompensation.

Table 5: Analysis of Available Baker Act Data During the Follow-up Period

	Possibly Eligible		Probably Not Eligible		
	Experimental Condition	Control Condition	Severe clinical and functional limits, too much income	Did not meet clinical and functional criteria, had low income	Did not meet clinical and functional criteria, and too much income
N	386	387	129	56	62
Baker Acted at Least Once	83 (21.5%)	62 (16.0%)	26 (20.2%)	7 (12.5%)	7 (11.3%)

Inferential statistical tests were also conducted. There was a tendency for the Experimental participants to be Baker-Acted slightly more often than the control condition, but this was technically not significant, χ^2 (1; N = 773) = 3.81, p = .051. The planned comparison of the Control condition with the third column—those who had higher income but appeared to meet other criteria, was not significant, χ^2 (1; N = 516) = 3.81, p = .28.

Analysis of State Hospital Data During the Follow-up Period

Similar analyses were conducted using state hospitalization data. The SSNs of individuals in this study were linked with the state hospital database and all data were retrieved. The number of individuals who had at least one hospitalization during this period is shown below.

Table 6: Analysis of Available State Hospitalization Data During the Follow-up Period

	Possibly Eligible		Probably Not Eligible		
	Experimental Condition	Control Condition	Severe clinical and functional limits, too much income	Did not meet clinical and functional criteria, had low income	Did not meet clinical and functional criteria, and too much income
N	386	387	129	56	62
Admitted to State Hospital at Least Once	42 (10.9%)	42 (10.9%)	12 (9.3%	2 (3.6%)	0 (0%)

There was no significant difference in the rate of hospitalization for Experimental vs. Control, or for Control vs. the PNE due only to income condition.

Discussion

Given the difficulties inherent in linking applied databases which use client identifiers (SSN, DOB, gender) that are sometimes not validated and may be prone to error or ambiguity, and given the presumed mobility of this population, it is striking that we were able to account for over one-half of the people in the original study during the follow-up period, in one or more of these applied databases. This suggests that the populations served by these three community mental health centers were largely experiencing severe and persistent mental illness that still required treatment many years later.

It is also noteworthy that the treatment effect was maintained through this follow-up period. Fully 189 people in the Experimental group were on SSI for at least part of the follow-up period, versus 157 in the Control condition. At the last point assessed in the prior study, which was 11 months after treatment, there were only 23 awards in the Experimental condition and 13 in the Control condition. The Experimental participants were 1.21 times more likely to have an award, compared with the control condition, at follow-up. This relative index showed evidence of a weaker treatment effect at follow-up compared with the initial period 11 months after screening, although in absolute terms, the difference in number of awards was 10 at 11 months and 32 at follow-up. Careful random assignment of individuals to condition was conducted by computer after the screening forms were turned in. One staff member trained, supervised, and funded by this project worked full-time at each of the centers conducting the intervention with only the Experimental participants who were assigned by the project investigators. Thus, in this tightly controlled design, the only explanation for significantly more awards in the Experimental condition at follow-up is the intervention itself.

It is also noteworthy that the proportion of individuals awarded SSI is so high, and that the proportions all increased significantly from the initial comparison point. There are at least four very likely explanations for the increased number of awards. First, as mentioned earlier, after being denied twice at the level of DDS, an individual may appeal to an Administrative Law Judge who uses different criteria. Few, and possibly none, of the individuals in the study reached the Hearings level (ALJ, Office of Hearings and Appeals) of consideration 11 months after screening. In fact, one of the stipulations in the RFP for this one-year funding opportunity was that the intervention must end prior to the Hearings level. As mentioned earlier, the Administrative Law Judge may freely combine mental and physical impairments and he or she may consider the number of jobs available in the local economy. Thus, many people who appeal, particularly those with a combination of mental and physical impairments, may get SSI on appeal, after being turned down twice by DDS. Many of the individuals in this study were on psychotropic medications. The long-term effects of some of these medications on weight gain, diabetes, and cardiovascular conditions is well-known. Second, when an applicant for disability is 50 years old, vocational rules apply within DDS procedures that allow the staff person to consider other factors, besides level of functioning due to mental disorders, in the decision. These vocational rules are very complex, but some of the factors that may be used in certain circumstances include secondary physical impairments, inability to speak English, inability to read or write English, lack of a high school education, and lack of a work history in the last 15 years before application. These vocational rules are now in effect for most of the people screened in 1991, because most are now over 50. Third, around 1999, procedural changes were

implemented by the SSA to introduce a special consideration procedure (C criteria) for individuals with schizophrenia, mood disorder, or organic impairment. Briefly, if individuals with these disorders are judged to be stable due to the effects of medication and/or a supportive environment, and there is judged risk of decompensation if work were to be required, the person may be awarded SSI independent of their current functional capacity. Fourth, by using a wide, four-year period for the follow-up comparison, it is easier to see the true involvement in this program, versus, any specific cross-sectional snapshot, which is affected by the many individuals who are temporarily taken off SSI (suspense status) or disenrolled when put in prison, the state hospital, or when they do not respond to written requests from DDS or SSA and are taken off due to "whereabouts unknown." For all of these reasons, it is not surprising that many more people were on SSI during some part of the follow-up period than at the eleven-month point.

The continued existence of a significant treatment effect was somewhat surprising. However, it may well be that the establishment of detailed medical records was quite influential on the ALJ, who may have limited formal knowledge of mental health conditions, which may have helped to maintain the original treatment effect. It is estimated that only 4% of individuals allowed under DDS or OHA procedures are taken off disability at the point of Continuing Disability Review (the mandatory reviews at 1, 3, or 7 years after allowance). Thus, once on the rolls, most people continue until death unless they notice improvement and choose not to be reevaluated.

Policy Implications

Further complex statistical analysis of these data will take place in preparation for a manuscript to be submitted for publication in a scholarly journal. However, at this point in time, several important policy-related conclusions may apply:

1. This study demonstrates clearly the persistent nature of severe mental illness. It also shows the important role that Medicaid plays in the treatment of severely mentally ill individuals. Although none of these individuals was reportedly on Medicaid at the time of screening, more than one-half were on Medicaid during the follow-up period 8 to 12 years later.

2. These results suggest that the aging of the "baby boomer" generation will cause a significant increase in the number of people on SSI. Although age was not the only factor, the passage of 11 years brought with it an 822% increase in the number of awards in the Experimental condition (23 to 189), and a 1208% increase in the Control condition (13 to 157).

3. The results of this study show that it is possible for case managers to determine, with some accuracy, who will get SSI. Overall, about one-half of the people who were seen as possibly eligible for SSI eventually received SSI. What makes this particularly impressive is that we intentionally made the screening criteria somewhat overinclusive.

4. Individuals who are ineligible for SSI *due only to income* are a special population deserving early intervention. At present, these applications are not forwarded to DDS for consideration of SSI eligibility. Some applicants may have worked enough in his or her lifetime to be eligible for SSDI, or they have special eligibility for SSDI due to the death of a spouse or parent who was eligible. Yet, logically, income is a "trailing variable." Whether talking about SSI, food stamps,

energy assistance programs, or eligibility for work force programs, workers who assist individuals apply for federal benefits often use a trailing computation procedure for determining eligibility. Thus, someone who currently has no income, yet made too much in the last year, last six months, or last quarter, is often denied. The feasibility of implementing a new procedure should be studied by SSA and possibly implemented in a pilot program, such that individuals with a ***projected income*** below the income criteria for SSI may be considered for benefits. This seems particularly important given the observation that many people with serious clinical and functional impairments who do not have current income will soon deplete any available resources from past earnings. Also, given that there is a resources evaluation, it may make more sense for the income evaluation to be based on projected earnings. The number of these individuals who may have received SSDI and eventually Medicare is unknown. This might be an appropriate follow-up study if Medicare eligibility data could be made available.

5. Consistent with the results of the original study, it is clear that applied mental health treatment programs should establish structured programs to help probably disabled individuals to apply for SSI. As noted in the original study, administrative and clinical staff at each of the three community mental health centers expressed doubts that such a focused intervention was necessary, as they maintained that normal case management activities including helping people to apply for SSI. Our study suggests that formal intervention with trained linkage workers, knowledgeable about this complex program, is beneficial.

6. The results of this study are consistent with anecdotal observations that procedures used by DDS for initial and reconsideration reviews are more stringent than the procedures used by ALJs, although we have no specific break-down of how these individuals came to be on SSI. An additional longitudinal study of this process is needed. Since the publication of our results in 1994, we are not aware of any study that has replicated these findings. Given the apparent duration of the treatment effect, the results of this study are quite striking and deserve further comment and replication.

References

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