RECOMMENDATIONS TO THE SOCIAL SECURITY ADMINISTRATION ON THE DESIGN OF THE MENTAL HEALTH TREATMENT STUDY (MHTS)

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> The low rate of employment for adults with mental illnesses is alarming. People with mental illnesses have one of the lowest rates of employment of any group with disabilities—only about 1 in 3 is employed. The loss of productivity and human potential is costly to society and tragically unnecessary.
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> — New Freedom Commission on Mental Health (2003, p. 29)

I. INTRODUCTION

Low employment rates among people with mental illnesses are especially troubling given that surveys show the majority of adults with serious mental illnesses actually want to work, and many of them *could* work with the right kinds of help. Unfortunately, limited treatment options in many communities across the country, and limited knowledge of such options, mean that many people with mental illnesses go without proper treatment or recovery-oriented, scientifically proven interventions (Hall et al. 2003). Even when they do receive some services, 30 to 50 percent report serious problems with the access, timeliness, quality, or safety of the care and supports,[1] and 40 percent report fear of losing health or disability income benefits as a barrier to work.

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[1] These include stigma and discrimination (45 percent); inadequate treatment of their mental health condition (28 percent); lack of vocational services (23 percent); and lack of transportation to job/employment services (20 percent) (Hall et al. 2003).

Many people with serious mental illnesses rely on government disability benefits to survive. Those that qualify can receive Supplemental Security Income (SSI), Social Security Disability Insurance (SSDI), or both (Bilder and Mechanic 2003). Administered by the Social Security Administration (SSA), the SSI program is a means-tested income assistance program, while SSDI is a social insurance program with benefits based on past earnings.[2] In a recent survey sponsored by the National Alliance for the Mentally Ill (NAMI), two-thirds of respondents with a mental disorder reported not working and over half were relying on public programs for cash assistance, health care, and other benefits (Hall et al. 2003). The vast majority (over 85 percent) was of working age and a majority reported a strong interest in working. Unfortunately, many SSI and SSDI beneficiaries live at or below the poverty line, and over the past decade the number of beneficiaries with psychiatric disabilities has increased faster than each program's overall growth rate. Individuals with serious mental illnesses now represent over a quarter (28 percent) of all SSDI recipients, and they account for the single largest diagnostic group (35 percent) on the SSI rolls.

Many beneficiaries with mental illness who have a strong desire to work nevertheless continue to seek the protection and security of disability benefits, not only because of the income such benefits provide but also for the health care coverage that comes with it. Further complicating matters is that few jobs available to people with mental illnesses have mental health care coverage, forcing individuals to choose between employment and access to care. These barriers, coupled with the limited treatment options described earlier and negative employer attitudes and even discrimination when it comes to employing people with serious metal illness, help "explain" the very rates of low labor force participation among people with psychiatric disabilities.

To investigate the extent to which beneficiaries with serious mental illness can indeed work, SSA has initiated the Mental Health Treatment Study (MHTS). Major advances in science and service delivery over the past two decades have led to a virtual revolution in how mental health and illness are

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[2] For a more detailed description of these programs, see Sections I and III of U.S. House of Representatives (2004).

understood and managed. At a time when the Surgeon General finds that less than one-third of adults with a diagnosable mental disorder receive treatment in any given year (US Department of Health and Human Services 1999), a range of effective, well-documented treatments have been developed and are now available.

The general goal of the MHTS is to determine the extent to which eliminating all programmatic work disincentives, establishing an accurate diagnosis (including identifying and treating any confounding mental/physical conditions), and delivering state-of-the-art mental health treatment along with appropriate employment supports leads to better employment outcomes (and other benefits) among people with serious mental illnesses receiving SSA disability benefits. The planned demonstration is authorized under Section 234 of the Social Security Act (42 U.S.C. 434).

The purpose of this report is to provide a summary of the first stage of the MHTS development, which includes an expert review of key issues and recommendations needed to support a pilot demonstration (and later a national study). This study is the first step of the demonstration's design stage and provides detailed recommendations on how best to implement and pilot the demonstration in six to eight states based on criteria developed by SSA and its federal partners.

For this initial phase the Urban Institute, under contract with SSA, identified and convened a high-level Technical Advisory Panel (TAP) charged with making initial recommendations on the general parameters of the MHTS, especially on the actual intervention or "treatment" services. The TAP was drawn from the fields of psychiatry, psychology, research, government, the nonprofit sector, the insurance industry, and consumer organizations. It included individuals with expertise in the following areas: mental health care financing, mental health treatment, research design, research ethics, state mental health systems, disability management, vocational rehabilitation, employment services, consumer perspectives, provider perspectives, employer perspectives, and disability benefits. The TAP members and an expert consultant included:

- **Deborah Becker**, Assistant Research Professor and Director of Supported Employment Programs, New Hampshire-Dartmouth Psychiatric Research Center, Dartmouth Medical School.

- **Dale Dutton**, CEO, Noble Solutions, Inc. and former National Director of the Commission on the Accreditation of Rehabilitation Facilities (CARF). He is also the parent of a young adult currently receiving SSI and DI.

- **Laurie Flynn**, Senior Research and Policy Associate, Division of Child and Adolescent Psychiatry, Columbia University College of Physicians and Surgeons, and former President of the National Alliance for the Mentally Ill (NAMI).

- **Kevin Hennessy**, Science to Service Coordinator for the Substance Abuse and Mental Health Services Administration (SAMHSA), U.S. Department of Health and Human Services.

- **David Mechanic**, University Professor and René Dubos Professor of Behavioral Sciences, Institute for Health, Health Care Policy and Aging Research, Rutgers University.

- **Daniel O'Brien**, Trainer/Program Coordinator, University of North Texas, Region VI Community Rehabilitation Program, Rehabilitation Continuing Education Program.

- **Thomas O'Connor**, Disability Management Consultant, O'Connor Associates.

- **Patricia Owens**, Health and Disability Programs Consultant, Board Member of the Disability Policy Panel of the National Academy of Social Insurance (NASI), and former Associate Commissioner for Disability, SSA.

- **Harold Pincus,** Professor and Executive Vice Chairman of Psychiatry, Western Psychiatric Institute and Clinic, University of Pittsburgh Medical Center.[3]

- **Sally Rogers**, Director of Research and Research Associate Professor, Center for Psychiatric Rehabilitation, Boston University.

- **John Rush**, Associate Professor and Director, Department of Psychiatry, University of Texas Southwestern Medical Center at Dallas.

SSA officials gave the TAP tremendous flexibility to develop a range of options under the MHTS with the primary goal of maximizing people's ability to work to their capacity, which may or may not result in them leaving the rolls. They noted that the demonstration could potentially lead to further programmatic and legislative changes, especially in light of the major social and economic costs of chronic unemployment among current beneficiaries.

SSA required that the TAP develop the parameters of the MHTS design under the following assumptions:

- The MHTS should target individuals with a mental illness who are receiving (or applying to receive) **SSDI**. Those receiving both SSDI and SSI can be included, but individuals receiving SSI only are *not* to be included;
- MHTS participants should have a **primary diagnosis of a serious mental illness**;
- The MHTS should cover **multiple states;** and
- MHTS services **need not be cost neutral** to SSA. In other words, the costs of treatment and supportive services need not be constrained to be less than or equal to any savings to SSA in reduced disability benefit payments.

The remainder of this report summarizes the options and design recommendations made by the TAP. The TAP convened three times over the course of this project, and additional input was provided via e-mail and telephone communications and through written materials and resources.[4] These activities led to recommendations for the MHTS target population (Section II), specific services to be delivered as part of the actual intervention (Section III), the structure and delivery of services (Section IV), and design suggestions for the next stage of the MHTS (Section V).

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[3] Dr. Pincus served as an expert consultant throughout the development activities and provided comments via regular telephone consultations.

[4] Agendas for all three meetings of the TAP are provided in Appendix C to this report.

II. THE MHTS TARGET POPULATION

SSA requested that the TAP consider a variety of options for defining who should be eligible to participate in the MHTS. The TAP considered a variety of target populations based on individual beneficiary characteristics; these included medical diagnosis, eligibility status (e.g., applicant, beneficiary), and other characteristics (e.g., work history).

At the final TAP meeting, SSA noted that the target population would likely be restricted to DI *beneficiaries,* though the TAP had considered *applicant groups* as promising candidates during the first two meetings. The discussion below focuses on DI beneficiaries as the target population, but also touches upon the advantages and disadvantages of including applicants.

A recurring question throughout the TAP meetings was whether the demonstration should target individuals (within the larger group of eligible participants) who are most likely to benefit from the intervention to maximize the impact of the demonstration (i.e., "cream"). Both the TAP and SSA believed that targeting the demonstration to an enriched sample might be the best way to demonstrate the intervention's efficacy, particularly in light of the limited effects of past return-to-work demonstrations. SSA was concerned, however, that if the demonstration was defined too narrowly, one could not generalize the findings to other populations and/or sites. Generally, efficacy research that relies on highly enriched samples has high internal validity but low external validity. There is no simple answer to this trade-off, and SSA suggested that at this point we simply consider multiple target populations.

The TAP did recommend that the target population be restricted to beneficiaries with a *primary* diagnosis of a mood/affective or psychotic disorder. As discussed in more detail below, these disorders account for about 85 percent of DI beneficiaries with SMI. People with secondary diagnoses of SMI were dropped from consideration because of the potential complexity of their needs and the chance that MHTS service providers may not be able to serve them properly. Finally, to the extent possible, they believed it made sense to *exclude* individuals who were known to be legally incompetent, or who had life threatening conditions or other conditions so severe or profound that they would clearly be unable to engage in competitive employment.

The remainder of this section reports the TAP's thinking and recommendations on what diagnoses to include, as well as potential options for selecting the target group based on program eligibility status. Other characteristics for enriching the sample, should SSA decide to do this, are also reviewed.

Diagnostic Categories

During the first meeting of the TAP, SSA staff presented background data on current DI beneficiaries. The data covered personal characteristics of DI beneficiaries and also patterns of application and awards (Table II.1).

Table II.1

Characteristics of Current DI Beneficiaries

(SSA-supplied data as of June 2003)

	Number (in 1,000s)	**Average Age at Entitlement**	**Average Years on DI**	**Average Earnings in 2002**
Schizophrenic/Paranoid Disorders-295.0	401	33.2	13.5	$0.96
Affective Disorders-296.0	814	40.9	7.5	$0.91
Anxiety Related Disorders-300.0	146	40.9	8.2	$0.91
Other	60	--	--	--
Total	**1,418**	**38.5**	**9.4**	**$0.93**

The data underscore the overrepresentation of schizophrenic and affective disorders among those with SMI (86 percent)—this was a major reason the TAP favored restricting the MHTS to these groups of individuals. The TAP also thought that including "other related" groups (less than 4 percent of those with SMI) in the target population might introduce too much heterogeneity into the study and complicate the evaluation. Finally, the TAP also eliminated anxiety related disorders on the grounds that many people with these are also likely to have a psychotic or affective disorder (which are included).

The data also reveal the relatively long-term program patterns and low earnings of this population. Because of these realities, any intervention that moves even a small share of people into employment could have a very large impact on the overall program. Beneficiaries with SMI are in their mid-40s to mid-50s, on average, and have been on the DI rolls for almost a decade. Their earnings while receiving DI are negligible (they average $1.00 a year) largely because only about 1 percent has any earned income during a calendar year, and those who do have earnings do not earn much.

It is also important to note that approximately one in four DI beneficiaries with a primary mental illness diagnosis is sufficiently poor that he or she concurrently receives SSI, which suggests that any demonstration that broadly targets this group will have to account for SSI receipt.[5] Given that the work rules of SSI differ from DI, benefits counseling, which is sufficiently complex for DI-only beneficiaries, will be especially important for those who receive SSI and DI concurrently (benefits counseling is discussed in more detail in the following section).

People with secondary impairments of a schizophrenia/paranoid or affective disorder were generally dropped from consideration, though SSA might consider adding some of these cases back into the target population *if* their primary diagnosis is an anxiety disorder. The general concern about adding people with secondary impairments of SMI was that the intervention was not necessarily equipped to deal directly with other impairments (see Section III), especially severe physical impairments. However, beneficiaries with a primary impairment of an anxiety disorder and a secondary impairment of schizophrenia/paranoid or a affective disorder could potentially benefit from the proposed services and, hence, be considered as an option for the target population, particularly if sample sizes are limited.

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[5] These data were presented by SSA during the first TAP meeting and are not shown in Table II.1.

Program Eligibility Status

The TAP also discussed the following options for when to recruit MHTS participants:

- **DI Beneficiaries**: The MHTS could target those already on the rolls. Additional criteria might be applied, such as length of DI receipt, recent work history, or work while on DI, to select the subset of DI beneficiaries most likely to respond to the demonstration with increased work.
- **DI Applicants**: The MHTS could target people during the DI application process.
- **Prior to Application**: The MHTS could target people at some point prior to applying for benefits.

Of these recruitment points, the "prior to application" option was immediately eliminated from consideration because SSA noted that it did not have the legal authority to serve these individuals.[6] Of the remaining two options, SSA favored targeting beneficiaries during the final TAP meeting because of the many challenges to recruiting and serving applicants.

Below, we first describe recruitment of DI beneficiaries since this group will certainly be part of the target population (we also discuss options for creaming within this population). We then briefly describe the "at application" options discussed at the meeting, and the potential difficulties of implementing these options based on the experience in the Early Intervention (EI) demonstration.

DI Beneficiaries

The primary candidates for inclusion in the MHTS are DI beneficiaries. They currently draw cash benefits every month, and after a two year waiting period are also eligible for Medicare. However, the TAP recognized that promoting employment among DI beneficiaries with SMI will be challenging. As noted earlier, less than 2 percent of DI beneficiaries have any earned income in a given year, and less than 1 percent leave the DI rolls due to excess earnings. Furthermore, DI beneficiaries typically go to great lengths to get on the rolls and are likely to lose significant work capacity while proving they are

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[6] For example, any option that targeted potential applicants (e.g., former Worker's Compensation beneficiaries) would have to be undertaken by another state or federal government agency that has authority to provide those services.

"unable to work at any job in the economy" as part of the application process. Finally, because of the complexities of the work rules, fears of triggering an overpayment, and the link to Medicare through DI, many beneficiaries are likely to be fearful of working while on the rolls.

Past experience in return-to-work demonstrations illustrates some of the challenges in promoting work among DI beneficiaries. For example, in Project NetWork, a randomized field experiment that tested four different return-to-work treatment modalities involving case management services, 10 percent of eligible beneficiaries expressed an interest in the program but only 5 percent actually participated in the demonstration. The average earnings of about $3,000 per year among participants were not enough to move a significant portion of people off the rolls. However, Project NetWork generated one important finding for MHTS—people with primary mental illness diagnoses were as likely as those with physical disabilities to express interest in work and participate in the demonstration, and the work-related outcomes (hours worked and earnings) of those who did participate were at least as good as outcomes for beneficiaries with physical disabilities.

Early results from the recently enacted Ticket to Work program also suggest very low participation rates. "Tickets" are SSA's promise to pay an employment assistance agency for helping a beneficiary find and keep work. Only 5,400 of the 9.5 million "tickets" issued have actually been used to access assistance in gaining employment (SSA 2004). Many possible reasons for this low uptake have been suggested, including (1) DI and SSI beneficiaries' disinterest in working; (2) their fear of losing cash and most especially health insurance benefits; and (3) the structure of the payment mechanism for employment assistance agencies, which offers too little, too late to attract most such agencies to serve this population, especially given their low probability of success.

The TAP discussed various options to select narrower target populations of DI beneficiaries that would potentially address some of these participation rates issues and increase the likelihood of a larger demonstration impact. However, as noted above, the tradeoff of narrowing the population is that the results could be less generalizable for future demonstrations and other populations.

A promising option for narrowing the target population is to look at program history. New beneficiaries are likely to have recent or extensive work experience compared to those on the rolls (see Table II.1). They are also likely to be younger given that the average duration of current beneficiaries with SMI is approximately 9 years. Another option is to limit (or stratify) the MHTS target population along the lines of what was done for the Affective Disorder Design: have three categories of length of time on DI (less than 2 years, 2-10 years, and 10 or more years) to account for program history, and to account for the overlap between DI and Medicare.

The TAP also discussed other variables related to work potential, such as work history, age, education, family supports, severity of diagnosis, and co-occurring substance abuse disorders. Not surprisingly based on past experience in other demonstrations, particularly Project NetWork, those with higher levels of education, recent work history, and lower reported health difficulties, are much more likely to participate and benefit from return-to-work interventions.[7]

While SSA left open the question of who specifically to target, it can readily estimate the sample sizes of different potential target groups from administrative records to further explore the feasibility of including them in the demonstration. Specifically, SSA could use administrative records to generate information on diagnosis, program history, age, and work experience of beneficiaries. This could also be used to determine the feasibility of implementing the MHTS in certain geographic areas. Other characteristics of possible interest (e.g., severity of diagnosis, co-occurring substance abuse problems, education, family support, etc.) cannot be gleaned from current administrative records, and would need to be determined as part of screening process should SSA like to use them.

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[7] It is important to note that if SSA chooses to go with a broader target population, the aforementioned characteristics would also be important in stratifying the heterogeneous population for an intervention.

DI Applicants

During its second meeting, the TAP discussed the many advantages of including DI applicants in the MHTS. They believed the effectiveness of the services would be higher at application relative to after allowance because participants would not have to wait several months (if not years) to receive services, nor would they have spent the considerable amount of time and energy it takes to demonstrate to SSA an inability to work.

From SSA's standpoint, it is important to recognize that there are several significant potential costs to this approach. One is an induced entry effect, meaning that some people may learn about the demonstration and apply for benefits simply in order to access MHTS services. Further, if the MHTS application process is accelerated relative to the normal decision-making process (which it would almost need to be), the intervention might serve some applicants who might not ever have become DI beneficiaries.

The TAP discussed various options for delivering services "at application." One option would build off an approach proposed by Disability Research Institute (DRI) (2002) for the Early Intervention (EI) demonstration project and identify applicants using a very short screening process. The DRI model would identify those likely to become beneficiaries and benefit from return-to-work services. People who participated would then receive an array of return-to-work services and temporary benefits in lieu of going through the current application process. Presumably, a similar model could be developed for MHTS. The TAP also described other options for targeting applicants, including identifying rejected applicants at the initial determination stage (who were likely to appeal) and/or those in the appeal process.

SSA is currently in the process of exploring the costs and benefits of providing services at application in the EI demonstration, and administrators believed it would be better for the MHTS not to target applicants at this point in time. However, if the EI demonstration is fielded and successful, it is possible that the MHTS could be modified and extended to some groups of applicants as well.

III. THE MHTS "INTERVENTION"

The primary task of the TAP was to make recommendations to SSA on the actual MHTS "intervention," meaning the types of supports and services that should be offered to participants. The TAP arrived at seven key decisions about the intervention. We list these decisions and then provide additional details below (specific approaches and protocols are also summarized in Appendix A):

1. The primary focus of all aspects of the intervention (including clinical services and supports) should be on promoting work.
2. Great care should be taken to (a) establish an accurate medical diagnosis (including secondary and/or confounding physical/mental medical conditions), (b) follow well-established treatment guidelines for the given diagnosis, and (c) attend to the effects of symptoms/impairments on executive and cognitive functioning rather than medical conditions/diagnoses.
3. The MHTS must adhere to established supported employment principles, specifically as exemplified in the Individual Placement and Support (or IPS) approach.
4. Clinical and employment supports must be fully integrated with one another (one set cannot be offered without the other).
5. The intervention should rely primarily on established "evidence-based practices."
6. All communities participating in the MHTS must serve the same target populations and adopt the same general approach (in other words, they cannot limit their intervention to only one diagnosis, to SSDI applicants only, etc.).
7. Given the challenges likely to be involved in recruiting participants, an important part of the intervention will be an education and training component during an orientation meeting. This meeting could also be used to obtain informed consent from participants and include any additional screening for the target population.

During the final meeting, the TAP strongly emphasized the need for specificity in defining the intervention. They suggested that the demonstration specify a set of services that builds off existing medical (e.g., Texas Medication Algorithm Project) and employment support models (Individual Placement and Support (IPS)). While these models included a specific set of services, the TAP believed they also offered enough flexibility to allow consumers to customize services to meet their individual needs and, hence, maximize their probability for securing and retaining employment.

Put Work First

The decision to put work at the heart and center of this intervention may seem simplistic and even obvious, but it has important implications for the entire intervention. This decision was made during a conversation about incentive structures, and the types of incentives that should be in place for service providers or brokers involved in the demonstration. It was generally agreed that because work (that is in line with the clients' goals and abilities) is the ultimate outcome of interest here, work is what all aspects of the intervention should be promoting. Even the clinical interventions should have the person's work goals and workplace functioning in mind, rather than more customary clinical and medical outcomes. The intervention should <u>not</u> have *as its goal* the delivery of state-of-the-art medical and/or vocational services, since these are not in and of themselves of interest. Rather the goal is to support participants' employment outcomes and draw on state-of-the-art medical and vocational supports as needed in meeting this goal. The distinction is subtle but important, and should be kept in mind throughout the various stages of designing and implementing the MHTS.

In addition to affecting the types of activities and outcomes the MHTS offers and how they are prioritized, the emphasis on work as the primary goal affects how one balances the therapeutic and detrimental pharmacological effects of a given medication. Often drugs produce both effects, with the therapeutic effects including the desired outcomes of taking a given prescribed medication (e.g., a decrease in the frequency and severity of episodes of depression after taking an antidepressant) and the detrimental effects often including unwanted side effects (e.g., dry mouth or constipation resulting from some antidepressant use). In some cases, the effects may be therapeutic from a medical viewpoint (e.g., stopping hallucinations or elevating mood) but not from a vocational viewpoint (a medication may sedate a person to the point where he or she cannot perform the job). Balancing these effects will need to be done with care.

It should also be noted that by work, we generally mean competitive employment. The Rehabilitation Act defines supported employment as competitive work in an integrated setting, where "competitive work" refers to work that pays at least minimum wage and at the same wages as those paid to persons with no disabilities who have similar job functions, and "an integrated setting" is a natural work setting where people without disabilities are also employed. The goal of another recent demonstration, the Employment Intervention Demonstration Program (EIDP), was to help participants with serious mental illness obtain and keep competitive employment.[8] The EIDP defined competitive employment as a job that paid minimum wage or higher; was located in a mainstream, integrated setting; was not set aside for mental health consumers; and was consumer owned (that is, not time limited—the person could keep working at the job as long as desired). Note that both these definitions focus on job characteristics, not on the presence or absence of supports, and both accept that a job can meet the "competitive" criterion and still offer its occupant a wide variety of supports to sustain employment. The TAP did suggest in certain cases, however, that some work might result in self-employment.

There are many dimensions to employment, and many measures of levels and quality of employment. Some of these are quite obvious, such as numbers of hours worked per week, weeks worked per year, hourly wage, number of jobs held in a year, availability of healthcare benefits, etc. Others are more refined. A variety of measures of work capacity among people with serious mental illness have been used in service programs and in research. Two specific concepts that have been proposed and used successfully are "vocational recovery" (as a specific element of the more general process of recovery from a disabling mental illness) and "vocational success" (which is distinguished from vocational recovery in that it reflects a person's status in society based on job position and earnings and not merely the capacity to work). Russinova and colleagues define "vocational recovery" as:

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[8] The EIDP was funded by the Center for Mental Health Services (CMHS), part of the Substance Abuse and Mental Health Services Administration (SAMHSA), to determine new ways of enhancing employment opportunities and quality of life for mental health consumers. It involved eight demonstration sites to study innovative models combining vocational rehabilitation with clinical services and supports. See http://www.psych.uic.edu/EIDP/default.htm for more information.

> … the outcome of preserving, regaining, and acquiring competitive employment after being affected by a serious mental illness. We propose a model of vocational recovery with two dimensions: (a) stability of workforce participation; and (b) degree of workforce participation. Stability of workforce participation reflects a person's capacity to sustain employment over time and is operationalized by the number of months of employment per year. We propose six months of employment per year as the recovery threshold for stability of workforce participation. The second dimension, degree of workforce participation, relates to the amount of time that is spent working and is operationalized by the number of work hours per week. We propose a recovery threshold of 10 hours per week, a level consistent with the SSA requirements for a trial work period (Russinova et al. 2002, p. 303).

Vocational success would pick up where vocational recovery ended, and be measured by earnings, job duration, speed of obtaining another job if one was lost, increased number of hours worked per week, receipt of benefits, job characteristics including job responsibilities, and ultimate achievement of job stability.

The MHTS may want to adopt outcome measures similar to those described here. Further specification of MHTS measures and possible thresholds or benchmarks to be achieved through the MHTS will need to be considered and are discussed in more detail in Section V.

Establish an Accurate Diagnosis

Given that so many people with mental illness have not had the benefit of an accurate diagnosis and assessment, TAP members readily agreed that the first step of the MHTS intervention should be to establish an accurate medical diagnosis along with any secondary and/or confounding physical or mental health conditions. Note that because participants are "screened in" on the basis of their having a primary diagnosis of a mood/affective or psychotic disorder, these same individuals may (after entering the demonstration) be found to have some other type of mental illness or condition, or even a physical condition that produces symptoms similar to those of mental illness. The MHTS should retain these individuals, offer treatments and supports appropriate for their true medical conditions and symptoms and employment goals (sites will need to be prepared for this possibility), and fully document all diagnostic, clinical, and vocational support activities.

Follow Well-Established Treatment Guidelines

A major element of the MHTS will be the availability and delivery of state-of the art clinical and vocational support services. The TAP was unanimous in thinking that newly developed and well-researched protocols for the treatment of affective and psychotic disorders be followed as part of this study. There are now several research-tested interventions that can improve quality of care and outcomes of outpatient care for people with depression and anxiety disorders. In general, these disease management guidelines are evidence-based, promote consistency of care, and include physician education, patient management, and patient/family education as well as medication algorithm practices.

A variety of evidence-based approaches have also been developed for diagnosing and treating the very large numbers of people with coexisting mental illness and substance use disorders that might be included in a potential target population. The latest review of research in this area suggests that between 50 and 75 percent of the people who use substance abuse treatment programs have co-occurring mental disorders, and clinicians in mental health settings report that between 20 and 50 percent of their clients have co-occurring substance use disorders. The Center for Substance Abuse Treatment (CSAT) within the Substance Abuse and Mental Health Services Administration (SAMHSA) has just reissued a Treatment Improvement Protocol (or TIP) on this population, and it includes discussions relating specifically to mood (affective) disorders and psychotic disorders (Center for Substance Abuse Treatment 2005).

The MHTS can build on the experience from related SMI projects that have fully developed protocols, including:

- The Texas Medication Algorithm Project, which has focused on three diagnoses: schizophrenia, bipolar disorder, and major depressive disorder;
- Sequenced Treatment Alternatives to Relieve Depression (STAR*D), a multi-site, prospective, sequentially randomized clinical trial of outpatients with nonpsychotic major depressive disorder; and

- The schizophrenia Patient Outcomes Research Team (PORT) Project.

Appendix A summarizes the protocols from these and other research projects that should be helpful in further defining the parameters of the intervention for a future design contract.

It is also important to remember that in assessing employment functioning and job retention needs, symptoms often are more important to consider than diagnosis (Rogers et al. 1997). The complexity of presenting features makes it difficult to understand the potential impact of one or more disorders on work. Many disorders are episodic or cyclical, so the course of the illness and functional status can change over time, making work capacity more difficult to assess and predict. People who experience residual symptoms that continue despite treatment and who experience significant difficulty in multiple areas (e.g., work, social relationships, living independently), are likely to require more intensive services and supports to access and maintain employment. O'Connor (2000) argues that one should move beyond impairments and even symptoms to focus on functional capacity, specifically executive and cognitive functioning. The supports should be geared to those features of an impairment or disability that get in the way of work, not on diagnoses and symptoms per se.

Adhere to Established Supported Employment Principles

There was wide consensus among TAP members that all services and supports delivered through the MHTS should adhere to the six established principles underpinning supported employment. "Supported employment" is a general term that refers to a variety of services and supports for individuals with the most severe mental disabilities (including psychiatric, mental retardation, learning disabilities, and traumatic brain injury) to facilitate competitive work in integrated work settings. Supported employment is intended for people who have traditionally not been able to enter (or stay in) competitive employment, and who, because of the nature and severity of their disability, may need ongoing support services in order to perform their job. These support services can include individualized supports such as job coaches, assistive technology, specialized job training, individually tailored supervision, transportation, or any service necessary for the worker to perform the job. These are generally provided at least twice a month, and last for the duration of employment. Many different models of supported employment have been developed over the last decade, but they all promote work, social interaction, and integration. A large and growing body of research suggests that supported employment, especially as exemplified by IPS, can lead to substantial vocational improvements among people with serious mental illness (see Figure 1 for a graphic summary of 12 randomized control trials (RCTs) of supported employment).

Several basic principles have emerged from the field of supported employment that were suggested for the MHTS including:

- Eligibility is based on consumer choice—no one is excluded who wants to participate.
- Supported employment is integrated with treatment—employment specialists coordinate plans with the treatment team and other service providers.
- Competitive employment is the goal—the focus is community jobs anyone can apply for that pay at least minimum wage, including part-time and full-time jobs.
- Job search starts soon after a consumer expresses interest in working—there are no requirements for completing extensive pre-employment assessment and training or intermediate work experiences (such as prevocational work units, transitional employment, or sheltered workshops).
- Follow-along supports are continuous—individualized supports to maintain employment continue as long as consumers want the assistance.
- Consumer preferences are important—choices and decisions about work and support are individualized based on the person's preferences, strengths, and experiences.
- Benefits counseling is part of the decision-making process—personalized benefits planning and guidance help consumers to make informed decisions about job starts and changes.

Appendix B summarizes a variety of well-developed resources available for designing, implementing, and monitoring effective supported employment programs, and IPS programs in particular.

Interestingly, Bond, Becker et al. (2001) do not view IPS as a distinct supported employment model. Rather, they see it "as a standardization of supported employment principles in programs for people with SMI, so that supported employment can be clearly described, scientifically studied, and implemented in new communities" (p. 347). The TAP generally agreed that by "supported employment" they meant IPS, and that this is what they recommend the MHTS offer treatment participants along with other benefits and supports.

Fully Integrate Clinical and Employment Supports

The integration of clinical and employment supports is one of the principles of supported employment, but the TAP felt it important enough to emphasize this point independently. What is meant by full integration? Full integration can be operationalized, measured, and tracked in a variety of ways. The EIDP, for example, defined the level of services integration as "high" when vocational and mental health services were delivered (1) by the same agency, (2) at the same location, (3) using a single case record, and (4) with regularly scheduled meetings of vocational and clinical providers (i.e., daily or no less than 3 times per week). The TAP did not specify any criteria for knowing when the intervention had achieved full integration, but *did* note that the MHTS should deliver both clinical and employment supports, and that they be fully integrated with one another.

As a starting point for discussing what some of the *specific* clinical and vocational supports might be, a part of the second TAP meeting was devoted to examining the types of services offered to participants in the EIDP. The services included the following:

Employment supports—

- Benefits Planning/Counseling
- Job Development/Finding (Client Specific)
- Job Development/Finding (Not Client Specific)
- Vocational Assessment/Evaluation
- Collaboration with an Employer (Client Specific)

- Collaboration with an Employer (Not Client Specific)
- Education of Co-workers (client-specific and more generally)
- Vocational Support Groups
- Volunteer Mentors (professional/peer support)
- Collaboration with Family/Friends
- Vocational Treatment Planning/Career Development
- Skills Training/Education (Off-Site)
- Vocational Counseling (Off-Site)
- Job Support (On-Site)
- Transportation

Diagnosis/Medications—

- Evaluation/Diagnosis
- Medication Evaluation/Maintenance
- Illness self-management/recovery

Clinical supports—

- Case Management
- Family/Couples Counseling
- Emergency Services
- Individual Counseling
- Group Counseling.[9]

The TAP added several important items to the original EIDP list and thought all of these should be available through MHTS (in addition to those listed above): volunteer peer mentors/support (Solomon

2004), ongoing benefits planning/counseling, education of co-workers, and illness self-management. They also emphasized the importance of having all MHTS sites actively include and serve participants with co-occurring alcohol and substance abuse disorders, and that *when possible,* providers may also want to offer family psycho-educational counseling and even supports for those participants who express interest in self-employment.

Rely on Evidence-Based Practices

In an effort to better describe the actual intervention offered through MHTS, the TAP noted that all sites should rely primarily on "evidence-based practices" (or EBPs). These are practices that research has found to be effective in treating serious mental health conditions (including co-occurring mental illness and substance abuse disorders) and/or in supporting the employment of people serious mental illnesses. Conclusions regarding evidence-based practices are generally reached after a systematic review of many different studies as well as the judgment of expert reviewers. Groups such as the Agency for Healthcare Research and Quality in the United States and the Cochrane Collaboration in the UK have established principles for determining the effectiveness of treatments, including:

- Randomized clinical trials improve the validity of causal conclusions;
- Replication of results in multiple settings improves the validity of results for actual practice;
- Consistency of findings builds confidence; and
- Evidence can be ranked in terms of validity, clinical confidence, and expert judgments.

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[9] Drawing on EIDP materials, the final pages of the agenda for the second TAP meeting include detailed descriptions of most of these services and supports (see Appendix C). The TAP also deleted one item (partial hospitalization program) from the original EIDP service list.

While there is a large and growing body of outcomes research that demonstrates the efficacy of a wide range of mental health treatments, it is also unfortunately clear that practice lags quite far behind research knowledge. In many communities across the country the knowledge and skills of practitioners and even mental health authorities do not reflect the most effective practices in treating people with SMI (Bond, Wehman and Wittenburg 2005; Lehman et al. 2004).

The large gap between research and practice has two important implications for the MHTS. First, communities participating in the project will need to demonstrate their knowledge of and capacity to deliver EBPs. Significant investments may need to be made in provider education/training and community-level capacity-building before an appropriate level of competence is achieved. Second, it is critical that the MHTS incorporate at the outset (and throughout the life of the demonstration) well-accepted measures of program fidelity, and use them routinely to provide feedback on adherence to the model as well as evidence of service delivery.

Fidelity scales have been developed for each of the six EBPs in mental health recognized by the Center for Mental Health Services within SAMHSA: supported employment (SE), assertive community treatment (ACT), illness management and recovery (IMR), family psychoeducation, integrated dual disorders treatment (IDDT), and medication management according to protocol (MedMAP). The scales each have about 15 to 30 items that measure critical aspects of the EBP and provide concrete indications if a program is implementing the practice as intended. One item on the Supported Employment Fidelity Scale, for example, concerns rapid job search and this item is rated as “fully implemented” if the average time between a participant’s admission to the supported employment program and his or her first job interview is one month or less.[10] One study found a strong correlation (.76) between fidelity as rated by the Supported Employment Fidelity Scale and competitive employment rates (Becker et al. 2001).

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[10] For more details on the Supported Employment Fidelity Scale (formerly known as the IPS Fidelity Scale) see Bond et al. (2001, 2000, and 1997).

While TAP members were clear that they wanted EBPs (and IPS in particular) at the center of the MHTS, they did not want to rule out effective innovative practices that could be evaluated and result in higher levels of employment in the MHTS target population. The TAP thought that other non-EBP practices should be allowed (assuming that EBPs were also offered widely) as long as: (1) they adhered to the other principles mentioned above, (2) they were clearly codified such that other practitioners/communities could adopt them, and (3) there was some evidence (even if only preliminary) that they were effective. While the TAP was generally supportive of a "whatever it takes" approach, it also stressed the importance of being able to apply all MHTS practices in other settings. That is, should the MHTS prove effective, it should be expandable and replicable. In general, the TAP thought that the MHTS should be based on "lots of EBPs spot-welded with less-established creative approaches," rather than vice versa.

Offer the Same General "Treatment" to All MHTS Participants

The TAP rejected the idea of some MHTS locations serving only one of the two diagnostic categories of interest, some sites offering only a subset of the supports and services available at other sites, or some sites targeting only one of the beneficiary statuses (at application or on the rolls). This uniformity simplifies the design insofar as the MHTS will not be "testing" different approaches with different people in a series of mini-demonstrations, as was the case, for example, with the EIDP. While variations are certainly likely from one site to another due to differences in geography, history, system capacity, local populations, and so on, many of the fundamental "variables" being tested are likely to be similar across sites. MHTS participants themselves are also likely to benefit from this parameter since not all treatments (even EBPs) are equally effective, and Lehman et al. (2004) concluded in their summary of EBPs for the Milbank Memorial Fund, "the wide array of effective treatments should be available within a community, because even when treatments are equally effective in general for the entire population, many of them are not equally effective for significant subgroups" (p. 19).

It is important to note, however, that just because all MHTS sites will *offer* a wide variety of EBPs and other services in line with supported employment principles, not all MHTS *participants* will necessarily adhere to state-of-the-art clinical treatments or employment supports they are offered. Supported employment principles put consumers at the center of their support/treatment plan ("choices and decisions about work and support are individualized based on the person's preferences, strengths, and experiences"), and individual participants may decide against what the field thinks is "best" or "evidence-based." This is, in effect, no different from the issue of treatment compliance in countless drug and other health protocol studies. The MHTS will need to allow for such possibilities, and fully document the types and levels of treatment and supports participants choose to receive.

Orientation Meeting: Education and Training

In its final meeting, the TAP acknowledged that recruiting participants for the MHTS is likely to be very challenging and to increase participation rates among eligible individuals, it is critical that potential participants be "assertively engaged" by educating and counseling them on the benefits and risks of participating.[11] Some of the risks are real: they may very well be assigned to the control group and not receive the variety of clinical and vocational supports available to other MHTS participants (some small incentive payment may need to be provided to this group). Other risks may be perceived and should be addressed by explaining the detailed "hold harmless" provisions and even individualized financial and benefits planning. Finally, great care will also be needed to ensure that this aspect of the recruitment procedures is similar across the MHTS sites. As will be discussed more in the next section, the orientation meeting will also be essential for informing participants about the benefits of the MHTS and the provider networks in their area.

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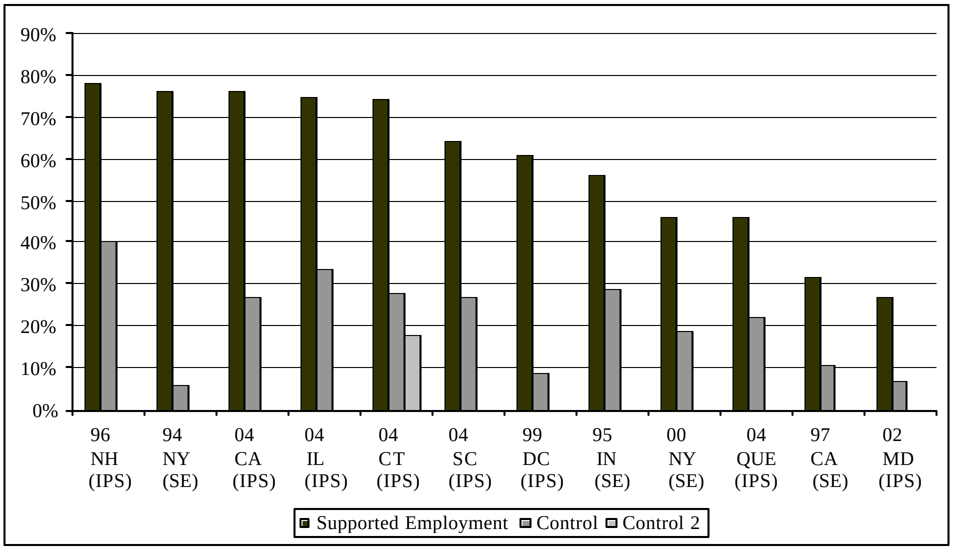
[11] This strategy was used quite successfully in the Oklahoma KEYS project, part of SSA's State Partnership Systems Change Initiative (SRI). Participants were actively recruited (in this case, by peer

Figure 1


Competitive Employment Rates in 12 RCTs of Supported Employment

Source: Bond, Gary R. (2004) "Critical Ingredients of Supported Employment: Research Evidence," paper presented at the UNC/Duke Mental Health Seminar, Durham, NC.

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support specialists) and were given work incentive education to reduce their fears about losing Social Security benefits (see O'Brien and Gardner 2005).

IV. HOW SHOULD SERVICES BE DELIVERED?

The TAP made several recommendations for delivering the set of services specified in Section III. These included:

- **Orientation Meeting:** The TAP suggested that participants enter the demonstration by attending an orientation meeting to obtain information on the benefits of participating and on provider networks in their area.
- **Provider Network:** Each site would have a network of providers that would provide the types of services offered under the MHTS. Ideally, each site will have two or more provider networks. The networks should be flexible enough to allow consumers to pull together their own menu of services.
- **Consumer Choice/Payment Options:** Consumers will be given a voucher to purchase services from the provider networks in their area. SSA could also provide additional direct payments to providers who meet certain employment and service delivery milestones.
- **Ensuring Fidelity to the Intervention/Two Stage Design:** The TAP suggested a two-stage design that would include a pilot of some test sites to deliver MHTS services and then the full demonstration rollout would occur at the sites that showed the highest degree of fidelity to the intervention.
- **Other:** The TAP also provided detailed comments in several areas on mechanisms to improve service delivery at each site that should be considered during the implementation of the demonstration.

Below, we provide a detailed review of each of these issues.

Orientation Meeting

As noted in Section III, participants will enter the MHTS during an orientation meeting, which would likely be operated by some contractor who would assist SSA in managing the program (similar to the responsibilities that Maximus currently has under the Ticket to Work Program). Presumably, this manager could conduct these meetings at each site, potentially even at SSA field offices. During the orientation meeting, those who are selected into the treatment group would receive detailed information on the provider networks in their area.

The TAP also strongly recommended providing upfront benefits counseling and support so that participants could fully understand the implications of working on their DI benefits and Medicare eligibility. This issue is of particular concern given the complexity of the DI work rules and the large number of DI overpayments that are triggered from return to work activities.

Provider Network

The TAP emphasized the importance of giving participants a range of options for psychiatric and employment-related supports. Offering a range of services allows the individual to select the elements that best suit his or her needs. The diversity of options will be especially important given the different needs/barriers of potential participants.

The TAP's assumption was that the full range of services it recommends for the MHTS would probably not be available within a single provider agency. It also expressed concern about the structure of "business as usual" in the service fields that would need to be integrated for the MHTS—at least mental health and employment, and probably also substance abuse treatment and other specialties. In the mental health field especially, services tend to come "bundled" as "what this agency offers," and clients must take all or nothing. Further, it is often difficult or impossible for someone who does not need to become a full agency client to access one aspect of the agency's services that might be particularly useful to that client. Other problems in service delivery noted by the TAP included duplicative or unnecessary services, as well as service "silos" where some supports (e.g., substance abuse treatment services) are completely isolated from mental health treatment and supported employment services. The TAP expressed a strong desire to shake up this "business as usual" structure by having the MHTS offer a full menu of services that could be tailored to the individual and delivered regardless of which provider supplied which components.

Given the TAP's expectation that no single agency in any community would be able to offer high quality versions of the full range of possible services and supports, the commitment to offering a menu of services and the need to tailor a unique package for each individual implies that the MHTS will need to make services available through a network of several providers. Further, this network will have to have some mechanisms for assuring that services form a coherent and integrated package. That is, the network needs to be far more than the typical information and referral service. Presumably, providers who came together to form a network would have to demonstrate to SSA how they could deliver the unique set of services in an integrated setting.

The TAP felt the actual service delivery structures, the types of programs and agencies included in service networks, would probably vary within sites, as communities develop unique approaches to address barriers. It would be particularly important not to limit communities to pre-specified service configurations, which might not work equally well in all communities. Rather, provider networks applying to be MHTS sites should have the flexibility to set up their networks in the way best suited to their service structure and interested agencies, as long as the basic premises of the MHTS are met.

The TAP also raised the issue of whether the MHTS should select or specify particular service models such as Assertive Community Treatment, clubhouses, or psychosocial rehabilitation. After some discussion, the TAP recommended that a wide variety of organizations and program models could participate in an MHTS service network, *as long as* each one and the network as a whole adhere to accepted supported employment principles. Thus the decision is that the setting of service delivery does not matter IF any provider offering services to MHTS participants complies with the principles established for the demonstration, offers unbundled services, and participates in integrated service delivery across mental health and employment services and any other needed supports (e.g., substance abuse treatment and follow-up supports).

The TAP did note, however, that the MHTS needed to manifest a set of vocational services beyond traditional presentations of supported employment generally available in most U.S. communities. The TAP agreed that the MHTS service provider network be primarily vocationally focused (versus clinical) and be function-oriented in assessing client disability and return-to-work service delivery. Because of this functional orientation to disability, the TAP emphasized the value of nontraditional players (e.g., private sector behavioral health providers and disability insurers) in this initiative. They also noted that MHTS services should be able to serve "atypical consumers," particularly individuals with serious and persistent mental illness who have completed college level education, have held professional and paraprofessional jobs, have not disclosed their mental illnesses widely within a community mental health service system, and/or who are more likely to receive mental health services in the private sector provider network.

Consumer Choice/Payment Options

During the final meeting, the TAP strongly favored the use of vouchers to emphasize consumer choice and control in every aspect of personal direction and service selection (a core supported employment principle). One option could be to allow the vouchers to take on a monthly capitated amount. Presumably, the amount of the payment could then be adjusted throughout the demonstration. The TAP believed this control would increase both accountability and efficiency in service delivery.

The TAP also suggested that SSA consider providing incentive payments to provider networks that reach certain service delivery and employment outcomes. These payments would further underscore the goals of service integration across medical and vocational supports, as well as strongly emphasize the goal of promoting employment. The Oklahoma KEYS to Employment project provides an example of how these payments could be structured for different supported employment milestones (O'Brien and Gardner 2005).

Ensuring Fidelity to the Intervention/Two Stage Design

Because establishing functioning integrated service networks as the TAP recommends is difficult, the TAP raised the possibility that SSA might find it judicious to establish the MHTS demonstrations in two stages. They suggested that SSA might begin with more sites than it expects will be included in the actual demonstration. The first stage would be for up to a year or perhaps even 18 months. Each community participating in this stage would have a functioning set of service delivery networks and would be evaluated based on their fidelity to both supported employment principles and evidence-based practices. During the second stage, SSA would select a smaller number of the sites showing the greatest fidelity to the MHTS design to pursue the formal demonstration.

Other Related Concerns and Suggestions

The TAP's discussion of how the MHTS should be structured focused on the necessary mechanisms and potential location characteristics for delivering intervention services. TAP members described the potential challenges that providers could face in the demonstration and the ability of providers to meet those challenges. They also suggested ways to communicate the benefits of the demonstration to the target population, especially using easy to follow functional language. Other TAP members discussed the aspects of using these services from a person with SMI's perspective, and the importance of working with employers, which raised several interesting and important issues around disclosure that the group discussed extensively.[12] No recommendations came out of this discussion, but the following general points are worth noting for consideration during the MHTS design phase:

1. Individualization is paramount; no single prescriptive package will work for all.
2. Flexibility is essential. Early involvement with participants will probably be the most intense period, but supports will need to come back in as jobs are lost and new ones found.
3. "Disclosure" is a package of issues that will affect how programs are structured, whether a project can use a job developer, whether a job coach can work with an employer/ supervisor/coworkers or not, etc. The intervention will have to exercise great discretion with respect to disclosure, which must follow the desires of each consumer rather than an "intervention" standard. The decisions around disclosure will have important implications for interactions with employers. The group also noted there are different types of disclosure, and not all disclosure means discussing a diagnosis directly with an employer.
4. For employment supports, regular office hours (9-5, Monday through Friday) do not work, especially when you are trying to help clients keep jobs they already have. People get nervous on Sunday nights, facing going to work on Monday, and staff must be available to help them work through these moments.

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[12] See Ralph (2002) for a discussion of this issue from one consumer's perspective.

5. The employment counselor needs to understand the consumer's mental health status and the treatment being given for it, as well as understanding employer concerns, attitudes, and preferred approaches. The employment counselor needs to think about being as much of a help to the employer as to the consumer.

6. The intervention also needs to be able to help consumers with interpersonal issues on the job, which often are more important for employment retention than actual job techniques.

7. Short-terms supports do not work – the people being targeted lose jobs regularly, especially at first (average job tenure in EIDP was under 6 months).

8. Service providers need to use functional language, not disease language. For example, one should talk about what the person needs to do and what accommodations or help the person needs to do it – not symptoms, medications, or anything else disease-related.

9. Private sector efforts to keep people with SMI in jobs have some insights to offer: (1) keep time off job as short as possible, preferably none; (2) almost all intervention activities are cognitive-behavioral, training people to communicate in functional language, doing skills training for technical skills, adaptive (self-management) skills, employer-need-focus (ask what employer needs from me); (3) mentor is useful, someone in workplace who offers support.

10. Advocate perspective that at almost every point (working, applying for benefits, getting mental health treatment, etc.) the people who need the help the most drop out. They often lack family and financial resources that could help them navigate the various systems long enough and effectively enough to get what they need. People may find themselves adopting a "career" as mental patient because it is the only one available to them, or the only one that they can achieve without help.

11. From the consumer/advocate perspective, two critical needs are correct diagnosis and treatment, and integrated mental health, employment, and also substance abuse services. Having options is important, so too is having people expect things of them rather than expecting them to do nothing.

12. Any treatment "team" needs to involve family and peers, if they are available. Finding and involving the key one or two people who will "be there" for a consumer may do more to support a successful outcome than a good deal of more formal intervention.

V. DESIGN RECOMMENDATIONS

The overall goal of the MHTS is to demonstrate the ability of integrated mental health and employment services to increase work among people with serious mental illnesses receiving SSA disability benefits, and similar individuals applying for benefits. In addition to the decisions and recommendations described in previous sections, several recommendations for the overall design emerged from the TAP discussions. These recommendations grew out of SSA's goals for the MHTS, as well as the TAP's recognition that a strong evaluation design will be needed to convince others of the validity of the findings and to inform future policy development. We review the design recommendations described earlier (noting from which section of the report they are drawn) and then turn to some additional design-related issues.

In earlier sections, we identified several general design recommendations, including:

- **Single MHTS Goal:** Employment is the primary goal (Sections I).
- **Similar Services and People at all Sites:** Every MHTS site will offer the same general package of services to the same types of people. Participants will also have a choice of services and providers, and all aspects of the intervention should be geared to maximize the primary goal, namely employment (Section III).
- **Costs/Benefits:** The costs of the MHTS are likely to be substantial, and the demonstration does not have to be cost neutral to SSA (i.e., the costs of the demonstration can exceed any reduction in outlays for benefits) (Sections I and III).

In addition to these recommendations, the TAP identified three additional design parameters:

- **Two Stage Design (Experimental Design Options):** The MHTS should be implemented in two stages. As noted in Section IV, the first stage will be used to examine both the service delivery and research capabilities of individual sites (and to give them time to develop these capabilities). Additionally, it will be used to assess the feasibility of a randomized design at different sites, including whether there would be a sufficient sample size of target group participants (and providers) for a full evaluation. The second stage will include the full demonstration roll-out.

- **Hold Harmless Provision:** The TAP noted that the MHTS would have to "hold harmless" all participants, meaning that participants will have to be assured they would be no worse off from participating than they would be if they decided not to participate. Holding participants harmless will be an absolute requirement of any Institutional Review Board charged with the responsibility of ensuring that the research adequately protects all human subjects involved in the study.

- **Outcome Measure Options**: The TAP noted that the MHTS would need precise measures of employment outcomes, which will be important in defining the goals for the evaluation, as well as payment incentives for providers. They discussed a number of possible measures.

Below, we summarize each of these recommendations and then provide a general summary of the parameters for the overall demonstration design recommended by the TAP.

Two Stage Design (Experimental Design Options)

The TAP strongly encouraged using a two-stage design to refine the final parameters of the demonstration. The first stage, which would last up to a year, would be a pilot at a select number of sites. The findings from this stage would then be used to inform a second stage full rollout of the demonstration, presumably at a subsample of the initial pilot sites that were best suited to deliver the specified intervention services and meet the overall evaluation needs of the demonstration.

The pilot stage would be essential for assessing each site's capability to develop an experimental design in addition to assessing provider service delivery capabilities/feasibility described in Section IV. The TAP did have some concerns about the feasibility of conducting an experimental design given the heterogeneity of the target population and services at each site. Consequently, while they favored an experimental approach, they left open the question of whether the demonstration should be tested using random assignment until more information could be gathered from the pilot.

There will be two key elements in assessing the feasibility of conducting a random assignment demonstration that should be addressed during this pilot. First, SSA and the implementation contractor will need to assess whether the service providers "buy into" the concept of random assignment. Based on past experience, some providers might resist this concept. To avoid these problems, SSA will likely need to write its RFP for provider networks very carefully, stating the potential for random assignment. Should random assignment be implemented, SSA and the implementation contractor will also need to follow up with provider networks during the demonstration to assure providers are adhering to the guidelines. Second, SSA and the implementation contractor will need to assess whether a sufficient sample size can be generated to control for the different sources of heterogeneity in the target population and service providers. Because the TAP believed service providers would likely vary significantly across sites, they recommended each site have a large enough sample of cases that it could be tested on its own. They also noted that the sample size requirements to generate a test of sufficient power for any experimental design grow with the size of the target population.[13]

Even if a randomized study is not feasible, the TAP believed a full roll-out of a non-experimental or quasi-experimental study would provide very rich information on the demonstration, particularly given how low employment rates are among current beneficiaries. In fact, a non-experimental study would be preferable to an experimental study if there were strong concerns from the pilot that the sample sizes would not be sufficiently large for a power analysis.[14]

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[13] The Project NetWork experience is informative on the size of the potential eligible population that will need to be screened for a randomized design. Participation rates—i.e., the share of eligible individuals asked to participate who actually agreed to participate in the demonstration—were very low in Project NetWork. Because of this, field staff had to solicit a large number of potential eligibles—145,000 individuals—to achieve the desired sample sizes. Abt Associates (1999), the evaluation contractor, reported substantial variation across sites in the number of eligibles invited to participate to achieve this goal (the range was from under 10,000 to 25,000 beneficiaries).

[14] To illustrate the importance of this tradeoff, imagine a study of lesser size and the outcome that might be derived from the MHTS. The world—and SSA—would likely see this evaluation as a full test of the optimal set of treatments for people with SMI in SSA programs. The problem is that this view will stand regardless of how weak the study becomes in terms of sample size if an adequate sample is not formed for the demonstration. An evaluation incapable of finding (or at least statistically very unlikely to find), say, a two to three percentage point gain in employment because of the MHTS will be taken as evidence that any intervention of this type for the target population does not work. A contrasting study, with samples set adequately at the level proposed under this assumption, would quite likely lead to the opposite (and appropriate) conclusion—MHTS moves people with SMI forward toward increased self-sufficiency. Ironically, from a policy standpoint, a study of insufficient size could prove worse than no study at all. As SSA's "best shot" at documenting MHTS achievements on a widely accepted basis—and of finding ways

Hold Harmless Provisions

As with all other SSA demonstrations, this demonstration should ensure that all DI applicants and/or beneficiaries who agree to participate will be "held harmless" for their participation in the demonstration. This provision essentially requires that the receipt of MHTS services will in no way make a recipient worse off than had s/he decided not to participate.

The details of how participants will be held harmless will have to be developed later, but they may involve securing waivers for certain programs. For DI beneficiaries, SSA might consider obtaining waivers to protect the Medicare eligibility of treatment group participants whose earnings rise above SGA for extended periods.[15] SSA will also need to consider potential interactions between the MHTS and the Ticket to Work program. For example, if treatment group members use services from the MHTS and the Ticket to Work program but are allowed to have earnings above SGA without any loss in benefits, SSA will need to find some mechanism to pay Ticket Employment Network (EN) providers, who are reimbursed when a beneficiary leaves the rolls. The current benefit offset demonstration is dealing with similar provisions that could be used as a guide for the MHTS.

Measuring the Employment Outcome

SSA representatives clearly identified the primary goal of the MHTS as promoting employment among DI beneficiaries. They emphasized that maximizing employment was open to broad interpretation and was not limited to DI beneficiaries who leave the rolls.

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to improve the program for the future—the risk of reaching the wrong conclusion because of insufficient investment in sample underscores the importance of obtaining an adequate sample size for the MHTS.

[15] Should SSA target applicants, they will have to create special hold harmless provisions for this group. For example, for DI applicants, the MHTS will need to ensure that potential MHTS participants are given the choice of voluntarily participating in the demonstration or continuing with the current SSA disability determination process.

It is important to identify a clear set of outcomes for the demonstration to clarify the goals of the evaluation, as well as to set some of the parameters for the intervention. For the evaluation, it will be important for SSA to define successful benchmarks, particularly given that the demonstration will not be cost neutral to the trust fund. One TAP member estimated that the cost of services could be approximately $1,000 per month, though these costs could decline over time. Given the large investment and the relatively limited potential for the intervention to move beneficiaries off the rolls (and hence, accrue savings to the trust fund), clarifying both short-term and long-term goals will help policymakers better understand the progress under the MHTS. Additionally, carefully selecting important employment benchmarks will provide some insights on the type of payment incentives SSA should consider giving to providers who meet certain milestones for service delivery or outcomes (see Section IV).

To meet this objective, the TAP focused on intervention options that broadly targeted employment as a primary outcome. While several SSA demonstrations have focused on the promotion of employment, the proposed MHTS is unique in that a "successful" employment outcome simply means "some or more work," and does not necessarily mean achieving SGA or cost savings to the trust fund.

"Successful employment outcomes" are not easily defined for people with serious mental illness, as most will do poorly on the usual outcome measures used on most employment demonstrations of those without disabilities. While many people with SMI want to work, their ability to reach the level of earnings for self-sufficiency may be limited. Nonetheless, as we saw in Figure 1, numerous studies have now shown that work levels can be increased even among those with the most severe disabilities.

SSA can choose from a variety of employment benchmarks in setting goals for the overall demonstration, some of which are identified in Section III above. Some employment outcomes take account of work activity (e.g., earnings), whereas others take account of job quality and duration (e.g., job tenure). The TAP identified several possible measures for an evaluation, including working at all, hours per week, increased hours, wages/salary, increased wages/salary, annual earnings, days per year worked (hopefully increasing working time and reducing time without work), longer job tenure, job fit/"found right niche," job quality, job satisfaction, and benefits (health insurance). The most common measures used in past evaluations include the percentage obtaining competitive employment (defined in Section III) or self-employment, total wages earned, and number of weeks worked (Bond, Wehman, and Wittenburg 2005). Because the MHTS does not have a specific requirement that the employment reduce benefit payments, SSA can choose from a variety of options in setting general employment targets for an evaluation.

The TAP believed that whichever employment outcomes are chosen, SSA should structure the outcomes to account for a gradual progression into employment. Participants would likely need on-going support on a periodic (and often unpredictable) basis to accommodate the episodic nature of their illness. Additionally, the transition into the labor market might start with a small attachment that progresses until the participant becomes more comfortable in working and accessing supports. Therefore, any intervention and evaluation of the demonstration must occur over a period sufficiently long for the full effects of the treatment to be absorbed by participants and observed by evaluators.

Summary

The final design suggested by the TAP includes an intervention that delivers an integrated set of medical and employment supports that can be implemented with enough fidelity for a rigorous evaluation. The TAP generally favored networks of providers coming together to provide services in a particular area and that providers at different sites should have flexibility in coming up with their own networks. To connect this activity to participants, the TAP also added an orientation activity that would be part of the intervention to inform participants of the advantages of participating in the MHTS. During the orientation meeting, potential participants would receive a list of provider networks in their area that they could contact and received detailed information on benefits planning. Participants would purchase these services using a voucher, which would have a capitated monthly payment. The TAP suggested that SSA also provide additional incentives (independent of the voucher) to providers who met certain milestones regarding the integration of services and outcomes of participants.

The TAP presented several options for the target population for the demonstration, which would likely include beneficiaries. SSA will make a final determination on the target population based on their own internal needs to demonstrate the results to a larger audience.

The demonstration should be implemented in two stages. The first stage of the design would continue to be a pilot to assess provider capabilities. During this stage, SSA and the implementation contractor would assess each site's capabilities in providing services. However, the first stage would also be important for assessing each site's capabilities in developing an experimental design. While the TAP was still interested in an experimental design, they recognized that some features of the intervention and the target population could complicate a randomized study.

If successful, the demonstration would improve the employment outcomes of the target population. Over time, some beneficiaries might even leave the rolls completely. In the short run, the costs of the demonstration will likely be quite large—potentially as high as $10-12,000 per participant per year (based on rough cost combined estimates from the EIDP demonstration for providing employment supports and medical support models from the Texas Medication Algorithm Project).[16] While the demonstration will not necessarily be cost neutral to the trust fund by reducing DI benefits, it could generate significant savings in other areas, especially medical expenses if successful participants are more likely to continue with their prescribed treatments. Consequently, any evaluation of the MHTS will need to collect reliable data on employment and a variety of non-employment outcomes that could likely be influenced in the demonstration, especially medical costs and changes in health care costs. Additionally, the evaluation must account for both short-run and long-run changes given that the demonstration could have a lasting impact over several years that offset short-run costs.

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[16] Specific estimates would need to be described in the design phase of the MHTS.

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APPENDIX A: SUMMARY OF LITERATURE ON CLINICAL INTERVENTIONS

The proposed MHTS intervention incorporates recent research concerning the treatment of serious mental illnesses in outpatient settings. This appendix summarizes this research, synthesizing key considerations in developing the MHTS model.

Treatment Guidelines and Disease Management

The concept of evidence-based treatment guidelines has gained increasing attention and support in all fields of medicine. The first evidence-based guidelines for treatment of depression were published in 1993 by the Agency for Healthcare Research and Quality (AHRQ 1993). Currently, large Health Maintenance Organizations (HMOs), the American Psychiatric Association, the Veterans Administration, and others are developing and implementing specific treatment guidelines for psychiatric patients (Dennehy et al. 2004). There are now several research-tested interventions that can improve quality of care and outcomes of primary care patients with depression and anxiety (Katon et al. 2004).

Studies reviewed in this appendix address the following diagnoses: depression, schizophrenia, and bipolar disorder. These are all debilitating diseases, even under good treatment conditions. Since no one treatment is a panacea, clinicians often use a sequence of treatment steps to increase the likelihood of response or remission. Other commonly used terms for these specific care management plans or guidelines include "preferred practices," "clinical pathways," "best practices," and "clinical algorithms." As described in this brief review of the literature, disease management plans, based on evidence-based practices, seem to have positive outcomes for those with severe mental illness.

Disease management plans incorporate both provider and patient/family education. Studies in other areas of medicine have revealed that merely disseminating guidelines to physicians often results in minimal effects on daily practice behaviors—support systems must be put in place as well. A disease management program generally includes:

- Medication algorithms;

- Patient education;
- Medical documentation enhancements;
- Expert consultation; and
- Clinical support.

Dennehy et al. (2004) state that guidelines should:

- Optimize symptom reduction in a majority of patients;
- Assist patients to make more informed decisions; and
- Set standards for minimum expectations of health care delivery

Guidelines/algorithms require updating when significant new evidence emerges. Miller and colleagues (2004) report on recommendations developed in 2003 by a group of experts, clinicians, and administrators to update the 1999 antipsychotic algorithm for schizophrenia. In addition to the medication algorithms, clinical procedures manuals covering most aspects of medication management were also updated. Currently, the anti-psychotic algorithm for schizophrenia is being used throughout the Texas public mental health system. In addition, clinicians in 14 other states and the District of Columbia have been trained on its use. The process described by Miller et al. (2004) for updating the algorithms provides a good example of consensus development using available evidence-based research.

Prior to convening, each expert was assigned a topic for literature and presentation at the update conference. Experts were asked to grade recommendations according to the system developed by the Agency for Healthcare Research and Quality (AHRQ) to develop guidelines:

- Level A — recommendations based on randomized, blinded, and placebo-controlled trials
- Level B — recommendations based on open controlled trials and/or large case series
- Level C — recommendations are based on smaller case series and case reports

Whenever possible, recommendations were based on empirical evidence, but when inadequate data were available, decisions were based on clinical and expert consensus. Group consensus recommendations were categorized as weak, moderate, or strong, based on the level of evidence. Owing to the lack of data, many of the recommendations are based on expert consensus. The authors (Miller et al. 2004, p. 506) comment that “One might argue that it is preferable to construct algorithms based solely on level A evidence. Experience in training clinicians, however, has been that they opt for a guiding framework that incorporates expert opinion in dealing with difficult clinical questions, in the absence of definitive evidence."

Examples of Demonstrations and Findings

A number of major demonstrations test disease management in "natural" settings (e.g., outpatient community mental health centers or primary care settings), distinguishing them from drug efficacy studies in clinical trials.

The **Texas Medication Algorithm Project (TMAP)** was a rigorous demonstration of the implementation of step-wise decision trees for specific psychiatric diagnoses in public mental health treatment centers. The algorithms were subsequently implemented throughout Texas, and are being used in other states as well. TMAP addressed three diagnoses: schizophrenia, bipolar disorder (BD), and major depressive disorder (MDD). The algorithms developed were evidence-based and emphasized consistency of care across individual providers and demonstration sites. TMAP assumed that decreasing practice variance and increasing proper selection and dosing of medications would improve clinical outcomes and/or contain costs. It was hypothesized that improved symptom outcomes should lead to healthier patients who require fewer mental and general medical services in the long term–thus offsetting part of the program costs and enhancing cost effectiveness.

TMAP is actually a study of a bundle of interventions and not just the effect of medication algorithms. The intervention included physician education, patient management, and patient/family education as well as the medication algorithms. The demonstration was conducted at 19 outpatient mental health clinics operated by 7 local community authorities in Texas; patients were entered over a 13-month period beginning March 1998 and concluding with the final active patient visit in April 2000. The comparison group (treatment as usual, or TAU) were individuals who received care at clinics not offering the treatment algorithm method (ALGO). Patients were assessed at baseline and at 3-month follow-up intervals for at least a year but no more than 27 months (Rush et al. 2003).

Study measures included:

- Symptoms−different measures for each disorder
- Functioning and quality of life−short-form health survey, quality of life interview scale, work/productive activity subscale, and cognitive function tests for schizophrenics.
- Side effects
- Patient and physician satisfaction and knowledge
- Physician adherence to algorithms
- Patient adherence to treatment−how long in treatment, kept appointment rates
- Utilization/cost
- Contacts with criminal justice system
- Demographic and baseline characteristics

TMAP outcomes for depression. A number of studies have been published reporting on the implementation and outcomes of TMAP. Trivedi et al. (in press) report on clinical outcomes for patients with MDD during 12 months of the treatment algorithm, compared with treatment as usual. The aim of treatment is symptomatic remission and functional recovery with continuation treatment to prevent relapse. Symptomatic improvement is distinguished from remission (i.e., minimal or no symptoms), since remission, as contrasted to a response with residual symptoms, is associated with better functioning and a better prognosis.

All 547 patients included in the evaluation improved during the study, but ALGO patients had significantly greater symptom reduction on the clinician and self-report scales. ALGO was also associated with significantly greater improvement in mental health on the short form health survey. These clinically meaningful differences between the two groups were evident as early as the 3-month measurement occasion. Both groups continued to improve over the subsequent nine months, although TAU patients showed no evidence of catching up to their ALGO counterparts.

In spite of benefits demonstrated, substantial significant symptoms and functional impairment persisted. The study intervention was directed only toward optimizing pharmacotherapy and patient adherence. The authors indicate that the results suggest the need to study the effects of broader-based interventions that would integrate evidence-based psychotherapy with evidence-based pharmacotherapy, as well as changes in the health service delivery system to enhance physician adherence to evidence-based treatments (e.g., facilitating real-time feedback to clinicians.). Trivedi et al. (in press) conclude that evidence to date indicates that care systems and practice procedures that aim toward the application of practice guidelines, improving the consistency of care delivered, and improving patient adherence, appear to provide improved patient outcomes (both depressive symptoms and function).

However, secondary analysis of TMAP data for the ALGO group of MDD patients only (Rush et al. 2004) found that, although response and remission rates increased from 3 to 12 months, sustained (after one year) response and remission rates were low. Younger patients, those with full time employment at baseline, and those with a shorter length of illness were more likely to respond positively to treatment. Possible explanations offered for low sustained response and remission rates are the lack of psychotherapy in the intervention (the enhancement of treatment delivery has been shown in other studies to remarkably improve outcome; socioeconomic factors (e.g., the sample is more disadvantaged—less educated, more likely unemployed, and less likely to be white than samples in efficacy studies); issues related to degree of algorithm adherence; high rates of concurrent co-morbid conditions in the study population, especially substance abuse; or the sample population had longer-standing illness than typical groups in efficacy trials.

Kashner et al. (2003) address this issue by developing a new statistical approach, called the Declining Effects Model, to analyze longitudinal data evaluating disease management programs for patients with chronic illness, including mental illness. This approach takes into account how health outcomes may unfold over time by comparing the course of illness between patients assigned to new treatment programs with controls who receive TAU. Disease management programs are considered effective if the outcomes among treated patients are better than outcomes experienced among controls. Researchers often select statistics to detect effects that grow over time (increasing effect pattern). But, the authors assert that outcomes for chronic illness may be more complex—they postulate that while there may be an initial advantage of the ALGO over TAU, differences may either remain constant or decline as ALGO versus TAU differences become negligible over time (declining effects pattern). There are several possible reasons for this:

- If algorithm-driven practices help practitioners find the service mix that optimizes outcomes, TAU physicians may eventually find the optimum mix as well, allowing TAU patients to catch up.
- Patients with chronic illness might relapse, and treatment may have merely delayed inevitable deterioration in health, or treatment effects may have worn off over time.
- Impact on provider behaviors may be short-lived or TAU practitioners may adopt the targeted behaviors causing patient outcomes for the two groups to blend.

Under a declining effects pattern, the health of both ALGO and TAU patients are assumed to improve with time at a constant growth rate with an additional one-time lump sum improvement accrued during the initial period. With the TMAP data, a declining effect pattern was seen for only the very severely depressed patients. Authors recommend that investigators begin with a test for declining effects patterns before proceeding with growth models when evaluating disease management programs for patients with chronic conditions.

TMAP Results for Bipolar Disorder Suppes et al. (2003) report on clinical outcomes for patients with bipolar disorder (BD)/history of mania. Results are provided on the 12-month primary clinical outcomes of patients enrolled in ALGO versus TAU across Texas for the period March 1998 through April 2000. Patients with a history of mania include those with a diagnosis of schizoaffective illness, bipolar type and bipolar I disorder. These disorders are chronic with an early age of onset and infrequent periods of full remission. Relative agreement exists on the overall limited efficacy of long-term lithium monotherapy for patients with a history of mania. Long-term follow up studies reveal a 50 percent recurrence rate among those initially responsive to lithium, while failure to take medication also leads to poor outcome.

Combination treatments are common practice for these patients. Several treatment guidelines and algorithms exist and were reviewed in developing the TMAP algorithm (Department of Veterans Affairs, the Consensus Guideline Series, American Psychiatric Association, Canadian Network for Mood and Anxiety Treatments, International Psychopharmacology Algorithm Project, and the European Algorithm Project).

Four clinics used ALGO for BD. Seven clinics in which no ALGO was implemented provided control patients. While physicians were encouraged to move linearly down the algorithms, it was understood that choices were made depending on patient history, physician judgment, and patient preference. The ALGO intervention used a standardized Clinical Record Form, which was used to collect and structure information about medication adherence, side effects, current symptoms, and laboratory tests. The primary clinical outcome measure was the BPRS-24 total score, which assesses general psychiatric symptoms. Evaluable patients included all patients completing baseline and at least one quarterly evaluation.

The study demonstrated substantial retention over time with 81 percent still participating at the 12-month assessment point. Both ALGO and TAU groups demonstrated significant initial decreases in symptoms at the 3-month assessment. Changes over the next 3 quarters revealed similar improvement in both groups, particularly in patients classified at baseline as very severely ill. In very severely ill patients, catch up by TAU was seen. For those patients presenting with moderate psychiatric severity, treatment with ALGO appeared to provide an advantage that was sustained over time. Symptoms of mania and psychosis (measured by specific subscales) declined significantly more in ALGO than TAU over the first 3 months of treatment. For mania, these differences were sustained over the 12 months. For psychosis, there was overall catch-up over the 12 months. No differences were observed between the two groups in the change in depressive symptoms. The authors note that this is consistent with the difficulty in treating depressive episodes in patients with bipolar disorder.

The **STAR*D Sequenced Treatment Alternatives to Relieve Depression** (Fava et al. 2003) is a multi-site, prospective, sequentially randomized clinical trial of outpatients with nonpsychotic MDD. The study compares various treatment options for those who do not attain a satisfactory response to the initial (Level1) treatment (citalopram, a selective serotonin reuptake inhibitor antidepressant). The study enrolls adults age 18-75 from both primary or specialty care practices (public and private). If the patient does not respond to the first level of treatment, they are randomly assigned to one of the Level 2 options, etc. through Level 4. (At levels 2 and 3, patients indicate which treatment options at each level are acceptable to them and are randomly assigned among the acceptable options.) The STAR*D uses a prospective design to determine the comparative effectiveness of different treatment options for MDD. It evaluates the comparative effectiveness of treatment when used either as augmenting treatments or as new treatments where remission is not attained with the initial treatment. STAR*D follows-up those with a satisfactory response to any treatment in a 12-month naturalistic follow-up

STAR*D responds to the challenges in treating MDD. Major depressive disorder is a common, often chronic or episodic life-long disorder that is associated with substantial disability and mortality. Responses that fall short of complete symptomatic remission (sometimes called responses with residual symptoms) are frequent and are associated with continuing disability and a poorer prognosis than is complete remission (Fava et al. 2003).

Multiple effective treatment options are available for MDD, but only about 50 percent respond to treatment initially, and of these, only about 50-65 percent attain remission. It is unknown how to treat depressed patients for whom two or more treatment attempts have been unsuccessful. STAR*D focuses on the treatment of these types of participants. Where psychotherapy fits in the treatment of MDD is also unclear. STAR*D includes cognitive therapy. STAR*D innovations in study design include broad inclusion criteria to increase generalizability of results, involvement of both primary and specialty care settings, outcome measures that assess multiple domains, routine clinical use of symptom ratings to inform clinical decisions, concurrent use of two independent methods of evaluation, and a flexible approach to randomization at levels 2 and 3 where participants are randomized only to those treatment substrategies that they find acceptable (Rush et al. in press).

STAR*D reviewed evidence to define treatment approaches and steps. STAR*D prospectively enrolls patients in both primary and specialty care venues, in public or private settings. Training and oversight are provided for both the pharmacotherapy and the psychotherapy to ensure reasonably high quality care. STAR*D encourages 12 weeks of treatment with vigorous dosing at each of 4 levels of treatment. The importance of adherence to treatment protocol procedures is emphasized to patients with an educational package. Independent research outcome assessors who are blind to the treatment assignment assess participant symptoms, function, quality of life, side effect burden, satisfaction, and health care utilization and cost at regular intervals. Assessment includes both patient and clinician rating of side effect burden of the medications.

The STAR*D infrastructure includes the national coordinating center (Dallas), the data coordinating center (Pittsburgh), and 14 regional centers, each of which oversees 2-4 primary and specialty care clinical sites. Each regional center provides support, quality control, and coordination for the recruitment, retention, and safety of study participants and oversees the acquisition of clinical information from the clinical sites. As of June 1, 2003, 2555 subjects had been enrolled into Level 1 at 41 clinical sites. Of those, 771 had entered level 2, 164 had entered level 3, and 42 had entered level 4 Rush et al. in press)

Partners in Care (PIC) Depression Patient Outcomes Research Team (PORT) Project is a large national study funded by AHRQ and being conducted by the RAND Corporation. It is a “real world” trial to determine whether diverse primary care clinics can implement practical programs for improving depression care. PIC evaluated how two guidelines-based quality improvement programs for depression, as implemented by managed, primary care clinics, affected quality of care, health-related outcomes, employment, and disparities in clinical outcomes. The study involved 181 physicians, in 46 primary care clinics in 7 managed care organizations, located in geographically and socio-demographically diverse communities across the country. Within each study location, the clinics were randomly assigned to either conduct care as they usually would or to participate in one of two quality improvement interventions—one that facilitated medication management and one that facilitated psychotherapy. The research team followed 1,356 patients for 5 years, making this the first study to examine the very long-term effects of practice-based quality improvement programs.

A collaborative care model was implemented for both interventions, including empowerment of patients; education of patients and clinicians; case management by nurses; and teamwork in program oversight among primary care clinicians, mental health specialists, and nurses. The RAND researchers found that, over two years, the programs improved the quality of care that patients received; improved patients’ health and quality of life; modestly increased health care costs; and reduced ethnic disparities in health outcomes. The quality improvement programs improved longer term health outcomes–participants were less likely to report being depressed even after 57 months. The programs also increased the amount of time patients were working by about one month, which more than covered the additional health care costs of the programs (RAND 2004).

Neumeyer-Gromen et al. (2004) reviewed randomized controlled trials investigating the effectiveness of disease management programs for depression as compared with usual primary care. In their meta-analysis, they found that disease management programs (DMP) significantly enhance the quality of care for depression. They identified studies that include the following DMP components:

- Evidence-based practice guidelines
- Patient self-management education and provider education, accompanied by screening
- Routine reporting and regular feedback loops
- Transparent care process, high level of information, active participation of patients

The main outcome measure of the studies included was depression severity; additional outcomes were health-related quality of life and employment status. Ten studies met the criteria for inclusion in the meta-analysis, and the authors concluded that complete disease management programs significantly improve depression outcome quality. The result is applicable to different degrees of depression, different settings, and a broad American population spectrum of different social and ethnic origin. Adherence to treatment regimen as well as patient and provider satisfaction was improved.

Adherence to Treatment Guidelines

Adherence to treatment algorithms is an issue that comes up repeatedly in studies that take place in “natural” settings, as opposed to clinical trials. Research across medical specialties suggests disappointing adherence with clinical practice guidelines, but much of this research is not in psychiatry and involved a fairly limited set of practice behaviors, such as ordering tests under certain conditions. A review of 41 quantitative studies of adherence to clinical practice guidelines in psychiatry indicated that adherence rates under naturalistic conditions are quite low—on the order of 27 percent of studies report adequate compliance (Dennehy et al. 2004).

Trivedi et al. (in press) noted that there was a range in adherence to the algorithms across physicians in the TMAP demonstration and suggested that more studies are needed that examine both the provider and organization level factors that facilitate the implementation of disease management programs. Suppes et al. (2003) reported that physicians deviated from the algorithm recommendations at times, despite surveillance and feedback from the study management team and clinical coordinator located in their clinic. They suggest the possibility that adherence could be improved by more immediate audit and feedback, or reminders. Reasons physicians do not follow guidelines include: lack of awareness, lack of familiarity, lack of agreement, lack of belief that patient behavior will change, lack of belief that outcomes will be affected by use of guidelines, and external barriers.

Factors attributed to acceptance of guidelines include: attitudes; thorough education of physicians, and to some extent, patients; use of videos, posters, group facilitation, and other creative supplements to more traditional education; involvement of participants (patients and clinicians) in the process of guideline development. Qualities of guidelines associated with improved utilization include simpler formats and the opportunity to pilot early versions. The greatest benefit seems to result when guidelines are introduced in the context of rigorous evaluations (Dennehy et al. 2004).

Bettinger et al. (2004) evaluated physician adherence to the TMAP algorithms after they were implemented by the Texas Department of Mental Health and Mental Retardation, subsequent to a legislative mandate, as a component of routine care through the Texas Implementation of Medication Algorithms. The clinics studied were not involved in the TMAP project. Eight staff psychiatrists and one nurse practitioner from two Texas community mental health centers participated in the study and all attended a one-day training session on the MDD algorithm. The study comprised 117 patients who were treated for depression in these two centers. Data were collected for an 8-month period (April-December 2000). A “report card” score was generated for the treating clinician, using a maximum of five adherence measures: appropriate drug regimen, therapeutic antidepressant dosages, appropriate dosage increases, adequate medication trials, and adequate provider contact. The researchers report that overall adherence was fairly high. However, not all clinicians consistently attempted to optimize outcomes by increasing antidepressant dosage in a timely fashion when patients' symptoms were inadequately responding, and clinicians' adherence to visit frequency and moving to the next algorithm stage was variable.

Dennehy et al. (2003) report preliminary findings using a computerized assessment system to assess adherence to treatment guidelines for bipolar disorder with 2,035 clinical visits under the TMAP demonstration. They note that while computerized assessment is an improvement over other methods, which have relied on laborious and costly chart reviews to extract clinical information and to analyze provider behavior, the computerized method is limited by the specificity of decisions that guide the adherence scoring process. Overall, clinicians demonstrated reasonable adherence to most of the algorithm recommendations. There was more deviation from the algorithm recommendations for visit scheduling. The authors observed that this may be due to crowded clinician appointment schedules. The authors conclude that, despite some sacrifice in detail and nuances, this computerized system of guideline adherence monitoring is feasible.

Systemic Issues/Summary

The studies reviewed touch upon a number of health care delivery/systems issues that are relevant to the proposed Mental Health Treatment Study. Findings related to "real world" settings and employment are of particular interest. For example, Rost, Smith, and Dickinson (2004) studied the effect of improving primary care depression management on employee absenteeism and productivity. Patients with depression were recruited by 12 primary care practices across the country and clinics were randomly assigned to provide either enhanced or usual care. The intervention increased antidepressant medication months and specialty counseling over 2 years. The study measured labor productivity and absenteeism, through a client survey. The researchers found that employed patients in the enhanced care group reported greater productivity (6.1 percent) and less absenteeism (22.8 percent) over 2 years. They found that these effects were more observable in consistently employed individuals.

With respect to monitoring and evaluating the quality of an intervention in a natural setting, Hermann et al. (2004) describe a consensus development process designed to develop a core set of quality measures for mental health and substance-related care that are meaningful to stakeholders, feasible to implement, and broadly representative of diverse dimensions of the mental health system. Twenty-eight measures were identified assessing treatment (12), access (2), assessment (2), continuity (4), coordination (2), prevention (1), and safety (5). Nearly all of the core measures require administrative data.

Kilbourne et al. (2004) describe the barriers to introducing and sustaining evidence-based depression management services in community-based primary care practices and suggest organizational and financial solutions based on the Robert Wood Johnson Foundation Depression in Primary Care Incentives Demonstration Program. The paper focuses on strategies to improve depression care that are based on adaptations of the chronic care model. The chronic care model includes the following components:

- Leadership buy-in
- Decision support –maintaining appropriate guideline-based care
- Delivery system design-care management, behavioral health linkages
- Clinical information systems

Treatment decisions in psychiatry depend on a number of variables, including severity of symptoms, past treatment history, patient preferences, medical tolerability, and clinical response (Dennehy et al. 2004). In addition to efficacy, a major factor in developing empirically-based treatment recommendations is the acceptability of recommended treatments to the patients themselves (Fava et al. 2003). Resources vary from clinic to clinic as do organizational structure and clinic culture. The organization’s role in providing the necessary resources, leadership, planning, and infrastructure to change processes are critical if implementation of any new service program is to occur (Bettinger et al. 2004).

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APPENDIX B: SUPPORTED EMPLOYMENT RESOURCES

Becker, Deborah R. and Robert E. Drake (Eds.). 2003. *Supported Employment Implementation Resource Kit.* Draft Version. Rockville, MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, U.S. Department of Health and Human Services.

This implementation resource kit on supported employment was developed for use in a pilot study under the Implementing Evidence-Based Practices Project. Kits were developed for six evidence-based practices (i.e., those that have demonstrated effective outcomes in multiple studies): assertive community treatment, supported employment, integrated treatment for dual disorders, illness management, family psychoeducation, and medication guidelines). The project was funded through a contract from the Substance Abuse and Mental Health Services Administration's (SAMHSA) Center for Mental Health Services (CMHS) and a grant from the Robert Wood Johnson Foundation (RWJF).

This set of materials is designed to document the evidence for the effectiveness of and provide comprehensive information to guide implementation of supported employment practices in "real world settings." The kit is comprised of a variety of materials that can be used to implement a supported employment approach to treatment, including:

- a user's guide
- videotapes – an introductory tape (for all audiences) and a practice demonstration video (for use in training)
- a workbook for practitioners and clinical supervisors
- information on supported employment tailored for various stakeholders (consumers, family members and other supporters, practitioners and clinical supervisors, mental health program leaders, and public mental health authorities)

- “implementation tips” for mental health program leaders and public mental health authorities
- information on monitoring client outcomes, including a sample quarterly report form, consumer satisfaction survey, quality of life self-assessment, and employment reporting grid
- an overview of fidelity scales and a supported employment fidelity scale
- research articles on implementing evidence-based practices, including one specifically addressing implementing supported employment
- an annotated bibliography referencing practice manuals, the research and conceptual background of supported employment, consumer and family perspectives, practice issues, implementation and administrative issues (including fidelity measures), and barriers to employment
- a statement on the importance of maintaining cultural competence

The kit highlights six principles upon which supported employment is based (these are identical to the guidelines described in the MHTS final report):

- Eligibility is based on consumer choice
- Supported employment is integrated with treatment
- Competitive employment is the goal
- Job search starts soon after a consumer expresses interest in working
- Follow-along supports are continuous
- Consumer preferences are important

Population: adults with severe mental illness

Impact on employment outcomes: key client outcome measures are provided

Becker, Deborah R. and Robert E. Drake. 2003. *A Working Life for People with Severe Mental Illness*. New York: Oxford University Press.

The authors describe the Individual Placement and Support (IPS) approach to supported employment in this three-part volume. The first section of this book provides "conceptual and empirical support" for IPS, including a detailed description of the IPS model. IPS is built on research findings and continues to evolve – "the process of testing, reassessment, feedback, and revision is continuous." Several studies have shown the effectiveness of IPS, including natural experiments and randomized controlled trials. The second section addresses implementation of IPS, including how to assess individuals for employment. Special issues, including cultural competence, education, and dual diagnosis are addressed in the final part. A fidelity scale, an individual employment plan, a vocational profile, and other tools are provided to assist in program development and implementation. The authors also provide a list of suggested readings, including a history of supported employment, lessons from implementing IPS, and job development strategies.

Population: severely mentally ill individuals (IPS does *not* exclude people with severe symptoms)
Impact on employment outcomes: research demonstrates improved competitive employment outcomes among IPS participants

Bond, Gary R., Deborah R. Becker, Robert E. Drake, Charles E. Rapp, Neil Meisler, Anthony F. Lehman, Morris D. Bell, and Crystal R. Blyler. 2001. "Implementing Supported Employment as an Evidence-Based Practice." *Psychiatric Services* 52(3): 313-322.

The authors present an overview of supported employment as a type of vocational rehabilitation. Results from three quasi-experimental studies and eight randomized control trials demonstrate the effectiveness of supported work in increasing competitive employment rates, time employed, and earnings. The quasi-experimental studies also revealed cost savings for programs that replaced day treatment with supported employment. Key components of supported work as outlined by the authors include:

- Commitment to competitive employment as an attainable goal; resources are dedicated to rehabilitation services (rather than day treatment or sheltered work)
- Use of a "rapid job search approach" (rather than pre-employment assessment, training and counseling)
- Job placement based on client preference, strengths, and work experience
- Indefinite provision of "follow-along supports"
- Close integration with a mental health treatment services

The authors also present limitations to existing knowledge, including a lack of client, community and economic, and program factors that predict outcomes. They also discuss barriers to program implementation: access to supported employment; government barriers (particularly funding); lack of leadership from program administrators; resistance on the part of staff, including clinicians and program administrators; and lack of knowledge among clients and families. Strategies for implementing supported work programs are also presented.

Population: individuals with severe mental illness
Impact on employment outcomes: documented improved employment outcomes in nine studies

Revell, Grant, Katherine J. Inge, David Mank and Paul Wehman, editors. 1999. *The Impact of Supported Employment for People with Significant Disabilities: Preliminary Findings from the National Supported Employment Consortium.* Richmond, VA: Virginia Commonwealth University, Rehabilitation Research and Training Center on Workplace Supports.

The National Supported Employment Consortium (SEC) for the competitive employment of people with significant disabilities was created in 1997 to evaluate and disseminate information on supported employment models and practices. SEC also provides technical assistance to states and service providers. This monograph is comprised of 15 articles about supported employment in four areas:

- Current trends and future directions
- Improving state level implementation
- Evaluating policy initiatives
- Improving services and outcomes

The monographs are designed to "frame results in a practical, best practice oriented viewpoint." The first paper presents the background and history of supported employment. The authors discuss "quality employment outcomes," including competitive wages, fringe benefits (with health insurance), long-term retention, scheduling flexibility, and career tracks. A "taxonomy of work supports" presents the array of agency, business, government, and family/community mediated supports that may be available in the workplace. The authors of the second article continue the discussion of current trends in supported employment with a discussion of pay-for-performance, or "results-based funding" methods. After their presentation of different approaches to results-based funding for supported employment, they provide recommendations for implementation. In the final article on current trends, the authors discuss the implementation of a results-based supported employment program in Alabama. They include outcome milestones set for payments as well as information about the Alabama Supported Milestones Certificate Training program designed by the Virginia Commonwealth University's Rehabilitation Research and Training Center, which all providers must complete.

Four papers address improving state-level implementation of supported employment. The first presents evidence of state-level "systems change" in supported employment. The authors of the second paper describe the Quality of Supported Employment Implementation Scale (QSEIS) used in

Kansas to measure implementation of supported employment standards for individuals with severe mental illness. The QSEIS can be used for third-party performance monitoring, agency self-assessment, and proving information to consumers. The authors of the final two papers in this category address interagency collaboration.

The authors of two papers discuss evaluating policy initiatives and present information about systems change and implementing results-based funding for supported employment. The final group of papers address improving supported employment services and outcomes. The authors discuss workplace supports (including employer perspectives and local implementation), and supported employment practices in rural communities.

Population: individuals with significant physical disabilities; individuals with severe mental illness
Impact on employment outcomes: Quality of Supported Employment Implementation Scale

APPENDIX C: MEETING AGENDAS

First Meeting of the Technical Advisory Group for the Social Security Administration's Mental Health Treatment Study

June 16-17, 2004

The Urban Institute, 5th Floor

Washington, DC

DAY 1

Coffee and Pastries 8:30–9:00

1. Introductions 9:00–9:30
   Marti Burt, The Urban Institute

2. Goals of SSA & Purpose of Contract 9:30–9:45
   Pam Mazerski, SSA

3. Parameters of the Design 11:30–12:00
   Marti Burt, The Urban Institute

BREAK 10:15–10:30

4. Characteristics of Target DI Population for MHTS 10:30–11:00
   Susan Kalasunas, SSA

5. Goals of this Meeting and Subsequent TAP Meetings 9:45–10:15
   Dave Wittenburg, The Urban Institute

LUNCH BREAK *(lunch provided by UI)* 12:00–12:45

6. Introduction to a Preliminary Logic Model 12:45–1:00
   Laudy Aron (UI)

7. Who Should MHTS Target? 1:00–3:00
   Laudy Aron (UI)

8. When Should MHTS Intervene? 3:00–4:30
Dave Wittenburg (UI)

The Urban Institute, 5th Floor

Washington, DC

DAY 2

Coffee and Pastries 8:30–9:00

9. Recap of Day 1 and Overview of the Day 9:00–9:20

Marti Burt, The Urban Institute

10. What Should MHTS Provide? 9:20–10:45

    Mental health treatment *(Rush)*

    Employment-related services *(Becker/O'Brien)*

    Timing/Intensity *(Rogers)*

BREAK 10:45–11:00

11. What Should MHTS Provide? *(continued)* 11:00–11:30

12. How and Where Should MHTS Interventions Happen? 11:30–1:45

[work through lunch, lunch provided by UI]

    Established interventions *(Becker)*

    Provider and/or intervention characteristics *(Dutton)*

    Job/occupation/employer characteristics *(O'Connor)*

    Location(s) of intervention *(Hennessy)*

    Interests served (incentives) *(Flynn/Owens)*

BREAK 1:45–2:00

13. What Outcomes Should MHTS Produce? *(Mechanic)* 2:00–3:00

14. Summary of the Day and Next Steps 3:00–4:00

Marti Burt, The Urban Institute

Second Meeting of the Technical Advisory Panel for the Social Security Administration's Mental Health Treatment Study

Wednesday, October 27, 2004
9 am to 5 pm
The Urban Institute, 5th Floor
Washington, DC

9:00 am **Coffee/Pastries and Opening Remarks by SSA**

9:30 am **TAP Discussion Moderated by Urban Institute Team**

I. Short Review of the Overall Purpose of the MHTS and TAP Recommendations to Date

The Mental Health Treatment Study is a pilot demonstration that will test the following assumption: In addition to *eliminating all programmatic work disincentives*, establishing an accurate diagnosis (including identifying/treating any confounding mental/physical conditions), delivering state-of-the-art mental health treatment along with appropriate employment supports will lead to better employment outcomes among people with serious mental illnesses receiving SSA disability benefits.

The target population should:

- Be limited to DI applicants and beneficiaries (those with concurrent SSI are okay);
- Include individuals whose *primary* diagnosis falls within the three largest classes of mental disorders: affective, psychotic, and anxiety-related disorders;
- *Exclude* DI beneficiaries who are either mentally incompetent or have conditions that prevent work; and
- Be recruited voluntarily, and all participants *must be held harmless*.

The demonstration should:

- ▪ Use methods that could provide a convincing result, including
  - Experimental design/random assignment
  - Adequate sample size, and subsamples as appropriate;
- ▪ Be national in scope; and
- ▪ Have experimental conditions that include (1) people just applying for DI benefits and (2) people already on the rolls (there will *not* be a pre-application component).

The intervention (or "treatment") should:

- Begin with an accurate medical diagnosis of all mental and physical conditions (which will most likely require new medical and psychiatric evaluations or examinations);
- Include a comprehensive set of clinical and vocational supports that are *integrated* with one another (mental health treatment services alone and vocational services alone are *not* options);
- Be *individualized* according to each person's strengths, goals, and needs;
- Have as its primary goal increased work activity (competitive employment) to the extent feasible and desired by participants;[17]
- Adhere to proven supported employment *principles*;
- Be available on an on-going (long-term) basis; and
- Not include "very limited or low cost" interventions that are unlikely to make a difference.

[10:00 am]

Further Development/Clarification of the Actual "Intervention"

Additional input is needed from the TAP concerning the exact nature of the intervention services (beyond the general guidelines described above).

Questions the TAP may want to consider:

1. Should there be lists of the types of employment and clinical supports that are available to all participants? Examples include (see final pages for definitions/descriptions of these):

    Employment supports—

    - Vocational Assessment/Evaluation
    - Job Development/Finding: Client Specific
    - Job Development/Finding: Not Client Specific
    - Collaboration With An Employer: Client Specific
    - Collaboration With An Employer: Not Client Specific
    - Vocational Support Groups
    - Collaboration With Family/Friends
    - Vocational Treatment Planning/Career Development

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[17] *All* aspects of the intervention, including the mental health treatment and incentive structures facing service providers, should be geared toward achieving this central (employment-related) outcome.

- Skills Training/Education: Off-Site
- Vocational Counseling: Off-Site
- Job Support: On-Site
- Transportation
- Other(s)?

Diagnosis/Medications—

- Evaluation/Diagnosis
- Medication Evaluation/Maintenance

Clinical supports—

- Case Management
- Family/Couples Counseling
- Emergency Services
- Individual Counseling
- Group Counseling
- Partial Hospital Program (including psychosocial rehabilitation programs)
- Other(s)?

2. Are there any types of supports that should be explicitly included/excluded? Are there any services or practices that are still widely used but that have been shown to be ineffective in promoting employment among people with serious mental illnesses?

3. Clinical and vocational supports/activities can occur in different settings including scattered site in the community, psychosocial rehab, clubhouses, drop-in centers, etc. Does the setting matter? Will settings that have been developed with other populations in mind be appropriate for the MHTS population?

4. In addition to identifying all the "elements" of the intervention (as listed above), do we need to adopt/endorse one or more specific established approaches or models of service, e.g., "clubhouses," "PACT," "transitional employment," "supported employment," etc., along with all the philosophical underpinnings each approach offers? Will models that have been developed with other populations in mind be appropriate for the MHTS population?

[11:00 am]

5. While services and supports are *individualized*, caseworkers must have some protocol they can use (or adapt) in order to decide who receives what services. Are there existing decision-making tools or aids that we want to recommend (or require) service providers to

use in deciding what types of services individual participants receive? This question pertains to both vocational and clinical services. Also, how should "adherence to treatment" (by providers) be defined and operationalized in the absence of any protocols?

Are state-of-the-art clinical protocols available for all of the mental health conditions we are including in the MHTS population? How easily can medical professionals unfamiliar with them use these protocols? Do the protocols need to be adapted to maximize employment (rather than medical) outcomes?

6. How should vocational and clinical services be integrated? What do we mean by the term "integrated services"? In the EIDP, for example, level of services integration was defined as "high" when vocational and mental health services were delivered:

    - By the same agency;
    - At the same location;
    - Using a single case record; and
    - With regularly scheduled meetings of vocational & clinical providers (i.e., daily or no less than 3 times/week).

7. What about the incentive and payment structures facing service providers? How should these be structured? If payments are to be tied to outcomes, *which* outcomes (especially given that only a small share of the population may succeed in engaging in any type of employment activity)? Should we allow, or perhaps even encourage, "creaming" within what is a very hard-to-serve population, and given that positive employment outcomes even among the "top" groups will be a significant achievement?

[noon] — *Lunch Served [Resume discussion at 1 pm]*

Clarifications of "Who" and "Who Gets What"

During the last presentation, SSA provided detailed breakdowns of the DI/SSI beneficiaries with serious mental illnesses. Here is a summary of the major findings:

- 1,417,669 MI cases (379,000 concurrents);
- Affective disorders is the largest group (813,632), followed by schizophrenic, paranoid and other psychotic disorders (401,351), and anxiety related disorders (145,868);
- Approximately 50% were under age 50 (704,429);
- Lower average monthly benefit on average ($780), which reflects shorter work history/younger age of groups; and

- Current earnings almost non-existent (1.3 million in total earnings, split evenly across those over and under 50).

The TAP also asked for some additional data, which will be presented at today's meeting and are summarized below in Table 1.

Table 1: Summary of Requested Data Elements[18]

Data Element	**Description**
General Characteristics of Workers	
- Numbers/characteristics of people who leave DI because of earnings	This statistic provides information on the types of beneficiaries who have had success earning in the past. Presumably, some of the characteristics (e.g., age) could be used to inform stratification elements in the MHTS.
Scope of Intervention	
- Total number of people on rolls who have each of the top 3 MI diagnoses, *whether primary or secondary*, with subcategories for all possible combinations of top 3 MI diagnoses. - For those with top 3 MI diagnoses, number/share of each with concurrent SSI benefits	These descriptive statistics should provide some insights on the size and diversity of potential target groups for the MHTS.
Specific MI Work Characteristics	
- For those with each MI diagnosis, earnings in their pre-application year - Work history (qtrs.) by MI diagnosis by age - Working by MI diagnosis by whether they have a rep payee - Working by MI diagnosis by whether they are legally incompetent	Several TAP members noted that targeting the intervention to populations with various work histories would likely enhance the outcomes of the treatment. These descriptive statistics should provide insights on work "potential" of various populations and potential sample sizes.
Drug & Alcohol Addiction	
Primary MI diagnosis by secondary D&A	There was interest in obtaining information on the degree to which drug addiction and alcoholism could influence the MHTS. It's important to note, however, these data may be undercounted in the administrative records because they are not necessary in processing payments.
Potential for Intervention At Application	
Proportion of applicants presenting as one of the top 3 MI diagnoses who are "allowed" at step 3 Proportion of applicants presenting as one of the tope 3 MI diagnoses who are "denied" at stage 1, do not appeal, but	These statistics provide insights on potential interventions targeted at application (as opposed to after allowance).

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[18] Data on the educational attainment of beneficiaries were also requested and reviewed, but will not be presented here because of problems with missing fields. Data on education level are not necessary for administering DI benefit payments, and so they are often missing from administrative data.

reapply at a later date **Age of entry by MI diagnosis**	

1. Review/discuss additional SSA data runs requested by TAP from Table 1.

2. How should we handle the following groups/dimensions of interest?:

   - The small share of DI beneficiaries who are currently working?
   - Lengths of time beneficiaries are on the rolls?

   Do we want to stratify by these dimensions (in order to be able to analyze these groups separately? Or do we simply want to "observe" these variables and have them for possible inclusion in multivariate analyses?

3. How should we handle the "at application" portion of this demonstration? How should they be identified (at what stage of the application process and by whom)? How might/should this affect the application process (if at all)? What might we need to offer DI applicants in order to encourage their participation in this demonstration? *Note that the TAP may not wish to weigh in on these issues at this stage, but they should be acknowledged and will certainly need to be addressed at some point in the design of the demonstration.*

[3:00 pm-3:15 pm break]

4. Must each site in the demonstration "do it all?" The first meeting of TAP led to many decisions about the basic parameters of the demonstration, including who should be included, what the intervention consists of, when services should be offered, etc. (many of these are summarized above). But an important follow-up question is whether SSA should allow individual sites to pilot only some parts of the demonstration within these basic parameters.

The TAP may want to allow "less than everything," such as:

- Doing only the "at application" piece or only the "on the rolls" piece;
- Allowing for expedited entry into the demonstration "at application" or when benefits are determined;
- Limiting the intervention to particular subgroups defined by participants':
  Medical characteristics, e.g., only one of the main diagnostic groups (affective, psychotic, and anxiety-related disorders), participant's secondary impairment, medical treatment history, etc.

Work histories and/or vocational characteristics, e.g., recency, intensity, job quality, level of interest, etc.

Program characteristics, e.g., duration on the rolls, concurrent benefit status, Medicare eligibility, etc.

If individual sites *are* allowed to limit participants to a subset of all applicants and beneficiaries:

- Should there be a limit to the number of distinct subsamples that can/should be tested through the demonstration?
- How can SSA assure that all subsamples are included in the demo?
- Should SSA adopt a *minimum* number of sites using any given sub-option so cross-site comparisons are possible? (e.g., SSA could select sites such that at least 3 sites included a particular subgroup)

A related issue is how to construct intervention design options. SSA will likely weigh their choice of overall options based on (1) expected impact and (2) costs. Presumably, any of the sub-options mentioned above could be packaged as an entirely separate intervention option.

[4:30 pm]

IV. Additional Considerations

- Should local economic conditions be considered? Note: The EIDP documented poorer vocational outcomes for participants in counties with higher employment *regardless* of participants' study condition (experimental or control), participants' individual characteristics (demographics, clinical features, work experience, etc.).

- Are there any major topics that we should explore further through consultations with other experts or review of studies/materials?

- Other suggestions?

CROSS-SITE COMMON SERVICE CATEGORIES & DEFINITIONS drawn from:
http://www.psych.uic.edu/EIDP/Service_Categories.pdf

VOCATIONAL SERVICES

1. VOCATIONAL ASSESSMENT/EVALUATION

The comprehensive assessment of an individual's vocational skills, attitudes, behaviors, preferences, and interests, through a variety of formal and informal methods. Results in the formulation of a set of recommendations designed to encourage vocational development and progress based on the potential and capability demonstrated in the evaluation.

2. JOB DEVELOPMENT/FINDING: CLIENT SPECIFIC

Direct and indirect contact with potential employers and/or networking with other individuals or organizations who have job information *on behalf of an individual client*.

3. JOB DEVELOPMENT/FINDING: NOT CLIENT SPECIFIC

Direct and indirect contact with potential employers and/or networking with other individuals or organizations who have job information *on behalf of all clients in general within a vocational program.*

4. COLLABORATION WITH AN EMPLOYER: CLIENT SPECIFIC

Working with *a specific client's employer* in order to help *identify*, resolve or prevent conflicts; to *negotiate reasonable accommodations,* job duties, schedules, approaches or techniques used for specific tasks, or any other area related to the client's employment.

5. COLLABORATION WITH AN EMPLOYER: NOT CLIENT SPECIFIC

Working with employers in order to help resolve or prevent conflicts; to negotiate job duties, schedules, approaches or techniques used for specific tasks, or any other area related to the employment of clients from your program.

6. VOCATIONAL SUPPORT GROUPS

Participation in facilitated discussions with other vocational rehab consumers away from the workplace and outside of work hours regarding employment related experiences.

7. COLLABORATION WITH FAMILY/FRIENDS

Direct or indirect communications with client's family member(s) and/or friends regarding the employment experiences of the client, such as the importance of providing support and encouragement.

8. VOCATIONAL TREATMENT PLANNING/CAREER DEVELOPMENT

Following vocational assessment/evaluation, and with the involvement of the client, developing a written plan of action for finding or maintaining employment.

9. SKILLS TRAINING/EDUCATION: OFF-SITE

Training offered across several possible areas, including job seeking (e.g., interviewing, resume writing, developing job leads), work readiness (e.g., attendance, following instructions, grooming), social skills (e.g., greetings, conversations, understanding the intent of humor), and specific job skills (e.g., filing, answering telephones, using particular tools).

10. VOCATIONAL COUNSELING: OFF-SITE

Counseling, support, and problem solving related to employment provided by meeting with an individual client away from the work site and outside of work hours.

11. JOB SUPPORT: ON-SITE

On-site counseling, support, and problem solving. Providing on-the-job help with vocational skills in different work situations and production levels, social skill in the work environment, and job-related skills; may include on-the-job training/assistance.

12. TRANSPORTATION

Making arrangements for transportation to and from work. This may include identifying walking routes, developing car pool resources, identifying and practicing bus routes, or having someone actually transport the worker.

NON-VOCATIONAL SERVICES

13. CASE MANAGEMENT

Case managers assist individuals to access services and make choices about opportunities and services. They help primary consumers to make effective use of formal and informal helping systems to gather resources to live in the community.

14. FAMILY/COUPLES COUNSELING

Therapeutic interaction with family members or significant others, with or without the presence of the individual to address the individual's therapeutic goals, by providing emotional support, developing insight, producing cognitive/behavioral change, improving decision-making and/or reducing stress. May include education about management of a behavioral health disorder, including relapse prevention and recovery strategies. May be provided to multiple families.

15. EMERGENCY SERVICES

This service provides immediate, short-term mental health services to all citizens who are experiencing an emergency or crisis situation. This service may be available in hospitals or other facilities.

16. EVALUATION/DIAGNOSIS

An evaluation for the purposes of intake, treatment planning, eligibility determination, or functional assessment by a qualified mental health professional. This includes psychiatric evaluation/mental status by a psychiatrist or other qualified mental health professional for diagnostic or disposition purposes, commitment evaluation, psychosocial evaluation and psychological evaluation with or without testing.

17. INDIVIDUAL COUNSELING

Scheduled outpatient mental health services provided on an individual basis in a clinic, similar facility, or other location. These services may include diagnosis and evaluation, counseling, psychotherapy, behavior management for the purposes of developing insight, producing cognitive/behavioral change, improving decision-making and/or reducing stress.

18. GROUP COUNSELING

Psychotherapy provided to more than one client. Includes psychotherapy, activity group therapy, groups, etc. for the purposes of developing insight, producing cognitive/behavioral changes, improving decision-making and/or reducing stress.

19. MEDICATION EVALUATION/MAINTENANCE

Services provided by a physician to evaluate, prescribe and monitor medications for the treatment of psychiatric disorders. Includes medication review and administration services provided by a RN under the supervision/order of a physician. Includes visits for the purpose of prescribing medication as well as for medication refills or dosage regulation. Medication service does not include methadone maintenance, etc. or detoxification.

20. PARTIAL HOSPITAL PROGRAM

This service is targeted to clients in need of stabilization through an active treatment environment. The goal is to maximize and individual’s level of functioning in the community and to prevent acute inpatient care. This service will primarily be used for persons recently discharged from the hospital or individuals in immediate danger of rehospitalization.

Potential Elements of MHTS

	Absolutely Essential	Include, If Possible	Not Essential	Do Not Include
Vocational Assessment/Evaluation				
Job Development/Finding: Client Specific				
Job Development/Finding: Client Specific				
Job Development/Finding: Not Client Specific				
Collaboration w/an Employer: Client Specific				
Collaboration w/an Employer: Not Client Sp.				
Vocational Support Groups				
Collaboration With Family/Friends				
Vocational Treatment Planning/Career Dev.				
Skills Training/Education: Off-Site				
Vocational Counseling: Off-Site				
Job Support: On-Site				
Transportation				
Other				
Other				
Other				
Evaluation/Diagnosis				
Medication Evaluation/Maintenance				
Case Management				
Family/Couples Counseling				
Emergency Services				
Individual Counseling				
Group Counseling				
Partial Hospital Program				
Other				
Other				
Other				

Third Meeting of the Technical Advisory Panel for the Social Security Administration's Mental Health Treatment Study

Wednesday, February 16, 2005
10 am to 4 pm

The Urban Institute, 7th Floor, Conference Room 7b
Washington, DC

	Coffee and Pastries	9:30 -10:00
1.	Overview of the Day Laudy Aron and David Wittenburg	10:00-10:15
2.	General Comment Period *All TAP Participants*	10:15-10:45
3.	Review of Section VI: Key Questions *All TAP Participants*	10:45-11:30
BREAK		11:30-11:45
4.	Review of Section V: Design Issues Lead Comments (5 minutes each) *David Mechanic & Harold Pincus*	11:45-12:30
Working Lunch		12:30

5. Review of Section III: The MHTS Intervention 12:45-1:30

   Lead Comments (5 minutes each) *John Rush, Sally Rogers & Deborah Becker*

BREAK 1:30-1:45

6. Review of Section IV: MHTS Service Organization and Delivery 1:45-2:30

   Lead Comments (5 minutes each) *Dan O'Brien, Dale Dutton & Patricia Owens*

7. Review of Section II: The MHTS Target Populations 2:30-3:00

   Lead Comments (5 minutes each): *Thomas O'Connor & John Hennessy*

BREAK 3:00-3:15

8. Final Summary 3:15-4:00