

## I . The program Design

### What is VA mental health program? – Definition and Goal

Among a wide variety of health care services provided to veterans is Department of Veterans Affairs' (VA's) Mental Health Program. U.S. veterans have elevated rates of serious mental health and substance use disorders. According to one recent study, an estimated 18.5% of veterans returned from Operation Enduring Freedom (OEF-Afghanistan) and Operation Iraqi Freedom (OIF) met criteria for probable posttraumatic stress disorder (PTSD) or depression. Ensuring that these veterans receive the best possible care for mental health conditions has become a national priority. This program can be defined as an operational, point of service, programmatic package of approximately 400 mental health services provided or available to eligible veterans at VA medical centers and community based outpatient clinics (CBOC) of varying size.

Its mission is to maintain and improve the health & well-being of Veteran's through excellence in health care, social services, education and research. There are several basic principles forming the foundation of all VA mental health care.

- **Focus on Recovery** – VA is committed to a recovery oriented approach to mental health care. Recovery empowers the Veteran to take charge of his treatment and live a full and meaningful life.
- **Holistic Coordinated Care** – VA health care provides coordinated with each other to provide safe and effective treatment for the “whole” person-head to toe.
- **Evidence-Based Treatment (EBT)** – VA is committed to making evidence-based treatments widely available. Evidence-based treatments are treatments that research has proven are effective for particular problems.
- **Family Support** – Sometimes, as part of a Veteran's treatment, some members of the Veteran's immediate family or the Veteran's legal guardian may be included and receive services, such as family therapy, marriage counseling, grief counseling and so on.

How VA is working? – Activities and Outcomes

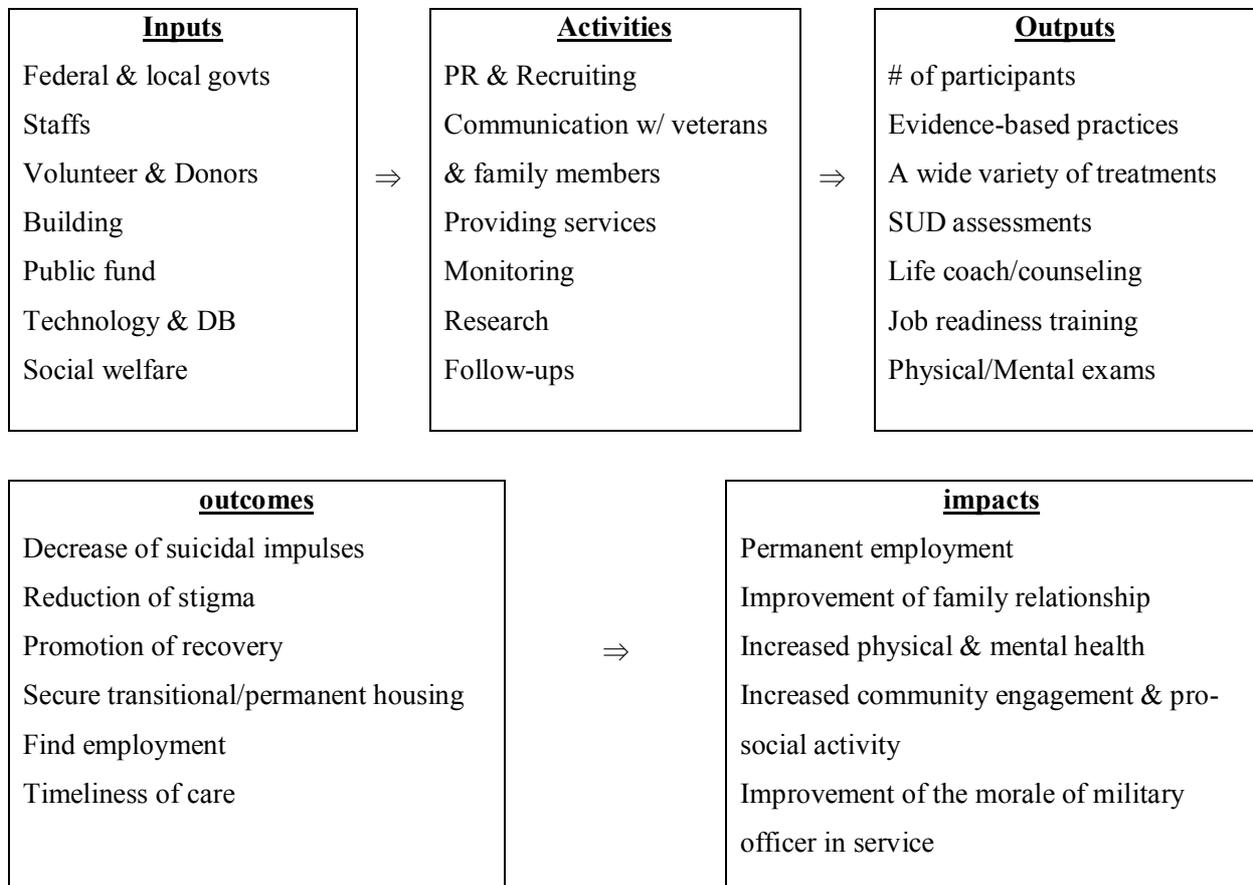
There are two kinds of nationwide service providers in VA which are Medical centers for inpatient and outpatient health service and Vet centers mainly for readjustment counseling services. Some VAs offer help for coping with stress, such as relaxation exercises. For Veterans with serious mental illness, VA offers care tailored to help with their specific problem and to promote recovery. Serious mental illnesses can include schizophrenia, depression or bipolar disorder, posttraumatic stress disorder (PTSD), and substance use disorders (drugs or alcohol, or illegal substances: SUD). These problems are usually treated with medications and individual or group psychotherapy (talk therapy). These services are offered in a variety of settings.

- ✓ Inpatient care for Veterans suffering from very severe or life-threatening mental illness.
- ✓ Intensive outpatient care that helps bring a serious mental illness, including a substance use disorder or posttraumatic stress disorder, under better control.
- ✓ Outpatient care in a psychosocial rehabilitation and recovery center for Veterans
- ✓ Regular outpatient care, which may include telemedicine services, for Veterans during a difficult time in life
- ✓ Residential care for Veterans with a wide range of mental health problems or rehabilitative care needs (such as homelessness, job training, and education)
- ✓ Supported work settings to help Veterans join the work force & live well in the community.

Those who have most interest in this program are Veterans and their family members. Among other stakeholders are military officers in service, prospect servicemen, local & federal governments, staffs, politicians such as congressman, volunteers, taxpayers, competitors such as private medical centers and insurance companies and so on. There are subtle differences in their priorities. Veterans, current or prospect servicemen and their families put an emphasis on its effectiveness and quality irrespective of budget. Authorities concerned, on the other hand, may make efficiency a higher priority than the formers do. Meanwhile, private competitors pay attention to the field it can't cover and the degree of satisfaction Veterans have on it since they seek for care transitions and market niche.

This program has relatively many measurable outcomes. This is because it has much to do with disease treatment. Among measurable outcomes are the decrease of suicidal trial and substance abuse, the improvement of housing and employment, physical exam, response to medication and psychotherapy, all side-effects and things like that. In addition to quantitative data noted above, we can estimate outcomes by means of qualitative methods such as surveys for patient satisfaction and quality of life.

**Logic model of VA’s mental health care program**



## II. The Evaluation Design

### What are the Goal and Key questions of the evaluation?

Numerous studies have examined aspects of the costs and quality of care for veterans with serious mental and substance use disorders. However, none has been comprehensive, focusing on one, or at most two, disorders. Furthermore, no study has addressed variations in care for veterans with different diagnoses and in different regions. This might indicate that optimal care is not being delivered equitably. That's why in 2006, the VA commissioned a comprehensive evaluation of its mental and substance use treatment system. The evaluation took place during implementation of the VHA's five-year Mental Health Strategic Plan, a large initiative to expand and improve mental health care.

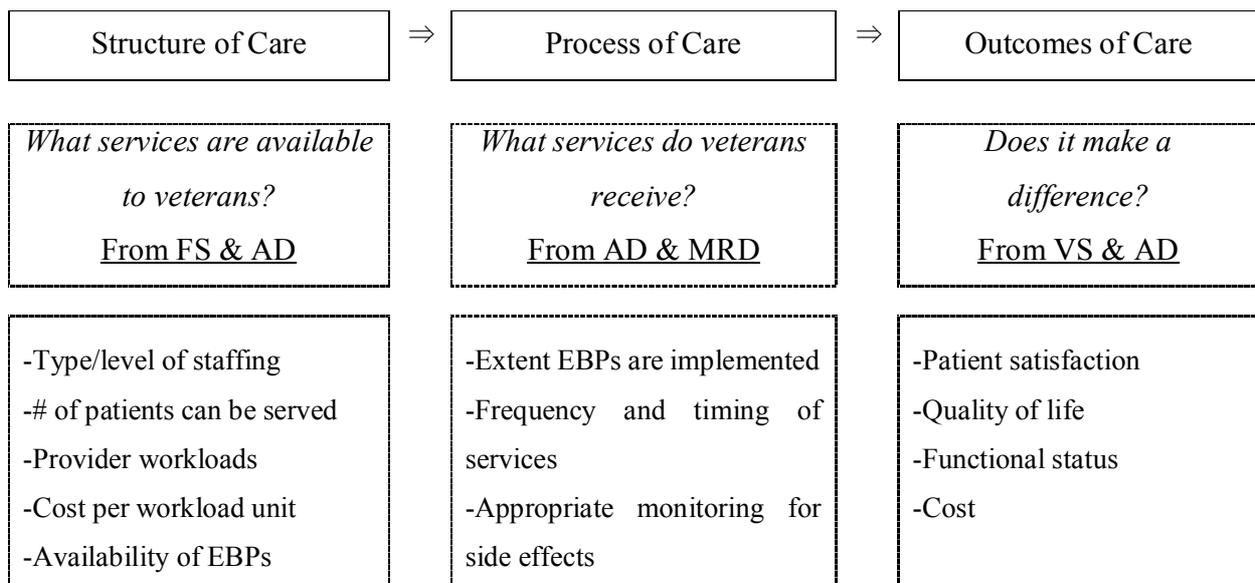
The evaluation focused on veterans with one (or more) of five conditions: schizophrenia, bipolar I disorder, PTSD, major depressive disorder (MDD), and substance use disorder (SUD). This is because they are among the most prevalent, are associated with high levels of disability, and are costly to treat. The evaluation was aimed at assessing whether, for the population of veterans with mental health and substance use disorders, the VA has met the goal of restoring their capability to the greatest extent possible and improving the quality of their lives and the lives of their families. It also sought to assess whether the VA has met the objective of maximizing these veterans' physical, mental, and social functioning. The key evaluation questions are as follows.

- ✓ How much health care is used by veterans and how much does it cost?
- ✓ What is the VA's capacity to deliver mental health and substance use care to veterans?
- ✓ What is the quality of mental health care and how does the quality compare with that delivered in the private sector?
- ✓ How does quality vary across geographic regions of the United States and for the different groups of veterans?
- ✓ Are veterans satisfied with the care they receive?

What is the design of evaluation? – Type, Research design and Data collection

To address these research questions, the evaluation used the structure-process-outcomes conceptual framework. This framework is designed to guide evaluation of quality of care and measure whether a health care system is achieving its intended outcomes. In a nut shell, patient outcomes are influenced by both the structure of care (e.g., type/level of staffing, hours of operation) and the process of care (e.g., whether and how evidence-based practices are implemented, appropriate side-effect monitoring). The structure of care focused on the VA’s capacity to deliver to care to the target population by assessing the availability of services. While the ultimate goal of quality improvement is to improve patient outcomes (e.g., symptoms, quality of life, functional status), it’s difficult to assess quality using outcome metrics, because outcomes may be influenced by many factors other than the health care system in which patients receive care. Patient outcomes are also typically more costly to measure than processes of care. To address these challenges, it adopted process measures to assess quality when there is clear evidence that desired health outcomes can be linked to a particular process. Finally, for assessing outcomes of care, it conducted a veteran survey for patient satisfaction and analyzed administrative data for utilization and cost outcomes.

**Structure-process-outcomes framework**



The study team developed a wide range of measures to assess the structure, process and outcomes of VA mental health care. Measures were collected using four data sources as follows. The overall study cohort was identified using (1) administrative data which were also used to estimate quality measures. Next two overlapping stratified random samples of study veterans were selected for the purposes of (2) medical record review to collect additional data on quality measures and a (3) veteran telephone survey to ask veterans about their perceptions of VA care. Data about the structure of care were collected simultaneously through (4) a survey of administrator at VA facilities.

- **Facility Survey (FS)** data for the structure or availability of care from 2007 to 2009
- **Administrative Data (AD)** for utilization and costs of this entire period and processes of care for veterans. All veterans who received services from VA in FY 2007. N=836,699
- **Medical Record Data (MRD)** for utilization and processes of care from FY 2006 to FY 2008. A stratified random sampling from AD. N=7,069
- **Veteran Survey (VS)** data for processes and outcomes for veterans from 2007 to 2009. Veterans who completed interview among 9,619 veterans invited to survey. N= 6,190

As noted above, it used time-trends analysis for performance indicators over FY 2004-FY 2007 instead of adopting experimental research. That was cost-effective since there were lots of data available and easily modifiable for research.

#### What are the threats to validity of the study?

There were mainly two kinds of limitations on this evaluation. One is resulted from the characteristics of mental health care, the other from data used for analysis. As documented in 2006 IOM report, there is underdevelopment of the infrastructure for measuring and reporting quality. Key deficits are the lack of standardization and classification of clinical assessment and treatment practices for use in administrative datasets; insufficient attention paid to the development and dissemination of mental health performance measures; and infrequent use of

outcome measurement in routine clinical practice. Moreover, the overall effort has been hindered by the absence of a group overseeing and coordinating the process.

Administrative data, which are mainly oriented to claim-based ones, are generally not as comprehensive. Information that is not systematically recorded cannot be tracked, and information that is inconsistently coded could make variability appear greater than it actually is. Although Medical record data (MRD) address some of the limitations of AD, they have their own disadvantages. Care may be provided but not documented, or documented but not provided. Thus, data from MRD reflect the quality of documentation and cannot be used to conclusively evaluate quality of care. Facility and veteran survey data also have inherent limitations. They are subject to social desirability bias-that is, responders may be influenced by a desire to provide information they feel is socially acceptable to the questioner, regardless of its accuracy.

#### What are the findings? – results and politic implications

First of all, veterans with mental illness and substance use disorders represented 15.4 percent of all veterans using VA's services in 2007 and that they accounted for 32.9 percent of VA costs, of which the majority was for non-mental health conditions. The average cost for them was 2.7 times the cost for an average veteran without these conditions. What's worse, the size of the population of veterans with mental illness is likely to continue to increase, as military operations in Iraq and Afghanistan decrease in size and service members leave the armed forces. This means this program can not only play a pivotal role in achieving VA's entire goal and but also be a big financial burden upon it. In addition, the assessment of quality indicators suggests that in most instances the performance of VA care is similar to or better than the care given to comparable privately insured patients or those enrolled in Medicare or Medicaid. VA performances exceeded private-plan performance by more than 30 percentage points in most cases. This most likely demonstrates the significant advantages that accrue from an organized, nationwide system of care. The problem is, however, there is a variation in some performance indicators assessed with respect to geography; varied by as much as twenty-three percentage points among regional service networks. This may result in serious inequity problems. Despite of most favorable evaluation by veterans through survey, the VA is falling short of its own implicit

expectations. Over the period evaluated, most performance indicators did not show substantial improvement; however, the evidence of structural enhancements and increased availability of services may yield improvements in the future. In addition, there was significant growth (a cumulative 38.5 percent) in the number of veterans for whom services were provided over the study period. This suggest that while this work did not observe substantial improvement in performance over the period on most indicators, maintaining the performance level that was achieved concomitant with the underlying growth and change in the population served is a significant accomplishment.

### III. Analysis and Conclusions

#### How can the evaluation be evaluated? – relevancy to the program & solution

This work was designed to assess whether VA program helps veteran restore themselves physically & mentally and improve their lives. This was seemingly suitable to the program since the goal of evaluation nominally coincides with that of program. The actual result of the evaluation, however, seems to be oriented to the measurability of performances rather than the quality of VA's service. The analysis for quality of health care service depended on the veteran survey. If we consider the generous tendency of veterans upon the survey, it may overstate the performances. In addition, even if family members play a pivotal part in improving the quality of veterans' life, they were left out in the process of research. The same story at Vet Centers (VCs). There are 134 nationwide VCs serving for Readjustment Counseling. Although they should have been taken into account as a separate component of the VA, it didn't do that. Except for medical treatment there are many other programs intended for improving veterans' lives such as transitional or long-term housing in community-based program, employment assistance and residential treatment. Those were also skipped for the sake of measurability. In conclusion, whether or not it was intended, there was kind of **discrepancy between the goal of evaluation and that of program**.

Is there any other option? – another type of design

In order to enhance statistical significance, the evaluation employed the large-scaled study population and sample; MMR (N=7,069), VS (N=6,190) and AD (N=836,699). Due to the nature of mass sampling, it may miss the qualitative aspects of the population and can't keep track of substantial elements such as relationships between variables. In order to challenge these problems, within resources provided, we can do **observational study** for relatively small but well-designed sample including family members over the specific period. In this case, moreover, we can employ a range of **experimental designs** such as pretest and comparison group study. On one hand, pretest make it more accurate for us to evaluate the effectiveness of the program since we can subtract the unintended effects from the results, on the other hand, through comparison group study we can take in-depth study for comparison with private sector. But in the process of this kind of research we should keep in mind we should pay more attention to minimizing biases.

What are the next steps ? – shortcomings and recommendations for further research

Given that mental health has become a globally and nationally critical policy issue, this work itself is worth being well-regarded. In addition, since its approaches were aimed at overcoming barriers to assessing the quality of mental health care, the study can be extended to serve as a model for evaluating other systems of mental health and substance use care. In spite of contributions mentioned above, due to limitations of resources such as time and money, it had to confine the scope of work. First of all, it did not address **how to improve the quality** of health care services since it omitted to investigate the relationships between determinant factors that might contribute to performance. This may be a critical area for further research. Secondly, with respect to the **analyses on variations of care**, it did not attempt to tease apart the underlying causal mechanisms or draw conclusions about whether disparities are present. That's important because the variations in care provided to different subgroups of veterans may be clinically justified or based on cultural or regional preferences, or they may be disparities, not clinically or culturally justified. Future research should include developing a better understanding of the basis for observed differences before concluding that variations are disparities.

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