

Air Command and Staff College

Air University

**Revolutionizing Mental Health Care Delivery in the United States  
Air Force By Shifting the Access Point to Primary Care**

by

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## **Abstract**

Mental health care demand continues to rise in the Air Force Medical Service (AFMS) and there are not enough mental health personnel to meet the needs of the population. While the U.S. Air Force (USAF) is shrinking in size and budget, no additional funding is being allocated to procure more mental health personnel. A one year pilot study was launched in FY15 at three USAF military treatment facilities to study the effects of shifting the access point for mental health care from the mental health clinic to the primary care behavioral health clinic (known in the USAF as BHOP) and reallocating mental health clinic personnel to BHOP in order to support the increased demand. Pilot study results indicate that the MTFs experienced a 22% increase in total patient encounters (27,432 in FY14 to 33,463 in FY15) and a 119% increase the total number of unique patients seen (8,815 in FY14 to 19,329 in FY15). This is compared to the AFMS average increases of 4% and 5% respectively during the same time period. Additionally, access to care improved by having 15% of BHOP patients attend their initial appointment on same day as their request for services. Furthermore, only 9.2% of BHOP patients were determined to need a referral to specialty mental health services at either the MTF's mental health clinic or a TRICARE community provider. These results directly correlate with a net decrease in community purchased care costs in the pilot site MTF's TRICARE network area that ranged between 9.3% and 45.2% when compared to the AFMS average that experienced a 15.7% increase in purchase care costs from FY14 to FY15. If this process improvement is implemented across the AFMS, it is estimated to reduce community purchased care cost between \$3.9 million and \$18.9 million per year as more patients get their mental health needs met at the MTF. Additionally, results indicate that patients and providers maintained high levels of satisfaction during the course of the pilot study.

## Introduction

The United States health care industry is being forced to redesign the delivery and management of medical care due to economic and political influences. These realities in turn, also affect the Military Health System (MHS) as a whole and more specifically, the Air Force Medical Service (AFMS).<sup>1</sup> With shrinking budgets and personnel, the AFMS must find ways to efficiently deliver the highest quality medical care possible that still meets the AFMS's strategic mission of providing "Trusted Care, Anywhere"<sup>2</sup> and the MHS's goals of the Quadruple Aim—to provide "Readiness, Better Care, Better Health, Best Value."<sup>3</sup> As a result, the AFMS is spending considerable time and resources in training medical personnel in the principles of High Reliability Organizations (HROs) and Lean process improvement principles.<sup>4</sup>

Currently, the AFMS does not have sufficient mental health personnel to meet the specialty mental health care needs of their beneficiary population. This results in many beneficiaries obtaining mental health care in the community and increasing the overall medical purchased care costs of the AFMS.<sup>5</sup> Furthermore, in many locations it is difficult to find a community mental health provider who accepts TRICARE beneficiaries and so there is a considerable delay in access to care for the few TRICARE approved providers. This results in many patients personally paying out-of-pocket for their mental health care or going without professional care at all.<sup>6</sup>

All of these factors led to the design and execution of a one year pilot study at three USAF MTFs to study the effectiveness of shifting the mental health care access point to a more efficient model of mental health care delivery that meets, not exceeds, patient care needs. The basis of this pilot study is aligned with the AFMS trusted care principle of maximizing value for the patient by treating "the right patient, at the right place, receiving the right care, at the right time."<sup>7</sup>

The three pilot study MTFs agreed to shift the access point for mental health care from the mental health clinic to the primary care clinic. Currently, the vast majority of patients who self-refer for mental health care go directly to specialty mental health services. Within primary care, the USAF has an existing program called the Behavioral Health Optimization Program (BHOP) where mental health providers are specially trained to work alongside primary care teams to address the overall needs of the beneficiary patient population. Due to differences in care delivery, BHOP providers can see twice as many patients per day as mental health clinic providers can.<sup>8</sup> Thus, by reallocating mental health clinic personnel and shifting the mental health care access point to BHOP, MTFs are able to meet more of the mental health care needs of their beneficiary population. Furthermore, since the vast majority of patients can resolve their mental health concerns at the primary care clinic with BHOP services, only a small percentage of patients are referred to specialty mental health services.<sup>9</sup> This results in the MTF mental health clinics opening access to care for more beneficiaries who have complex or severe conditions that require more intensive treatment.

### **Hypothesis**

MTFs will decrease community outpatient mental health purchased care costs, improve access to care, and intervene with more patients who otherwise would not have sought professional mental health care by shifting the mental health access point to BHOP and without funding additional mental health personnel.

## **Problem Background and Significance**

### **Mental Health Prevalence Rates**

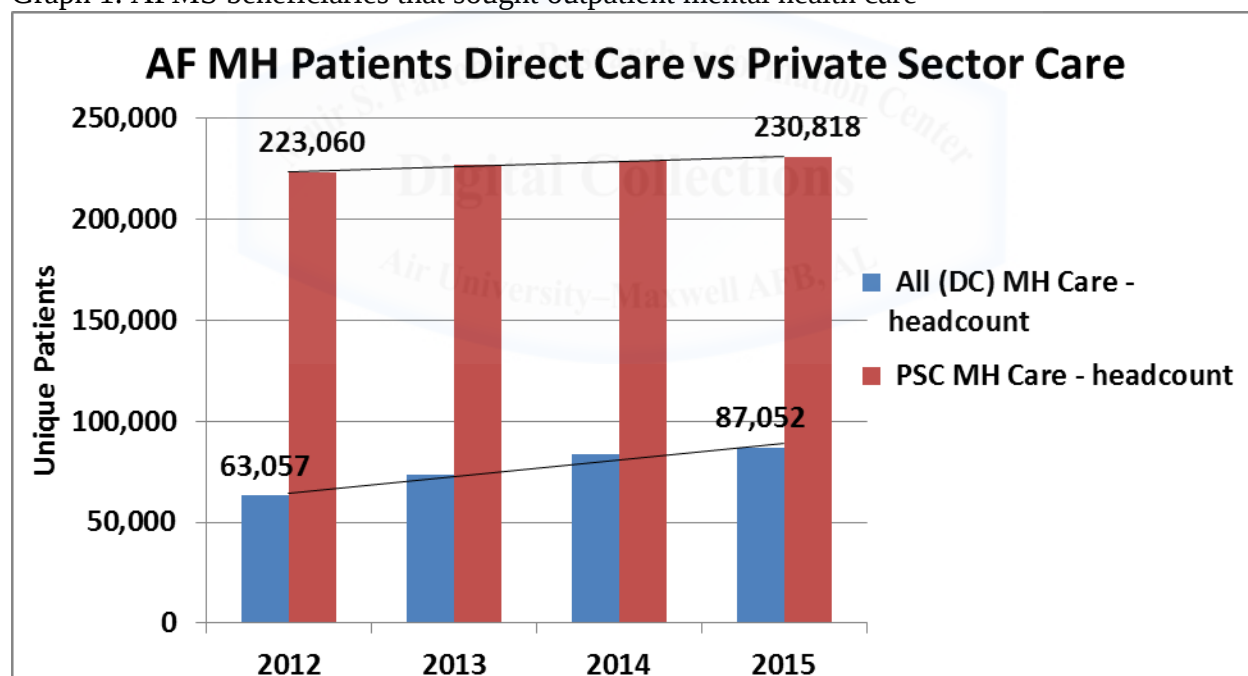
The demand for mental health services continues to rise. Data from the Substance Abuse and Mental Health Services Administration National Survey on Drug Use and Health suggests an annual incidence rate of mental health disorders among US adults in 2012 to be 18.6% of the US population, totaling an estimated 43.7 million men and women. In 2011, the percentage of annual incidence was estimated at 13.6% and approximately 31.6 million adults.<sup>10</sup> Despite the high rate of occurrence, most people will never seek the mental health care they need due to multiple factors to include, but not limited to, stigma, cost, time, and awareness of available services. It is estimated that 67% of all individuals with a diagnosable mental health disorder do not seek professional mental health care of any kind.<sup>11</sup> Furthermore, the majority of those who do seek care, obtain it from their primary care manager (PCM) who often does not have adequate time during the appointment or the clinical competency to effectively diagnose and treat mental health conditions.<sup>12</sup> Nevertheless, primary care remains the principle mental health care delivery system within the United States.

The 2015 Armed Forces Health Surveillance Center report highlighted the prevalence and impact of mental health conditions within our military population as a whole. About 18.8% of all medical encounters are due to mental health disorders (second behind injury/poisonings) and accounting for more hospital bed days than any other morbidity category and 44% of all hospital bed days overall. In addition, 21.7% of all lost work time is due to mental health conditions.<sup>13</sup>

For the AFMS specifically, outpatient mental health care demand for all beneficiaries continues to gradually increase. Graph 1 shows the number of beneficiaries who sought

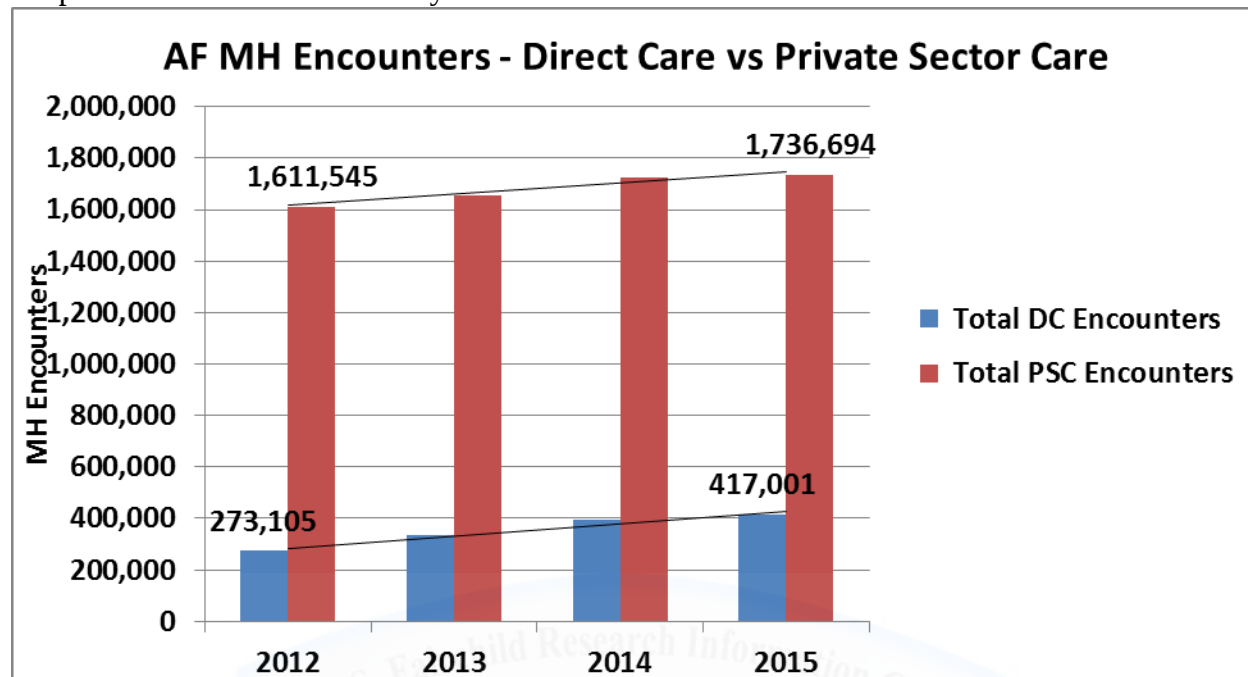
outpatient mental health related treatment at the MTF (direct care) or TRICARE approved community providers (private sector care). In total, from FY12 to FY15 the total number of beneficiaries seeking outpatient mental health care has increased from 286,117 to 317,870 respectively. This is an increase of 11.1%. It should be noted that the AF beneficiary population size has decreased 1.1% during the same timeframe from 2,610,412 in FY12 to 2,578,215 in FY15. This indicates that a greater percentage of the AFMS beneficiary population is seeking professional outpatient mental health care either through the MTF or TRICARE approved providers in the community. In FY12 10.1% and in FY15 12.3% of the AFMS beneficiary population sought outpatient mental health treatment.

Graph 1. AFMS beneficiaries that sought outpatient mental health care



Correlated to the increased population rate of beneficiaries seeking outpatient mental health care, the total number of outpatient mental health related encounters also increased by 14.3% from FY12 to FY15. See graph 2 for details. This increase demand is stressing the mental health system across the AFMS.

Graph 2. Total AFMS beneficiary mental health related encounters



Hiring and training a sufficient number of mental health providers to keep pace with the increasing demand for mental health related care is an infeasible task given current fiscal constraints. This issue is especially highlighted when looking specifically at the medical needs for the retiree population. In an Institute of Medicine (IOM) report from 2012, it was noted that the current primary care and mental health workforces do not have enough personnel to meet the mental and substance use disorder treatment needs of the rapidly growing population of older adults. The IOM report indicated that about one in five older adults have one or more mental health and substance use conditions that compounds their already preexisting medical conditions.<sup>14</sup>

Recognizing the increasing demand for mental health services and the growing body of literature supporting integrated behavioral health services within primary care,<sup>15</sup> the MHS mandated that BHOP be implemented at each MTF in 2013.<sup>16</sup> In order to meet this mandate, the

USAF authorized 95 contract personnel positions across the AFMS to provide BHOP support. As a result, BHOP services rapidly increased across the AFMS with a total of 56,707 patient encounters in 2014 with utilization rates continuing to rise in 2015.<sup>17</sup>

Despite full time BHOP services within primary care, AFMS mental health clinics continue to be overwhelmed by patient demands. This issue is compounded by Department of Defense (DoD), Air Force and local MTF policy requirements that require mental health providers to offer non-clinical consultation and support services to a variety of organizations and activities (i.e, command consultation, outreach activities, educational briefings, participation in the Integrated Delivery System, Community Action Information Board, etc.). These activities limit the availability for mental health providers to have more clinical patient encounters. The July 2015 AFMS Mental Health Productivity Dashboard indicated that mental health providers were only available for billable clinical work 52.3% of their duty day on average. This resulted in 2,731 referrals for mental health care to be deferred to the community for TRICARE services during the same one month time period.<sup>18</sup>

### **Access to Care**

In 2014, Congress mandated a review of the MHS medical care service delivery system in wake of the Veteran Affairs hospital access to care and quality of care issues that were highlighted in the media. Results from the review indicated that the MHS is an average health care organization when compared to other large organizations within the United States. However, one area that was highlighted for potential improvement was access to medical care. The MHS review reported that, “access to care is influenced by many factors, including community health care resources, insurance coverage, financial status, proximity to care, and

technology. Timely access to health care is a universal concept applicable to all health systems; however, the definitions and measures of timeliness are not standardized nationally.”<sup>19</sup>

The AFMS defines access to care standards within Air Force Instruction 44-176, *Access to Care Continuum*. For mental health related care specifically, it states that patients reporting a new mental health concern must be seen for an initial appointment within seven calendar days.<sup>20</sup> Often times, there are time delays between when a patient requests mental health care and the initial appointment due to non-availability on providers’ schedules. The AFMS mental health productivity dashboard indicates that the USAF average for meeting this standard has been between 85.7% - 91.1% since the first quarter of FY14. However, in May 2015, six out of 76 MTFs met this standard less than 60% of the time and 18 MTFs met this standard less than 90% of the time.<sup>21</sup> This data highlights that the AFMS can continue to improve access to care in their mental health clinics.

Access to care metrics that simply examine the “average” days it takes for an initial encounter can be misleading. Access to care is also examined by how many AFMS beneficiaries can obtain care at their assigned MTF. Most MTF mental health clinics within the continental United States do not provide services for dependents and retiree beneficiaries due to limited provider availability. These patient populations are forced to find services from TRICARE approved providers in the community or pay out-of-pocket for professional mental health care. Many patients will opt to not seek professional mental health care for many reasons. These reasons include, but are not limited to, complexities in accessing the system, time delays in obtaining treatment, financial costs of care, and patients’ reluctance in seeking mental health care.<sup>22</sup>

## **Mental Health Stigma**

One significant barrier to seeking mental health care is one's perception of external stereotypes and prejudices about people who seek mental health care or their internalized feelings of inferiority that perpetuate the concept of mental health stigma.<sup>23</sup> While the presence of mental health stigma is not debated within the AFMS, it is unclear how significant of a problem it is and what specific factors lead service members and their beneficiaries from seeking the care they need. As a result, the Air Force Medical Operations Agency contracted with Pennsylvania State University in 2014 to study mental health stigma in the USAF and to create a mental health seeking campaign that normalizes the idea that everyone needs help at some point in their lives and seeking help is a sign of strength and reliability.<sup>24</sup>

Research on civilian populations indicates that mental health stigma is highly influenced by cultural and societal beliefs. More specifically, men and racial/ethnic minorities have generally higher negative perceptions that the public views mental health treatment negatively when compared to women and Euro/American Caucasian individuals.<sup>25</sup> While these factors are likely generalizable to military populations, there is little published research on unique factors related to mental health stigma and mental health service utilization within the military.<sup>26</sup>

To highlight the uniqueness of military mental health stigma, one study found that active duty Service members with mental health conditions had significantly lower rates of utilizing mental health services and a higher endorsement of mental health stigma when compared to National Guard members.<sup>27</sup> Another study indicated that only 23-40% of the military population that meets diagnostic criteria for a mental health related condition had received professional help. Those who needed mental health care the most were more likely to have concerns about

stigma.<sup>28</sup> Moreover, military members are concerned on how seeking mental health services will impact their careers, how their peers and leadership will perceive them, and how mental health treatment can affect their security clearances.<sup>29</sup>

Within the USAF, Airmen on flying status or certified for nuclear duties within the personnel reliability program have less incentive to seek mental health care.<sup>30</sup> Restrictive policies are in place to protect the mission and safety of others but often times require these specially trained Airmen be temporarily removed from duty while engaged in mental health related care. During a personal interview, a fighter pilot disclosed that “most pilots” could benefit from mental health related care at some point in their career but will not seek it because of the negative perceptions command and peers have on seeking care and how it may potentially harm their flying careers. Additionally, this pilot reported that he does not believe that the presence of most mental health conditions impact his ability to perform his flying mission safely. He claims that due to the rigorous screening process and training programs, pilots have a heightened capacity to compartmentalize and manage significant levels of stress. This pilot also conceded that the stresses of the job coupled with a culture of not seeking help contribute to pilots experiencing alcohol misuse and spousal divorce.<sup>31</sup>

### **Potential Solution**

#### **Behavioral Health Optimization Program (BHOP)**

The USAF primary care behavioral health program known as BHOP is a potential solution to meeting the mental health demand of the AFMS beneficiary population and providing services to patients who otherwise would not have sought professional mental health related care. BHOP is an evidence based consultative model that is fully integrated within primary care.<sup>32</sup> The USAF’s BHOP model specifically, and the civilian primary care behavioral health model more

generally, have been extensively researched to demonstrate effectiveness of treating a wide variety of mental and behavioral health conditions.<sup>33</sup>

In this consultative model, the primary care behavioral health provider, known as the Internal Behavioral Health Consultant (IBHC) conducts focused functional assessments for a wide variety of both traditional mental health conditions (i.e., depression, anxiety, stress, etc.) as well as behavioral health aspects of medical and behavioral conditions (i.e., diabetes, chronic pain, sleep, weight management, sexual dysfunction, etc.). From this focused functional assessment, the IBHC can determine the appropriate level of care needed to meet the patients' needs. BHOP interventions are typically brief in length and duration so that there is more availability for patients to receive services. The IBHC will typically meet with patients for 20-30 minute appointments and usually no more than four appointments spaced out over time. Exceptions to this include having longer appointments to adequately assess safety concerns when they arise and providing longer term care for continuity consultation management plan appointments for chronic medical and behavioral conditions that are coordinated with the patient's PCM. If a patient's presenting problem or condition is too complex or severe to meet treatment goals within this brief BHOP model, the IBHC will refer the patient to specialty mental health services to include individual and group psychotherapy, support and process groups, psychological testing, diagnostic assessments, specialty evaluations, and treatment and management of patients at significant risk to harm themselves or others. Refer to Table 1 for conceptual distinctions between internal behavioral health consultation and specialty mental health services.

Table 1. Defining characteristics of the consultation vs. specialty treatment models

| <b>Dimension</b>                             | <b>BHOP Services</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Specialty Mental Health Care</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1. Model of care</b>                      | Population-based                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Patient-based                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>2. Primary customers</b>                  | PCM, then patient                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Patient, then others                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>3. Primary goals</b>                      | a) Promote PCM effectiveness<br>b) Improve behavioral health of population<br>c) Support small patient-change efforts<br>d) Prevent morbidity in high-risk patients<br>e) Achieve medical cost offset<br>f) Improve patient access to medical and mental health services                                                                                                                                                                                                                                                      | Resolve patient's mental health concerns                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>4. Service delivery structure</b>         | Part of primary care services                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | A specialized service, outside of the primary care clinic                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>5. Who is "in charge" of patient care</b> | PCM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Therapist                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>6. Primary modality</b>                   | Consultation model                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Specialty treatment model                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>7. Team structure</b>                     | Part of primary care team                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Part of specialty mental health team                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>8. Access standard</b>                    | Determined by PCM/patient preference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Determined by patient preference                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>9. Cost per episode of care</b>           | Potentially decreased                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Highly variable, related to patient condition                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>10. Type of service</b>                   | <b>Consultation:</b> <ul style="list-style-type: none"> <li>• IBHC conducts functional assessments as primary modality</li> <li>• Primary emphasis on behavioral evidence-based practice to promote change</li> <li>• Lower intensity, longer time between appointments</li> <li>• Support PCM decision-making</li> <li>• Build on PCM interventions</li> <li>• Teach PCM "core" behavioral health skills</li> <li>• Educate patient in self-management skills</li> <li>• Improve PCM/patient working relationship</li> </ul> | <b>Specialty Treatment:</b> <ul style="list-style-type: none"> <li>• Formal, requires intake assessment, treatment planning</li> <li>• Manage more serious mental disorders as primary MH provider</li> <li>• Higher intensity, involving more concentrated care</li> <li>• Patient seen in regularly scheduled intervals (e.g., weekly)</li> <li>• Education model is secondary</li> <li>• Home practice linked back to treatment in session</li> <li>• PCM rarely involved in visits with patient</li> </ul> |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <ul style="list-style-type: none"> <li>• Monitor, with PCM and/or BHCF, “at-risk” patients</li> <li>• Manage chronic patients with PCM</li> <li>• Assist in team-building</li> <li>• Limited to one to four visits (typically)</li> <li>• 30-minute visits (typically)</li> <li>• Therapeutic relationship not primary focus</li> <li>• Visits are timed around PCM visits</li> <li>• Long-term follow up rare, typically reserved for chronic or recurrent conditions in a “continuity consultation” approach</li> <li>• When long-term follow up occurs, frequency is decreased (e.g., quarterly appointments)</li> <li>• May involve PCM in visits with patient</li> <li>• PCM remains primary contact for the patient</li> <li>• PCM oversees/reinforces/follows through with relapse prevention or maintenance treatment as needed</li> <li>• Focused consultation report to PCM</li> <li>• Part of the EMR and primary care chart; thus not marked “sensitive” unless absolutely necessary</li> </ul> | <ul style="list-style-type: none"> <li>• Therapist remains primary contact</li> <li>• Session number varies, related to patient condition</li> <li>• 50-90 minute sessions</li> <li>• Therapeutic relationship is considered critical for change to occur</li> <li>• Therapeutic relationship built to last over time</li> <li>• Visit structure not related to medical visits</li> <li>• Long-term follow up encouraged for most patients</li> <li>• Face-to-face contact is primary treatment vehicle</li> <li>• Therapist provides any relapse prevention or maintenance treatment</li> <li>• Patient self-refers or is referred by others</li> <li>• Specialty treatment notes (i.e., intake or progress notes); currently kept separate from EMR</li> <li>• Included in the EMR but marked “sensitive,” restricting who may view the contents</li> </ul> |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

*Reprinted From Air Force Medical Operations Agency. Primary Care Behavioral Health Services: Behavioral Health Optimization Program, 2014, 33.*

A pilot study of BHOP was initiated in 1997 at three USAF MTFs. Due to the success of the pilot study, all USAF psychology and social work residency programs started certifying their residents in BHOP in accordance with the primary care behavioral health core competency tool

to ensure providers had the competencies to work in a primary care environment.<sup>34</sup> As active duty mental health providers moved to their new duty assignments after residency, it was left to the discretion of the mental health clinic flight commander to determine how much time, if any, a provider could support their local BHOP program. At best, active duty providers would only spend a few hours per week in BHOP due to the demands in the mental health flight. PCMs voiced frustration of not having regular access to the IBHC in BHOP, which led to low utilization of BHOP services.<sup>35</sup>

The DoD medical leadership saw value in the BHOP program and in FY12 authorized funding for each of the Services to hire full time civilian and contract IBHCs to follow the primary care behavioral health model. In 2013, a DoD instruction mandated that an IBHC be placed in every primary care clinic that had a minimum of 3,000 adult enrollees.<sup>36</sup> The USAF authorized 95 contract IBHC positions in 71 MTFs to meet this DoD requirement.

The mission of BHOP is to provide evidence-based care with a focus on improving daily functioning, military readiness, and reduced reliance on specialty mental health services.<sup>37</sup> The model and training approach for BHOP has been researched and shared with the civilian world in a number of publications.<sup>38</sup> The BHOP model takes a population health and preventive medicine approach in recognizing and managing behavioral health conditions within primary care.

The BHOP program was created out of necessity, not preference. Civilian data suggests that more than 50% of all mental health disorders are treated within primary care. While most patients with a diagnosable mental health disorder never seek treatment,<sup>39</sup> 80% of them will visit primary care at least once per year.<sup>40</sup> Primary care is an excellent location to identify and intervene with this population. Unfortunately, most PCMs do not have the mental health competency or sufficient time to address these clinical needs. Research has demonstrated that

only 15% of patients who were referred by their PCM to specialty outpatient mental health services actually attended their first appointment. In stark contrast, 90% of patients referred to an embedded IBHC attended their first appointment.<sup>41</sup> Hence, integrated IBHCs provide a valuable service for the patients and the PCMs.

### **Why not provide specialty mental health in primary care?**

There are a number of models for integrating behavioral health into primary care. While each model of integrated care is functionally different, these terms are often used interchangeably and indiscriminately which causes confusion. Integrated behavioral health care models are distinguished most easily by the varying degrees of collaboration (e.g., consultative; coordinated; co-located; embedded; care management; co-provisional) that occur between medical and behavioral health clinics and providers. The most basic form of collaboration is a unidirectional sharing of information in the form of a courtesy copy of a report from a mental health specialist to a primary care provider. The second level, which appears to be the most common to date, is co-location. This model of care is when behavioral health and medical providers each provide different services with different treatment plans and operate on different systems while practicing in the same facility. At the highest level of integration, medical and behavioral health providers work together as a unified team, providing a unified treatment plan, to provide comprehensive patient care needs for their population.

BHOP is a consultative model that adheres to follow the highest level of integration with the main goal to improve the overall health of the population. A consultative model implies that the behavioral health provider is a consultant to the primary care team (who maintains primary responsibility for the patient) and does not function as a specialty mental health provider. In

other words, simply co-locating specialty mental health providers within primary care clinics is not likely to produce outcomes consistent with population health management goals.<sup>42</sup>

In 2013-2014, Davis-Monthan AFB agreed to a pilot study of providing co-located full spectrum specialty mental health services within primary care. During this study, a contract psychiatrist was funded to work in primary care with two other mental health providers who were providing full spectrum psychotherapy. Results from this pilot study posted high PCM satisfaction by having easy access to the psychiatrist for consultation on psychotropic prescribing issues and an increase number of patients served at the MTF for psychotropic medication treatment. On the surface, the results looked like a great success. However, when taking into context that an additional psychiatrist was funded specifically for this pilot study, the overall project was deemed a failure. Results about the number of patients served were no different than if the AFMS funded an additional psychiatrist at each MTF's specialty mental health clinic. Unfortunately, the AFMS does not have the funding to do this and the shortage of psychiatrists across the nation makes this infeasible.

One of the main benefits of the primary care behavioral health consultative model is that it is more efficient in meeting the patient's treatment needs, not exceeding it. Data from the USAF BHOP program in 2003 suggests that over 90% of patients seen in BHOP were managed at the primary care level and never needed a referral to a specialty outpatient mental health clinic. The average number of BHOP visits for patients was 1.6.<sup>43</sup> This average number of visits is far less than the average 9.4 sessions for clients seen in civilian specialty mental health in a given year.<sup>44</sup>

BHOP is not intended to replace specialty mental health clinics. Specialty mental health clinics will continue to provide vital care for those individuals with more complex and acute

mental health needs. It is absolutely certain however, that BHOP can decrease the demand on specialty mental health services so that they can focus on more acute and complex cases as well as open their services to more beneficiaries. BHOP services help increase the access to mental health related care. Finally, by making BHOP a routine element of the patient centered medical home (PCMH), it will reduce a barrier of stigma associated with receiving mental health related care.<sup>45</sup>

## **Method**

### **Procedure**

Data in the present study are based on a one year pilot study for the duration of FY15 (October 2014 - September 2015) to evaluate the effectiveness of shifting the access point for mental health care from the mental health clinic to BHOP services within primary care. Primary care and central appointment line staff were trained to book appointments directly into the IBHCs' schedules for patients self-referring for mental health related care. Mental health clinic staff was also trained to triage patients and determine if the patient could be seen in BHOP or if they required specialty mental health clinic services. If the patient needed BHOP services, the mental health technician would escort them to BHOP for a same day appointment or they would book them an appointment with BHOP at the patient's earliest convenience. The rules of engagement for this study was that all patients with mental health related concerns would be seen in BHOP first, unless there was a risk to harm themselves or others, the presenting problem was related to substance abuse or domestic maltreatment, the patient has been previously seen in the mental health clinic and preferred to be seen there, or the patient required a special duty evaluation (i.e., command directed evaluation, fitness for duty, applying to become a military

training instructor, etc.). All beneficiaries had the option to self-refer to a community TRICARE network provider without a referral in accordance with current policy.

Since FY12, each MTF has been authorized at least one full time IBHC contractor to support the PCMs with mental health and behavioral health issues. Due to the expected increased demand of BHOP services as part of this pilot study, the mental health clinic was required to reallocate a BHOP trained active duty psychologist or social worker at least part time to offset the increased work load. Additionally, a mental health technician was reallocated to BHOP to become a behavioral health technician (BHT) to support the IBHCs with both clinical and administrative functions. Pilot study sites were encouraged to have IBHCs and BHTs work closely together on clinical patient encounters in a similar way as a PCM and medical technician (4N) do. The BHTs were encouraged to conduct the initial assessment of the patient before handing the patient off to the IBHC to clarify the assignment and then determine appropriate treatment for the patient. The purpose for this IBHC and BHT partnership was twofold: First, BHT involvement would increase the availability for the IBHC to engage in more clinical encounters per day. Secondly, BHTs would gain valuable clinical skills by being more involved in the patient's care. This in turn would increase their readiness skills to support mental health mission in a deployed environment.

This pilot study did not change the BHOP model at all. If a patient's conditions were too severe or complex to effectively treat within the BHOP model, they were referred to appropriate specialty mental health services. Even if patients were self-referred to BHOP, the IBHC would alert the patient's PCM of their appointment and treatment recommendations they provided. The IBHC and PCM would decide if collaboration on future medical appointments was needed.

Before the pilot study began, the MTFs launched a comprehensive strategic messaging campaign to alert the population and military leadership about the changes to accessing mental health care. Mental health and BHOP staff briefed commanders and first sergeants about these changes, base newspaper articles were written, and MiCare messages (secure messaging) were sent to beneficiaries alerting them of the services available within primary care.

This study was reviewed and approved by the Wilford Hall Institutional Review Board (IRB).

### **Participants**

It was determined that the three continental USAF MTFs chosen to participate in this pilot study would have to be different in geographical location and empanelment size so that the results of the study could be reasonably generalized to other MTFs. Solicitation for MTF participation in the pilot study was sought in June and July 2014. Six MTFs confirmed interest in participating in the study. Each MTF was ranked based on empanelment size, current MTF manning, mental health clinic access to care rates, and staff responsiveness to previous studies and projects. The three MTFs selected were Lackland AFB, Keesler AFB, and Shaw AFB.

Wilford Hall - Lackland AFB, Texas had an average of 54,269 patients empaneled at their MTF in FY14. They are the largest MTF in the USAF. Before the pilot study began, Lackland AFB had 1.25 full-time equivalent (FTE) IBHCs and 9.75 FTEs for mental health clinic therapists. Full time equivalent is a measure of what percentage of time a provider is available for billable clinical care.

Keesler AFB, Mississippi had an average of 25,624 patients empaneled at their MTF in FY14. Before the pilot study began, Keesler AFB had 2.3 FTEs for IBHCs and 6 FTEs for mental health clinic therapists.

Shaw AFB, South Carolina had an average of 13,579 patients empaneled at their MTF in FY14. Before the pilot study began, Shaw AFB had 1 full time IBHC and 4 FTEs for mental health clinic therapists.

### **Measures**

A variety of data was collected for this pilot study during FY15 for both BHOP and the mental health clinic. No patient identifying information was published with this data set. The data was collected and analyzed each quarter of the pilot study and compared to baseline FY14 data. Most of the process data was obtained centrally from the Military Health System Management Tool (M2). Outcome data was collected through a Microsoft Access database at each MTF and submitted to the Air Force Medical Operations Agency (AFMOA) at the end of each quarter.

### **Process Metrics**

The following data was collected for BHOP and mental health clinics at each MTF:

- Number of patient encounters per BHOP and mental health clinics
- Number of unique patients per BHOP and mental health clinics
- Number of active duty, contract, and civilian IBHCs and mental health clinic therapists (FTE position filled for two of three months)
- Average number of visits per patient
- Number of no-show appointments
- Access to care (days it took to be seen for initial appointment)
- Number of referrals that went from BHOP to specialty mental health services
- Number of referrals from the mental health clinic to BHOP
- TRICARE funding spent in the community on outpatient mental health therapy

### **Outcome Measures**

The following outcome measures were collected before the pilot study started and then at each quarter for the duration of the study. No identifying information was obtained on any of these measures.

**Anonymous Patient Questionnaire for Behavioral Health Consultant Services.** This is a brief, self-report questionnaire to measure patient satisfaction with their BHOP appointment (see Appendix A). This questionnaire was updated two times during the pilot study to assess specific aspects of the pilot study. Questions 11-15 were added at the beginning of the third quarter to assess patients' willingness to access mental health care at a mental health clinic and other patient-centered experience questions. Questions 16-18 were added at the beginning of the fourth quarter to measure patient satisfaction with BHT services (if applicable).

Each MTF was encouraged to collect a minimum of 80 patient satisfaction questionnaires per quarter. Following IBHC appointments, patients were offered the opportunity to fill out the anonymous patient satisfaction questionnaire. Patients voluntarily completed these forms and dropped their questionnaire off in a box in the waiting room lobby or BHT office. MTF program managers entered patient satisfaction responses into the Microsoft Access database and emailed compiled results to AFMOA.

**Internal Behavioral Health Consultant Satisfaction Questionnaire.** This is a brief, self-report questionnaire to measure IBHC role satisfaction (see Appendix B). IBHCs were asked to complete this anonymous satisfaction questionnaire each quarter in order to measure changes in job satisfaction due to changing the mental health care access point to BHOP. MTF program managers entered IBHC responses into the Microsoft Access database and emailed compiled results to AFMOA.

**Behavioral Health Technician Satisfaction Questionnaire.** This is a brief, self-report questionnaire to measure BHT role satisfaction (see Appendix C). This questionnaire was developed and implemented at the end of the pilot study to obtain a standardized measure of BHT satisfaction with this new role. The questionnaire utilized similar questions as the IBHC

satisfaction questionnaire to maintain consistency. Questions were only altered to better match the BHTs' role in BHOP. BHTs were asked to complete this anonymous satisfaction questionnaire and email completed questionnaires to AFMOA.

**Mental Health Clinic Therapist Satisfaction Questionnaire.** This is a brief, self-report questionnaire to measure mental health clinic therapist satisfaction (see Appendix D). Therapists were asked to complete this anonymous satisfaction questionnaire each quarter in order to measure changes in job satisfaction due to changing the mental health care access point to BHOP. MTF program managers entered therapist satisfaction responses into the Microsoft Access database and emailed compiled results to AFMOA.

## Results

Data for this study was obtained from a number of sources. Primarily, data was obtained from the electronic health record through repository databases called the TRICARE Operations Center and Military Health System Management Tool (M2). Satisfaction data and referrals from BHOP to specialty mental health care were logged into a Microsoft Access database by the program manager at each pilot site MTF. An analysis of statistical significance was not conducted. Rather an analysis of descriptive statistics was performed to capture general trends and practical significance in comparing a baseline year of FY14 to the pilot study implementation during FY15.

### **Mental Health Clinic and BHOP Provider Manning**

Pilot site program managers reported mental health clinic therapist and IBHC manning data in FTE relevancy for how much time each provider was actually available for clinical care in their respective clinics. Due to constant manning changes, data was collected for each quarter of FY14 and FY15 to better analyze pilot study metrics based on the availability of mental health

personnel at each MTF. The tables below display the IBHC and mental health clinic therapist manning for each MTF.

Combined FTE manning between BHOP and mental health clinic therapists at Lackland AFB manning ranged between 9.5 to 11 FTEs (average manning per quarter was 10.25 FTEs) in FY14. In FY15, Lackland AFB manning ranged between 5.08 to 11.75 FTEs (average manning per quarter was 9.05 FTEs). This was an 11.7% decrease in total MTF manning availability from FY14 to FY15. In FY15, there were an average 2.25 FTE IBHCs and 6.55 FTE mental health clinic therapists. See table 2 for details.

Table 2. Lackland AFB FTE providers

| <b>Provider Type</b>           | <b>FY14<br/>Qtr1</b> | <b>FY14<br/>Qtr2</b> | <b>FY14<br/>Qtr3</b> | <b>FY14<br/>Qtr4</b> | <b>FY15<br/>Qtr1</b> | <b>FY15<br/>Qtr2</b> | <b>FY15<br/>Qtr3</b> | <b>FY15<br/>Qtr4</b> |
|--------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b># of AD BHOP Providers</b>  | .75                  | .75                  | .75                  | .75                  | 1.5                  | 1.5                  | 1                    | .75                  |
| <b># of CTR BHOP Providers</b> | 0                    | 0                    | 0                    | .5                   | .75                  | 1.75                 | 1.75                 | 1                    |
| <b># of AD MH Therapists</b>   | 6                    | 7.5                  | 6.75                 | 5.75                 | 5.25                 | 5.75                 | 2.57                 | 2.03                 |
| <b># of CTR MH Therapists</b>  | 2.5                  | 1                    | 1                    | 3                    | 2.25                 | 1.75                 | 2.73                 | 1.3                  |
| <b># of CIV MH Therapists</b>  | 1                    | 1                    | 1                    | 1                    | 1                    | 1                    | .58                  | 0                    |
| <b>Total</b>                   | 10.25                | 10.25                | 9.5                  | 11                   | 10.75                | 11.75                | 8.63                 | 5.08                 |

Combined FTE manning between BHOP and mental health clinic therapists at Keesler AFB manning ranged between 8.4 to 13 FTEs (average manning per quarter was 10.95 FTEs) in FY14. In FY15, Keesler AFB manning ranged between 6.2 to 8.75 FTEs (average manning per quarter was 6.84 FTEs). This was a 37.5% decrease in total MTF manning availability from FY14 to FY15. In FY15, there were an average 2.34 FTE IBHCs and 4.5 FTE mental health clinic therapists. See table 3 for details.

Table 3. Keesler AFB FTE providers

| <b>Provider Type</b>           | <b>FY14<br/>Qtr1</b> | <b>FY14<br/>Qtr2</b> | <b>FY14<br/>Qtr3</b> | <b>FY14<br/>Qtr4</b> | <b>FY15<br/>Qtr1</b> | <b>FY15<br/>Qtr2</b> | <b>FY15<br/>Qtr3</b> | <b>FY15<br/>Qtr4</b> |
|--------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b># of AD BHOP Providers</b>  | 1                    | 1                    | .4                   | .4                   | .75                  | .2                   | .2                   | .2                   |
| <b># of CTR BHOP Providers</b> | 1                    | 2                    | 2                    | 2                    | 2                    | 2                    | 2                    | 2                    |
| <b># of AD MH Therapists</b>   | 4                    | 4                    | 4                    | 3                    | 3                    | 2                    | 2                    | 2                    |
| <b># of CTR MH Therapists</b>  | 4                    | 4                    | 2                    | 2                    | 2                    | 2                    | 2                    | 2                    |
| <b># of CIV MH Therapists</b>  | 2                    | 2                    | 2                    | 1                    | 1                    | 0                    | 0                    | 0                    |
| <b>Total</b>                   | 12                   | 13                   | 10.4                 | 8.4                  | 8.75                 | 6.2                  | 6.2                  | 6.2                  |

Combined FTE manning between BHOP and mental health clinic therapists at Shaw AFB manning ranged between 5 to 6.5 FTEs (average manning per quarter was 6.125 FTEs) in FY14. In FY15, Shaw AFB manning ranged between 5.5 to 8 FTEs (average manning per quarter was 6.5 FTEs). This was a 6.1% increase in total MTF manning availability from FY14 to FY15. In FY15, there were an average 1.375 FTE IBHCs and 5.125 FTE mental health clinic therapists. See table 4 for details.

Table 4. Shaw AFB FTE providers

| <b>Provider Type</b>           | <b>FY14<br/>Qtr1</b> | <b>FY14<br/>Qtr2</b> | <b>FY14<br/>Qtr3</b> | <b>FY14<br/>Qtr4</b> | <b>FY15<br/>Qtr1</b> | <b>FY15<br/>Qtr2</b> | <b>FY15<br/>Qtr3</b> | <b>FY15<br/>Qtr4</b> |
|--------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b># of AD BHOP Providers</b>  | 0                    | 0                    | 0                    | 0                    | 1                    | .5                   | 1                    | 1                    |
| <b># of CTR BHOP Providers</b> | 1                    | 1                    | 1                    | 1                    | 1                    | 1                    | 0                    | 0                    |
| <b># of AD MH Therapists</b>   | 2.5                  | 2.5                  | 2.5                  | 2                    | 3                    | 2.5                  | 2.5                  | 2.5                  |
| <b># of CTR MH Therapists</b>  | 3                    | 3                    | 3                    | 2                    | 3                    | 3                    | 2                    | 2                    |
| <b># of CIV MH Therapists</b>  | 0                    | 0                    | 0                    | 0                    | 0                    | 0                    | 0                    | 0                    |
| <b>Total</b>                   | 6.5                  | 6.5                  | 6.5                  | 5                    | 8                    | 7                    | 5.5                  | 5.5                  |

### **Fidelity to the BHOP Model and the BHOP Pilot Study Protocol**

BHOP pilot study program managers at each MTF were asked to provide an assessment of how well their IBHCs followed the BHOP model as outlined in the BHOP Manual as well as how well their MTF followed the BHOP pilot study protocol during FY15.

The Lackland AFB BHOP pilot study program manager reported that the IBHCs performed well in adhering to the BHOP model as outlined in the BHOP practice manual. This was observed by IBHCs concluding appointments in 30 minutes or less most of the time and good performance on monthly peer review items. One of the most difficult barriers they experienced was getting the mental health clinic to refer initial patients to BHOP. It was difficult to train and get the large number of mental health clinic staff on the same page with how to triage and make decisions about when it would be appropriate for patients to be connected with BHOP and when they should remain in the mental health clinic. Another barrier Lackland AFB experienced was that PCM teams were not empowered to book initial BHOP appointments for their patients and would escort them to the BHT office for scheduling. This process limited the availability for the BHTs to be more involved in clinical patient encounters. Both of these issues were resolved toward the end of the pilot study and the leadership at Lackland AFB agreed to continue to have the mental health care access point be at BHOP due to the benefits they experienced during the pilot study.

The Keesler AFB BHOP pilot study program manager reported that they experienced some barriers that impacted their ability to adhere to the BHOP model and BHOP pilot study protocol. Their two contract IBHCs regularly spent an average of 45 minutes with their BHOP patients despite continuous training and oversight by the local BHOP program manager. Both contractors reported that they were better fit to work in specialty mental health environments and

left their BHOP positions at the end of the pilot study. The Keesler AFB BHOP program manager also reported that the primary care clinic PCM teams and leadership placed all BHOP scheduling and administrative duties on the BHOP team. This extra burden led the BHT to not have time to participate in the clinical care of the BHOP patients. Additionally, for the first three quarters of the pilot study, the mental health clinic would not support BHOP with acute or suicidal patients which led to longer appointment times for these patients in BHOP and decreased access for non-acute patients. While these barriers continue to be worked out at the MTF, the pilot study program manager reported that primary care and mental health clinic leadership agreed to continue to have the mental health care access point be at BHOP due to the benefits they experienced during the pilot study.

The Shaw AFB BHOP pilot study program manager reported that IBHC manning difficulties made it difficult to adhere to the BHOP pilot study protocol for the entire fiscal year. The Shaw AFB BHOP program manager deployed and did not return to BHOP clinical care until June 2015. The IBHC and BHT started to work collaboratively as a team during patient encounters upon his return to clinic duties. Before this time, the BHT was mainly utilized for administrative BHOP duties. The Shaw AFB BHOP program manager reported that their contract IBHC consistently struggled to manage patients at the appropriate level of care. The contract IBHC referred patients to the mental health clinic prematurely and frequently had patient encounters for longer than thirty minutes for the patients that were treated in BHOP. Due to the BHOP pilot program manager being deployed, it was not possible to provide adequate training to the contract IBHC to correct these fidelity issues. The contract IBHC quit the position in March 2015 and the position was left vacant for the duration of the pilot study.

Despite these manning issues, Shaw AFB leadership agreed to continue to have the mental health care access point be at BHOP due to the benefits they experienced during the pilot study.

### **Beneficiary Population Changes**

From FY14 to FY15 Lackland AFB experienced a decrease in beneficiary population from 54,269 to 46,997 (decrease of 13.4%). Keesler AFB also experienced a decrease in beneficiary population from 25,624 to 24,861 (decrease of 3%). Lastly, Shaw AFB also experienced a slight decrease in beneficiary population from 13,579 to 13,347 (decrease of 1.7%). It should also be noted that the total AFMS beneficiary population only decreased .8% during the same timeframe from 2,600,360 in FY14 to 2,578,215 in FY15.

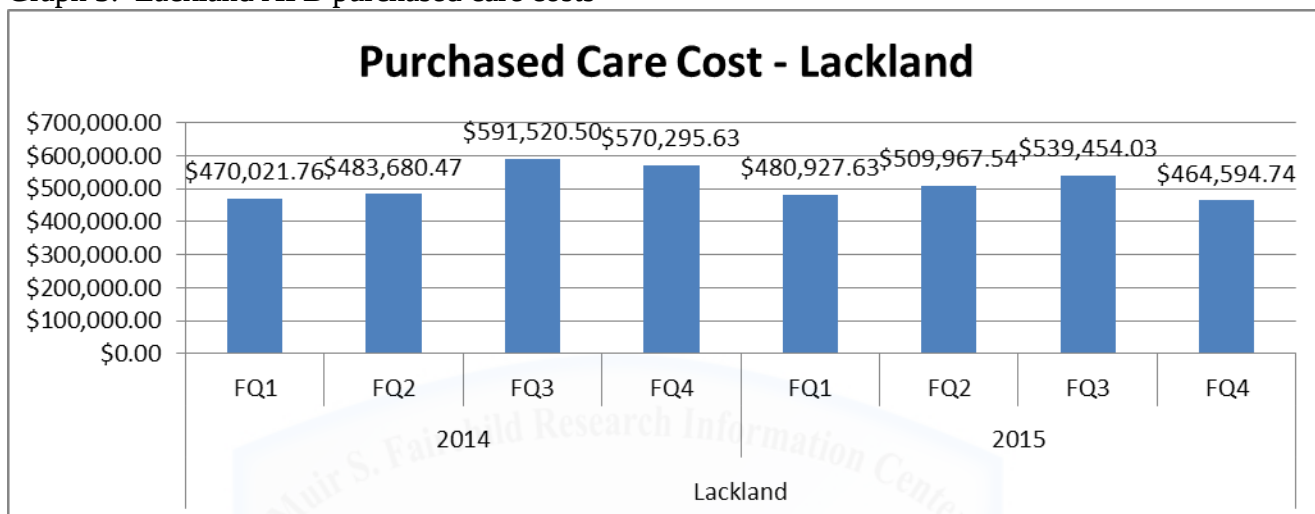
### **Purchased Care**

This data was obtained for any AFMS beneficiary who obtained outpatient mental health therapy through a TRICARE approved community provider. The results of this data indicate that the three pilot study MTFs performed better than the rest of the USAF. From FY14 to FY15 the USAF (excluding the three pilot study MTFs) increased community purchased care costs by 15.7% from \$36,067,677.08 to \$41,747,642.13. Lackland AFB experienced a 5.7% decrease in purchased care costs from \$2,115,518.36 to \$ 1,994,943.94. Keesler AFB experienced a 6.4% increase in purchased care costs from \$695,191.62 to \$739,997.21. Lastly, Shaw AFB experienced a 10.8% decrease in purchased care costs from \$485,105.67 to \$432,571.78.

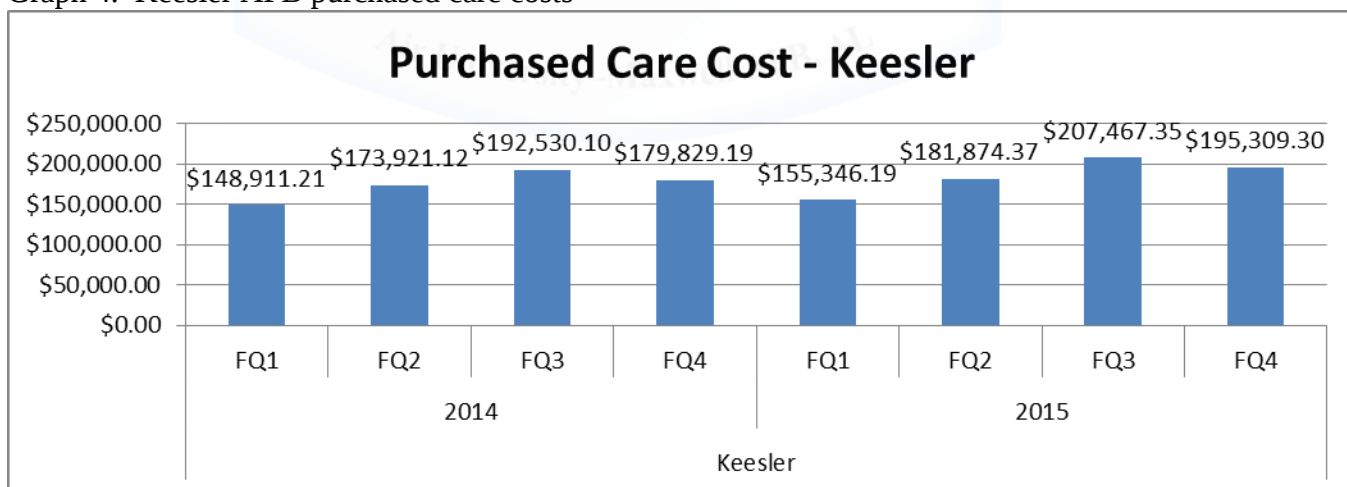
An analysis of quarterly data indicated that Lackland and Shaw AFBs experienced significant decreases in purchased care costs for third and fourth quarters when comparing FY14 to FY15. Lackland AFB experienced an 8.8% decrease in quarter three and a 23% decrease in quarter four (see graph 3). Similarly, Shaw AFB experienced a 19.1% decrease in quarter three and a 29.5% decrease in quarter four (see graph 5). It should be noted that Lackland and Shaw

AFBs also reported higher fidelity to the BHOP pilot study protocol and model of care during quarters three and four as well. Keesler AFB did not experience any significant changes in purchased care costs when analyzing the quarterly data when compared to yearly averages (see graph 4).

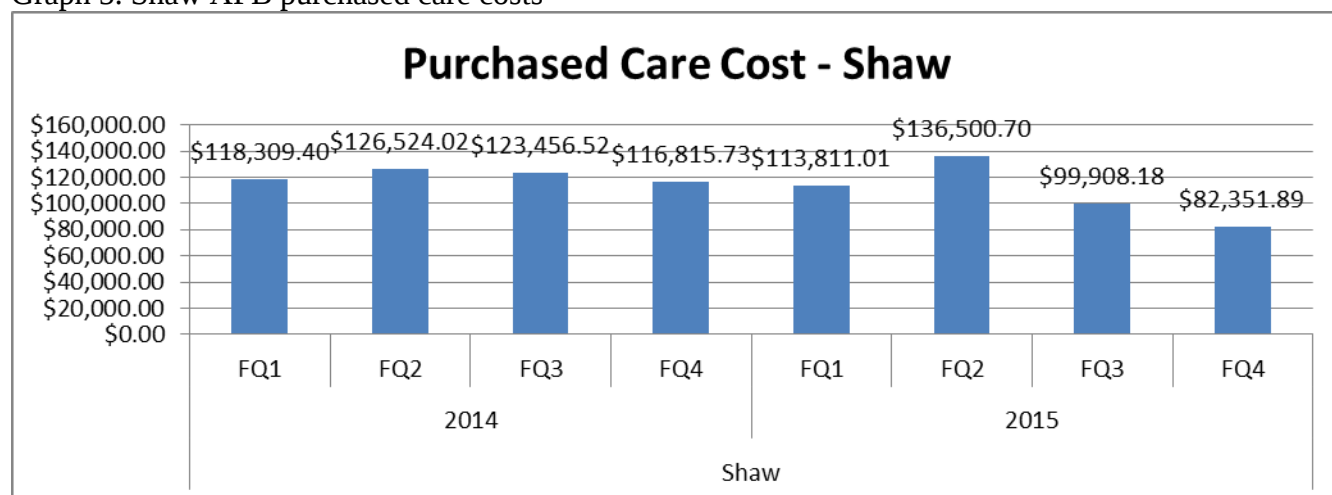
Graph 3. Lackland AFB purchased care costs



Graph 4. Keesler AFB purchased care costs



Graph 5. Shaw AFB purchased care costs



### Access to Care

Same day appointment availability is one of the hallmark services in BHOP that is not usually available in USAF mental health clinics. ACUT or OPAC appointment type specifiers on IBHCs' schedules are reserved for same day appointments. Lackland and Keesler AFBs did not use ACUT or OPAC appointment types in the first quarter of FY15 but were accepting walk-ins or same day appointments. Therefore, an average of kept ACUT or OPAC appointments in quarters two through four were used to estimate quarter one data. See table 7 below for details.

Table 7. BHOP same day access to care

| MTF                 | FY15 BHOP Unique Patients | ACUT/OPAC Appointments |
|---------------------|---------------------------|------------------------|
| <b>Lackland AFB</b> | 3,264                     | 667                    |
| <b>Keesler AFB</b>  | 1,784                     | 184                    |
| <b>Shaw AFB</b>     | 1,416                     | 130                    |

The BHOP clinic at Lackland AFB had 20% of their patients seen as a walk-in or same day appointment in FY15 (3,264 unique patients and 667 ACUT or OPAC appointments). The BHOP clinic at Keesler AFB had 10% of their patients seen as a walk-in or same day appointment in FY15 (1,784 unique patients and 184 ACUT or OPAC appointments). The

BHOP clinic at Shaw AFB had 9% of their patients seen as a walk-in or same day appointment in FY15 (1,416 unique patients and 130 ACUT or OPAC appointments).

Some patients did not wish for a same day appointment in BHOP. Therefore, access to care was measured by the average days it took for patients to attend their first appointment in BHOP or to see a therapist in the mental health clinic. Results indicate that access to care in BHOP and the mental health clinic did not experience considerable changes due to the pilot study in FY15. The one exception to this was that Lackland AFB experienced a better access to care in BHOP from FY14 (10.50 average days) to FY15 (5.08 average days). See table 5 for average days it took a patient to receive their first BHOP appointment and table 6 for the average days it took to be seen for an initial mental health clinic appointment. Keesler and Lackland AFBs both experienced a quicker access to care for patients who went to BHOP rather than the mental health clinic for their first appointment (4.16 to 6.49 and 5.08 to 6.72 respectively). Shaw AFB experienced the opposite with patients able to access their first appointment in the mental health clinic quicker than BHOP (6.41 for BHOP and 5.18 for the mental health clinic).

Table 5. BHOP average days taken for first appointment

| <b>FY</b> | <b>AFMS</b> | <b>Lackland</b> | <b>Keesler</b> | <b>Shaw</b> |
|-----------|-------------|-----------------|----------------|-------------|
| 2014      | 4.09        | 10.50           | 3.41           | 6.72        |
| 2015      | 4.24        | 5.08            | 4.16           | 6.41        |

Table 6. Mental health clinic average days taken for ROUT appointment type

| <b>FY</b> | <b>AFMS</b> | <b>Lackland</b> | <b>Keesler</b> | <b>Shaw</b> |
|-----------|-------------|-----------------|----------------|-------------|
| 2014      | 6.04        | 6.03            | 6.24           | 5.91        |
| 2015      | 5.71        | 6.72            | 6.49           | 5.18        |

### **Referrals from the Mental Health Clinic to BHOP**

Patients who showed up in person or called the mental health clinic for an initial appointment and were screened and referred to BHOP were counted as a referral from the mental health clinic to BHOP. There is no automated database to collect this information. Therefore,

pilot sites were asked to track referral information using a Microsoft Access database. See table 8 below for results.

Table 8. Referrals from the mental health clinic to BHOP

| <b>MTF</b>      | <b>FY15 Qtr1</b> | <b>FY15 Qtr2</b> | <b>FY15 Qtr3</b> | <b>FY15 Qtr4</b> |
|-----------------|------------------|------------------|------------------|------------------|
| <b>Lackland</b> | 23               | 41               | 40               | 57               |
| <b>Keesler</b>  | 70               | 49               | 63               | 52               |
| <b>Shaw</b>     | No data          | 6                | 18               | 45               |

### **Referrals from BHOP to Specialty Mental Health**

Patients who were seen by the IBHC in BHOP and then referred to a higher level of care either at the MTF's mental health clinic or to a specialty mental health provider in the community were captured in this metric. There is no automated system to collect this data so IBHCs were asked to log all referrals for specialty mental health services in a Microsoft Access database. See table 9 below for results.

Table 9. Referrals from BHOP to specialty mental health

| <b>MTF</b>      | <b>FY15 Qtr1</b> | <b>FY15 Qtr2</b> | <b>FY15 Qtr3</b> | <b>FY15 Qtr4</b> |
|-----------------|------------------|------------------|------------------|------------------|
| <b>Lackland</b> | 61               | 43               | 39               | 89               |
| <b>Keesler</b>  | 62               | 40               | 31               | 14               |
| <b>Shaw</b>     | 87               | 76               | 20               | 34               |

To get a true referral rate of BHOP patients who required a higher level of care, referral data from table 9 was combined with the total number of unique patients seen in BHOP during FY15. See table 10 below for details. Results indicate that Lackland AFB had a referral rate of 7% with 3,264 unique patients seen in BHOP and 232 of those patients were referred to specialty mental health services. Keesler AFB had a referral rate of 8% with 1,784 unique patients seen in BHOP and 147 of those patients were referred to specialty mental health services. Shaw AFB had a referral rate of 15% with 1,416 unique patients seen in BHOP and 217 of those patients were referred to specialty mental health services.

Table 10. BHOP to specialty mental health referral rate

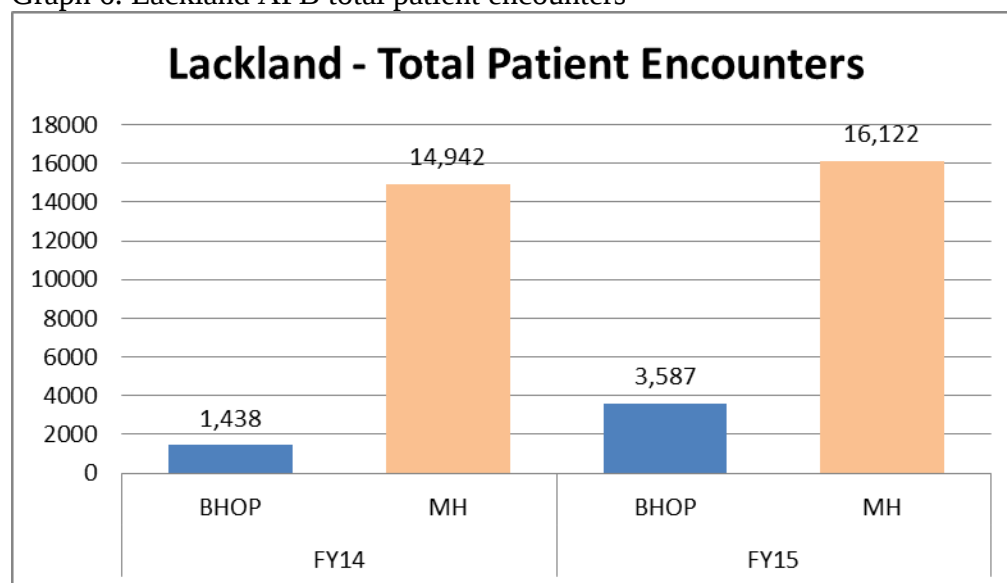
| <b>MTF</b>              | <b>FY15 BHOP<br/>Unique Patients</b> | <b>Referrals from BHOP<br/>to Specialty MH</b> | <b>Referral Rate</b> |
|-------------------------|--------------------------------------|------------------------------------------------|----------------------|
| <b>Lackland<br/>AFB</b> | 3,264                                | 232                                            | 7%                   |
| <b>Keesler<br/>AFB</b>  | 1,784                                | 147                                            | 8%                   |
| <b>Shaw AFB</b>         | 1,416                                | 217                                            | 15%                  |

### **Total Patient Encounters and Unique Patients Served**

Total unique patients served and total patient encounters were calculated for BHOP and mental health clinic therapist appointments for FY14 and FY15 to measure productivity. AFMS-wide, unique patients served at MTFs increased 4% from 83,364 in FY14 to 87,053 in FY15. Additionally, total patient encounters AFMS-wide experienced a 5% increase from 396,909 in FY14 to 417,001 in FY15. An analysis for each pilot site MTF demonstrates that all BHOP clinics experienced substantial increases in the number of patient encounters during the pilot study. Additionally, Lackland and Shaw AFB mental health clinics experienced patient encounter increases while the mental health clinic at Keesler AFB experienced a decrease in overall patient encounters during the pilot study compared to FY14. Total unique patients seen in BHOP and the mental health clinic were also measured. All MTFs experienced increases in unique patients served in both their BHOP and mental health clinics.

Lackland AFB had a 149% increase of total patient encounters in BHOP from 1,438 in FY14 to 3,587 in FY15. Their mental health clinic also experienced an 8% increase in total patient encounters from 14,942 in FY14 to 16,122 in FY15. Lackland AFB experienced a 20% increase in combined BHOP and mental health clinic appointments from 16,380 in FY14 to 19,709 in FY15. See graph 6 for details.

Graph 6. Lackland AFB total patient encounters



Lackland AFB had a 218% increase of unique patients served in BHOP from 1,028 in FY14 to 3,264 in FY15. Their mental health clinic also experienced a 94% increase of unique patients served from 3,672 in FY14 to 7,141 in FY15. Lackland AFB experienced a combined 121% increase of unique patients served in BHOP and the mental health clinic from 4,700 in FY14 to 10,405 in FY15. The average number of BHOP encounters per patient dropped from 1.4 in FY14 to 1.1 in FY15. The average number of mental health clinic therapy appointments dropped from 4.1 in FY14 to 2.3 in FY15. See table 11 below.

Table 11. Lackland AFB average number of encounters per patient

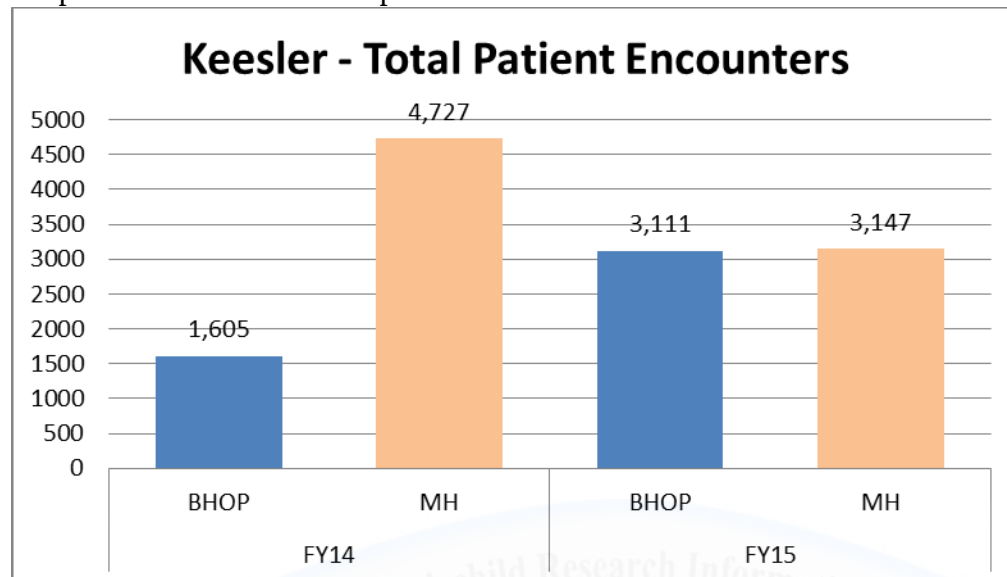
| FY and Clinic         | Patient Encounters | Unique Patients | Encounters Per Patient |
|-----------------------|--------------------|-----------------|------------------------|
| <b>FY14 BHOP</b>      | 1,438              | 1,028           | 1.4                    |
| <b>FY15 BHOP</b>      | 3,587              | 3,264           | 1.1                    |
| <b>FY14 MH Clinic</b> | 14,942             | 3,672           | 4.1                    |
| <b>FY15 MH Clinic</b> | 16,122             | 7,141           | 2.3                    |

Keesler AFB had a 94% increase of total patient encounters in BHOP from 1,605 in FY14 to 3,147 in FY15. Their mental health clinic experienced a 33% decrease in total patient encounters from 4,727 in FY14 to 3,147 in FY15. Keesler AFB experienced a 1% decrease in

combined BHOP and mental health clinic appointments from 6,332 in FY14 to 6,258 in FY15.

See graph 7 for details.

Graph 7. Keesler AFB total patient encounters



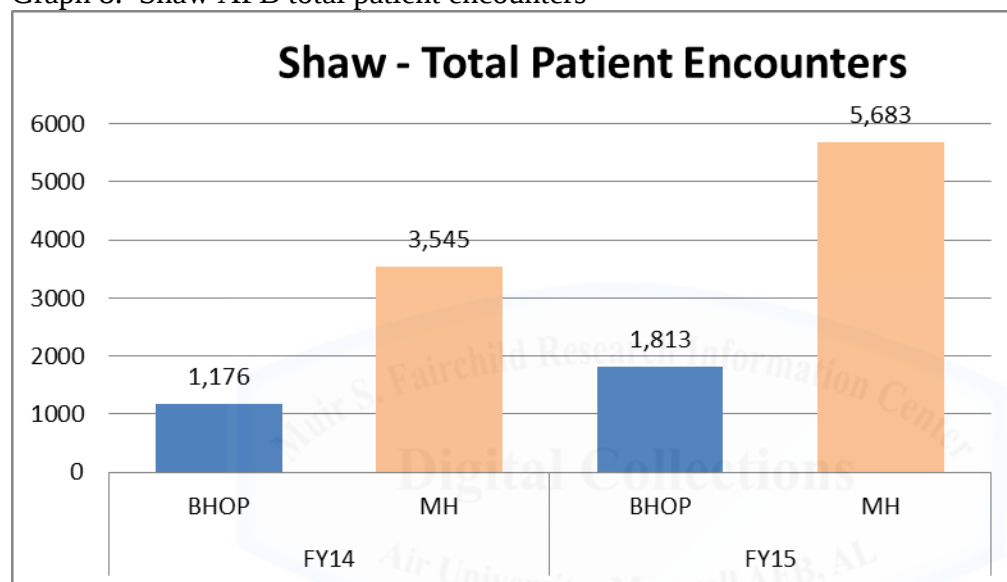
Keesler AFB had a 71% increase of unique patients served in BHOP from 1,048 in FY14 to 1,784 in FY15. Their mental health clinic also experienced a 15% increase of unique patients served from 1,457 in FY14 to 1,680 in FY15. Keesler AFB experienced a combined 63% increase of unique patients served in BHOP and the mental health clinic from 1,930 in FY14 to 3,137 in FY15. The average number of BHOP encounters per patient increased from 1.5 in FY14 to 1.8 in FY15. The average number of mental health clinic therapy appointments dropped from 3.2 in FY14 to 1.9 in FY15. See table 12 below.

Table 12. Keesler AFB average number of encounters per patient

| FY and Clinic         | Patient Encounters | Unique Patients | Encounters Per Patient |
|-----------------------|--------------------|-----------------|------------------------|
| <b>FY14 BHOP</b>      | 1,605              | 1,046           | 1.5                    |
| <b>FY15 BHOP</b>      | 3,111              | 1,784           | 1.8                    |
| <b>FY14 MH Clinic</b> | 4,727              | 1,457           | 3.2                    |
| <b>FY15 MH Clinic</b> | 3,147              | 1,680           | 1.9                    |

Shaw AFB had a 54% increase of total patient encounters in BHOP from 1,174 in FY14 to 1,813 in FY15. Their mental health clinic also experienced a 60% increase in total patient encounters from 3,545 in FY14 to 5,683 in FY15. Shaw AFB experienced a 59% increase in combined BHOP and mental health clinic appointments from 2,830 in FY14 to 3,137 in FY15. See graph 8 for details.

Graph 8. Shaw AFB total patient encounters



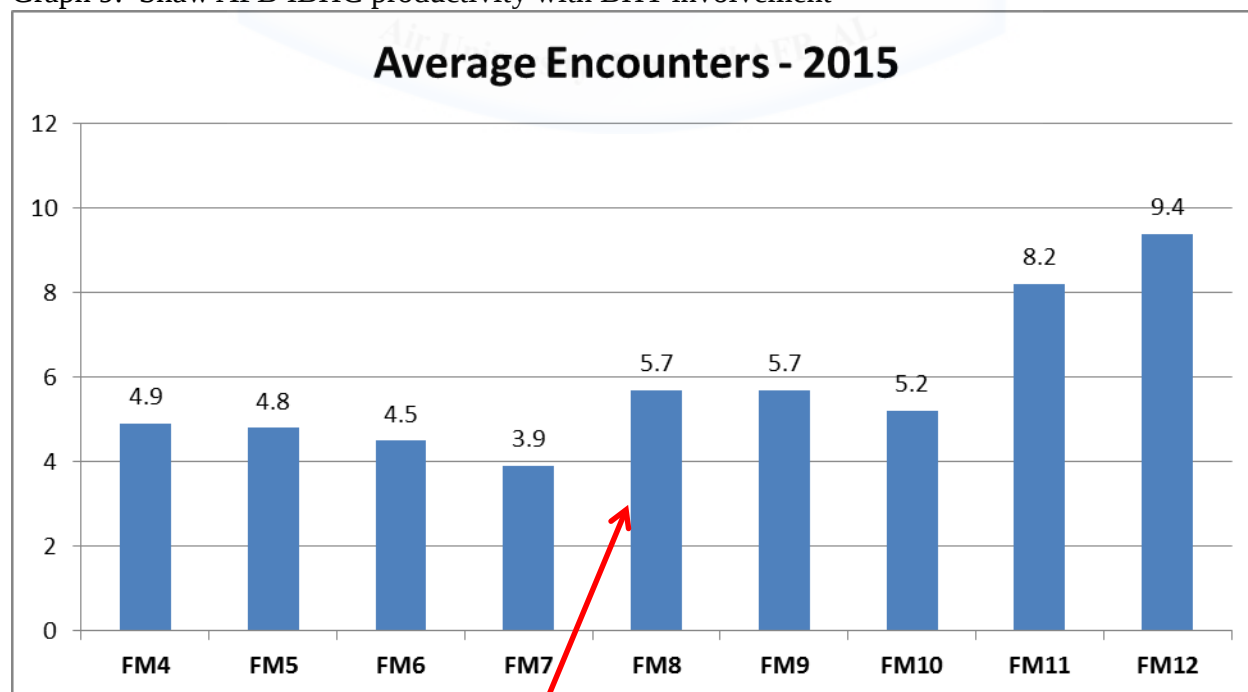
Shaw AFB had a 133% increase of unique patients served in BHOP from 609 in FY14 to 1,416 in FY15. Their mental health clinic also experienced a 303% increase of unique patients served from 1,003 in FY14 to 4,044 in FY15. Shaw AFB experienced a combined 239% increase of unique patients served in BHOP and the mental health clinic from 1,612 in FY14 to 5,460 in FY15. The average number of BHOP encounters per patient dropped from 1.9 in FY14 to 1.3 in FY15. The average number of mental health clinic therapy appointments dropped from 3.5 in FY14 to 1.4 in FY15. See table 13 below.

Table 13. Shaw AFB average number of encounters per patient

| <b>FY and Clinic</b>  | <b>Patient Encounters</b> | <b>Unique Patients</b> | <b>Encounters Per Patient</b> |
|-----------------------|---------------------------|------------------------|-------------------------------|
| <b>FY14 BHOP</b>      | 1,176                     | 609                    | 1.9                           |
| <b>FY15 BHOP</b>      | 1,813                     | 1,416                  | 1.3                           |
| <b>FY14 MH Clinic</b> | 3,545                     | 1,003                  | 3.5                           |
| <b>FY15 MH Clinic</b> | 5,683                     | 4,044                  | 1.4                           |

Shaw AFB was the only pilot site MTF to get the BHT involved in 100% of clinical patient encounters during the pilot study. Starting in May 2015 the BHT conducted the initial functional impairment assessment before having the IBHC see the patient. Graph 9 shows how BHT involvement increased the average number of patients seen by the IBHC each day during each fiscal month. From January through April 2015 the daily average for number of patient encounters was 4.5. From May through September the average daily encounters increased 51% to 6.8. The last two months of the pilot study demonstrated the highest average of daily patient encounters to 8.8 which is a 96% increase.

Graph 9. Shaw AFB IBHC productivity with BHT involvement



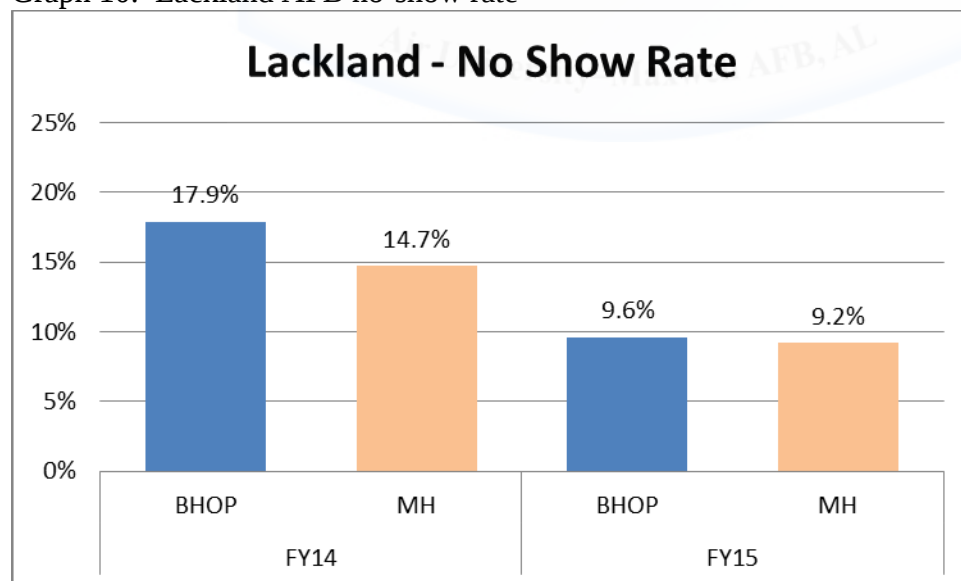
\* Incorporation of BHT into 100% of direct patient care

## No Show Rates

No show rates were calculated by patients not showing up for their initial appointment in BHOP or to see a therapist in the mental health clinic. The AFMS average for no-show rates did not change significantly from FY14 to FY15. The AFMS average no-show rate in BHOP was 8.9% in FY14 and 8.9% in FY15. The AFMS average no-show rate for the mental health clinic was 7.2% in FY14 and 7.0% in FY15. An analysis for each pilot site MTF demonstrates that Lackland and Shaw AFBs experienced a large decrease in no-show rates for both BHOP and the mental health clinic from FY14 to FY15 while Keesler AFB had mixed results.

Lackland AFB had a decrease in no-show rates in BHOP from 17.9% in FY14 to 9.6% in FY15. This is a total decrease of 8.3%. Their mental health clinic had a decrease in no-show rates from 14.7% in FY14 to 9.2% in FY15. This is a total decrease of 5.5%. See graph 10 for details.

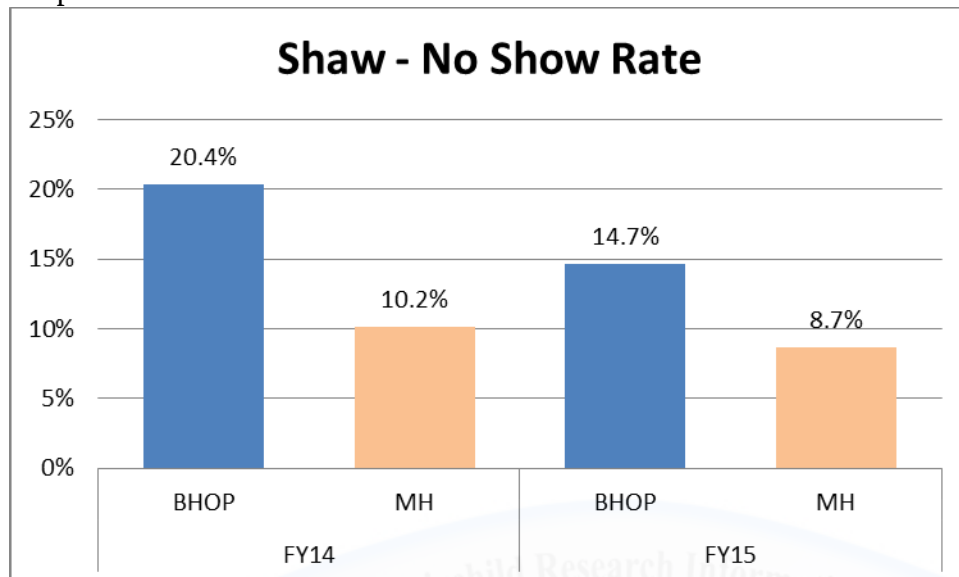
Graph 10. Lackland AFB no-show rate



Shaw AFB had a decrease in no-show rates in BHOP from 20.4% in FY14 to 14.7% in FY15. This is a total decrease of 5.7%. Their mental health clinic had a decrease in no-show

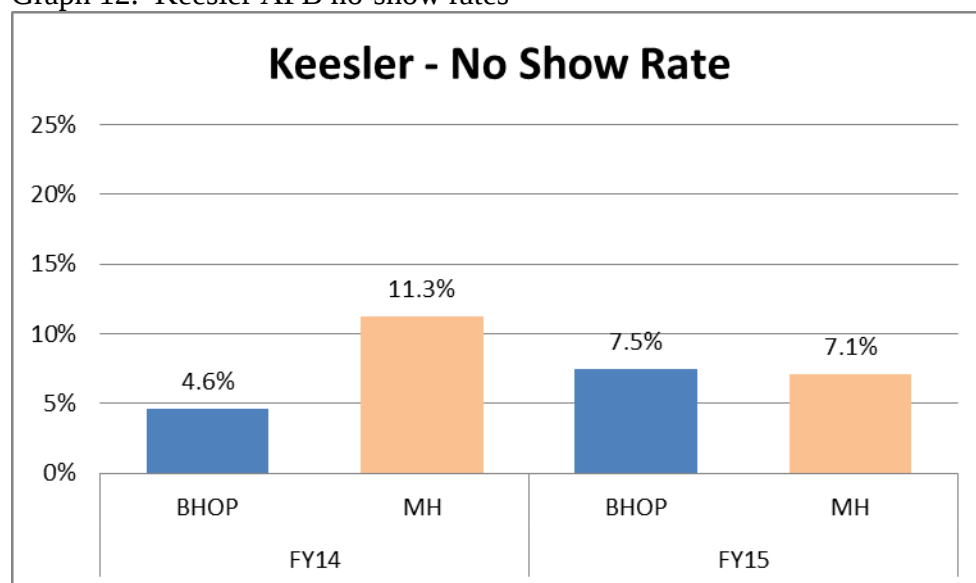
rates from 10.2% in FY14 to 8.7% in FY15. This is a total decrease of 1.5%. See graph 11 for details.

Graph 11. Shaw AFB no-show rates



Differing from the other pilot site MTFs, Keesler AFB had an increase in no-show rates in BHOP from 4.6% in FY14 to 7.5% in FY15. This is a total increase of 2.9%. However, similar to the other pilot site MTFs, the Keesler AFB mental health clinic had a decrease in no-show rates from 11.3% in FY14 to 7.1% in FY15. This is a total decrease of 4.2%. See graph 12 for details.

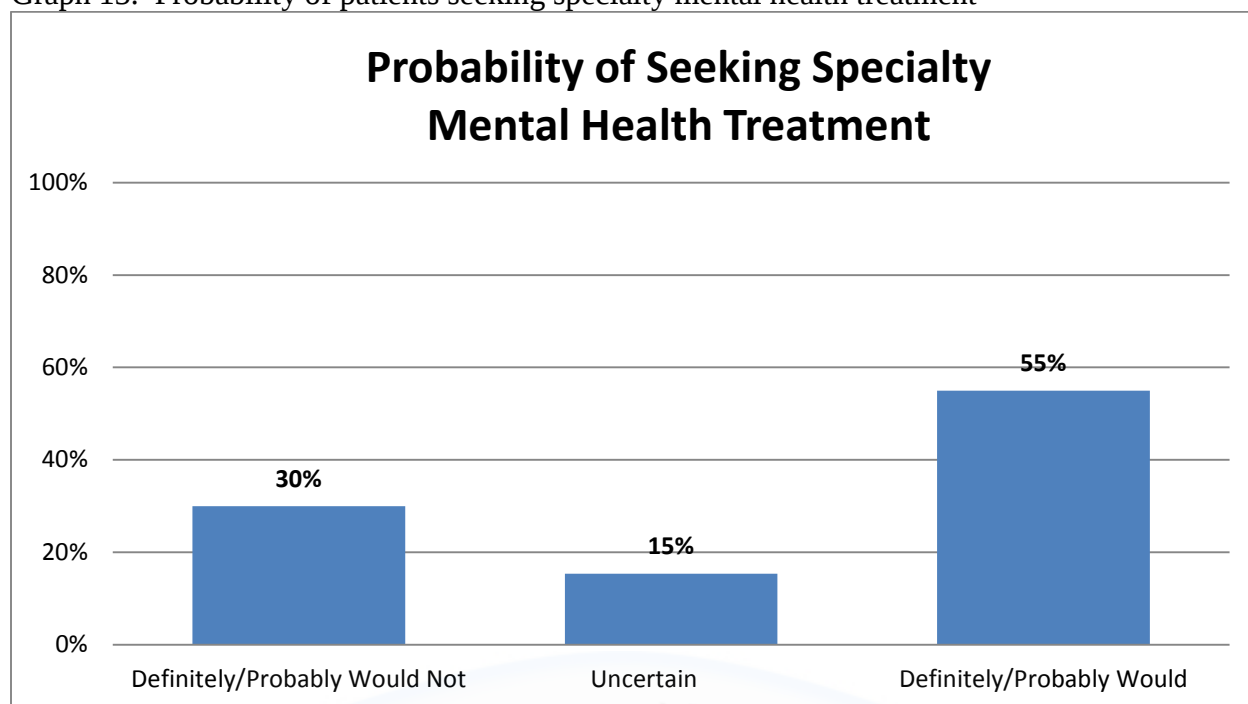
Graph 12. Keesler AFB no-show rates



### Mental Health Stigma

Question number 11 on the patient satisfaction questionnaire was added at the beginning of the third quarter of the pilot study. This question asked patients, “If IBHC services were not available to you within primary care, would you have sought services from a mental health clinic?” Between the three pilot site MTFs, 539 patients responded to this question in quarters three and four of FY15. 30% of patients (163 patients) reported that they “definitely would not,” “probably would not” or “might not” have sought mental health related care if the BHOP program did not exist in primary care. An additional 15% of patients (81 patients) reported that they were “uncertain” about their probability about seeing specialty mental health care. See graph 13 for details.

Graph 13. Probability of patients seeking specialty mental health treatment

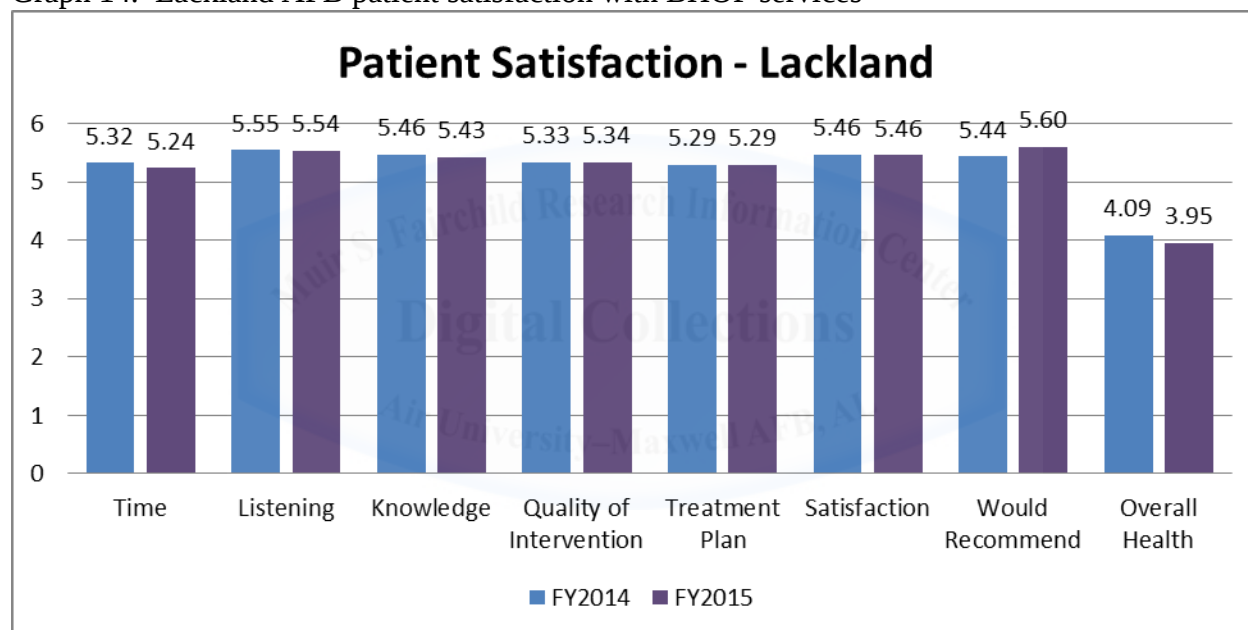


### Patient Satisfaction

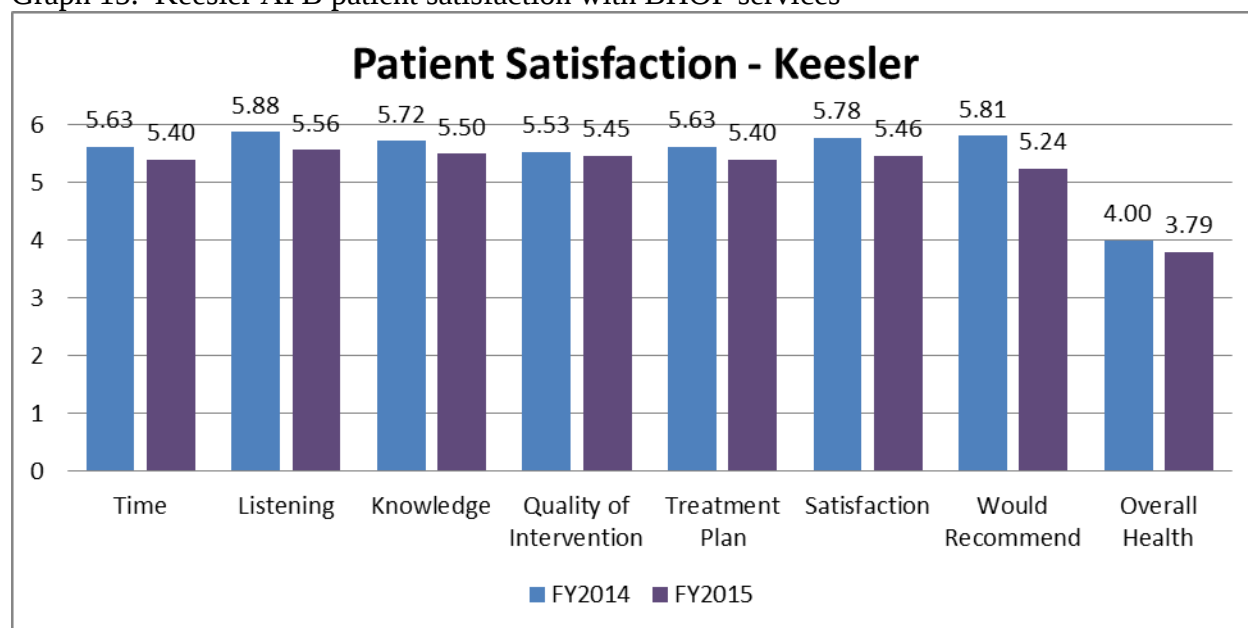
During the BHOP pilot study, 1,366 patient satisfaction questionnaires were collected from the BHOP pilot site MTFs. There were a total of 8,511 BHOP patient encounters which equates to a 16% patient satisfaction questionnaire response rate. See Appendix A to view the patient satisfaction questionnaire. This current study found that 87.9% of patients were “very satisfied” or “extremely satisfied” with their overall BHOP experience on the 0-6 point scale. This level of satisfaction is slightly less than the AF average that was obtained during the 2015 BHOP Annual Review of 89.5% with the same level of satisfaction. Additionally, this study found that 88% of patients “probably” or “definitely” would recommend IBHC services to a friend or family member. This result is also less than the 2015 USAF average of 95.3% of patients who would recommend IBHC services with the same level of conviction.

Since patient satisfaction can differ between MTFs, an analysis was done for each pilot study MTF based on their baseline data before the pilot study began and patient satisfaction during the study. An analysis of statistical significance was not able to be obtained. However the below graphs for each MTF indicate that patient satisfaction with BHOP services remained high before and during the pilot study. Additionally, the patients' perceived health, or the acuity of the patient population seen in BHOP did not differ significantly as a result of the pilot study and shifting the mental health access point to BHOP.

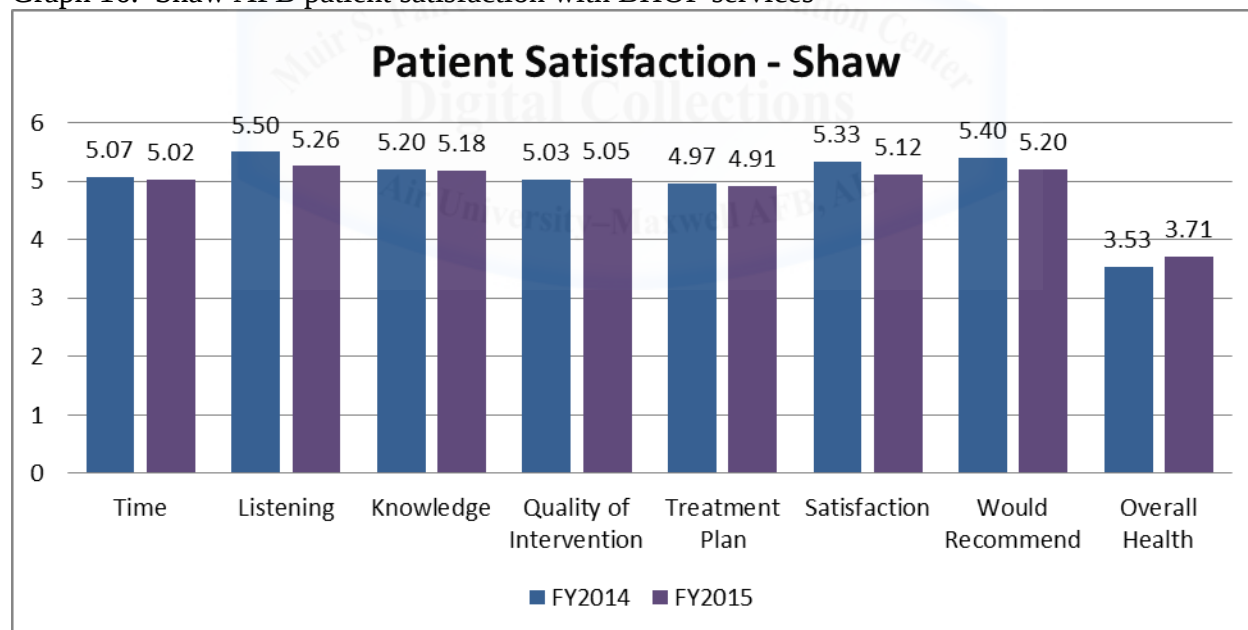
Graph 14. Lackland AFB patient satisfaction with BHOP services



Graph 15. Keesler AFB patient satisfaction with BHOP services



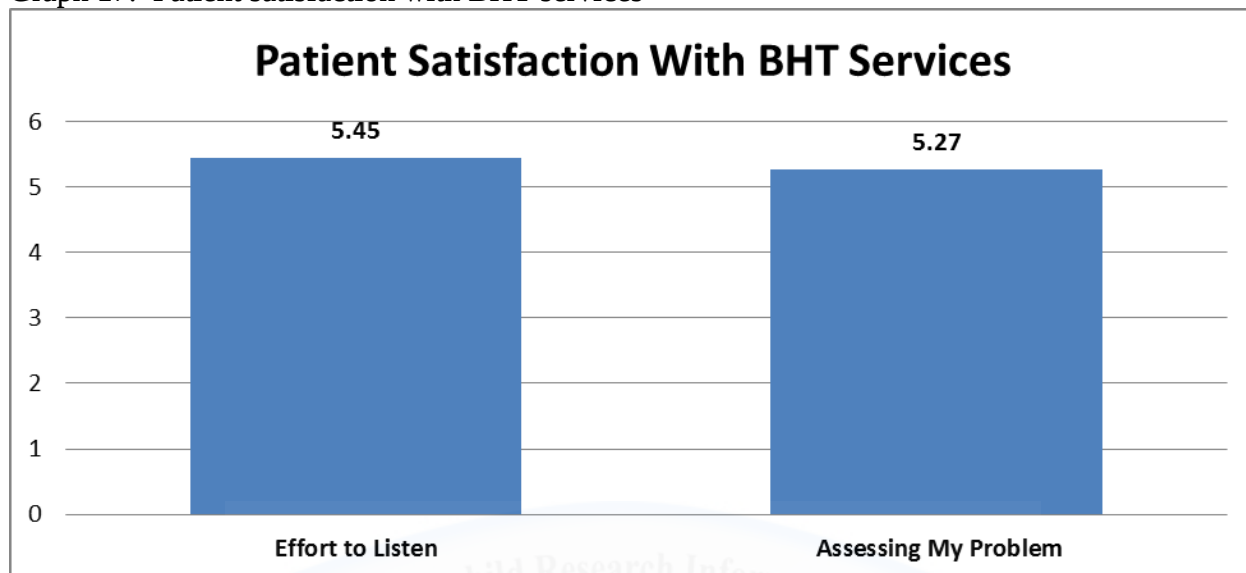
Graph 16. Shaw AFB patient satisfaction with BHOP services



Starting in the fourth quarter of FY15, questions 16 and 17 were added to the patient satisfaction survey for patients to fill out if the BHT was involved in their clinical encounter. These questions measured the patients' perception of the BHT's effort to listen to their concerns and the BHT's skill in assessing the patient's presenting problem. Results indicated that patients

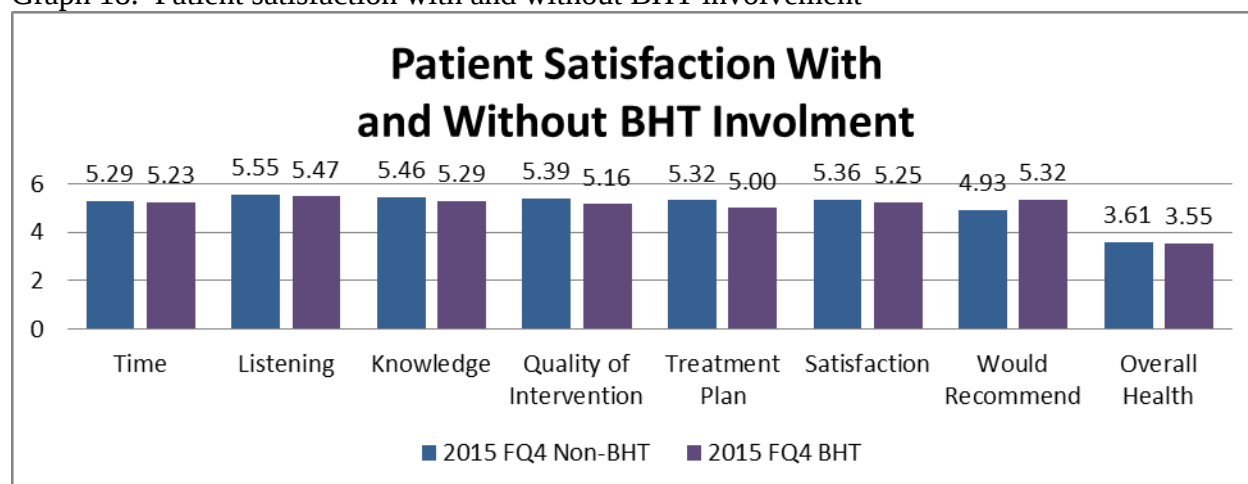
were highly satisfied with their BHT experience averaging 5.45 and 5.27 respectively out of a maximum 6 on the 0-6 Likert scale. See graph 17 for details.

Graph 17. Patient satisfaction with BHT services



A comparative analysis was conducted to determine if patient satisfaction with BHOP services differ when the BHT is involved in their clinical encounter. Out of 329 patient satisfaction surveys collected during the fourth quarter of FY15, 80 patients responded that they had involvement with the BHT during the clinical encounter. Overall, patients remained highly satisfied with their BHOP encounter for both when the BHT is involved and when they were not. See graph 18 for details.

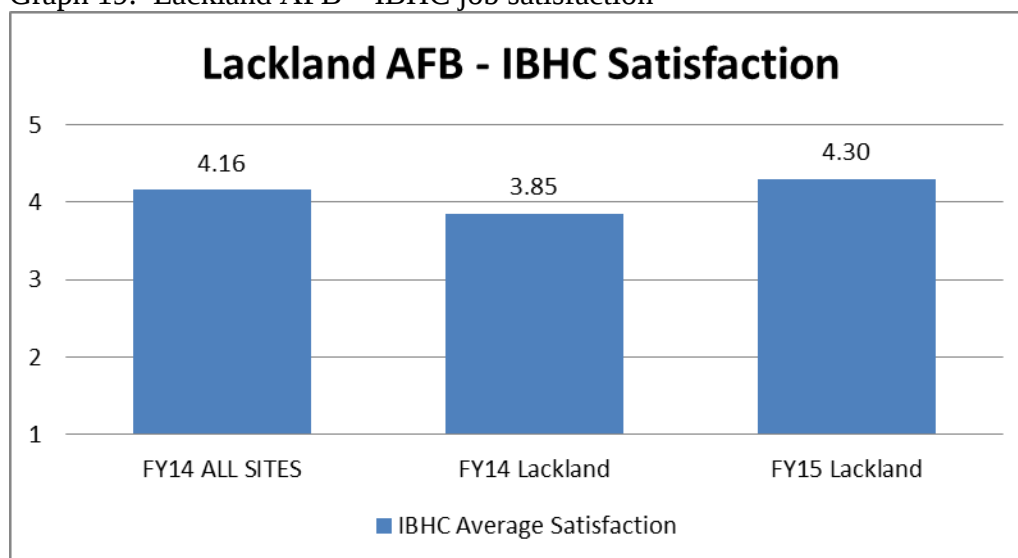
Graph 18. Patient satisfaction with and without BHT involvement



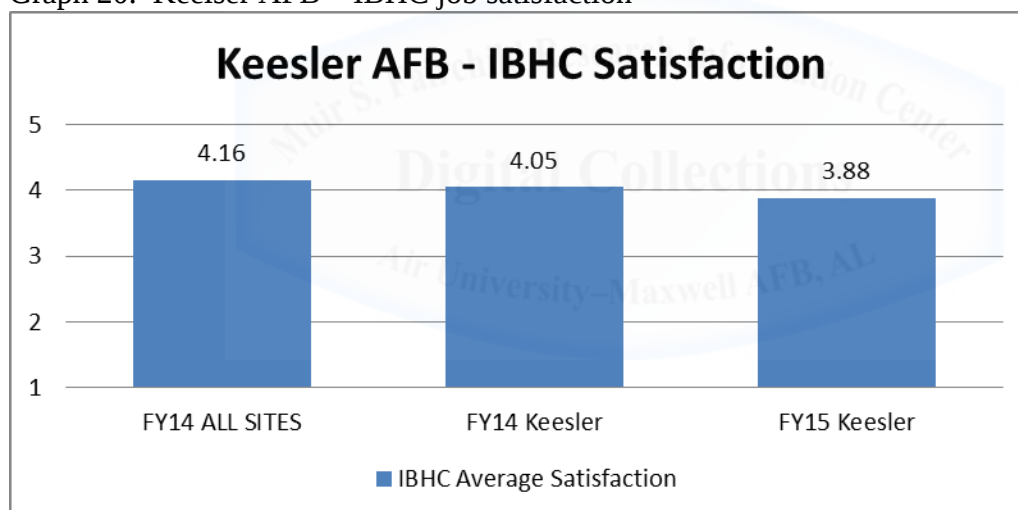
### IBHC Satisfaction

IBHC job satisfaction surveys were collected before the pilot study began as baseline data and then at each quarter during the pilot study to determine if shifting the mental health care access point to BHOP changed IBHC overall job satisfaction. An average of questions 1-19 were obtained for each MTF for the baseline data as well as an average IBHC satisfaction score during FY15. An analysis of statistical significance was not performed. However, the below graphs for each MTF (Graphs 19 - 21) indicate that IBHC job satisfaction decreased slightly at Keesler (4.05 to 3.88) and Shaw (4.50 to 4.33) AFBs and increased slightly at Lackland AFB (3.85 to 4.30). Overall, IBHC job satisfaction remained relatively high between “somewhat satisfying” and “very satisfying” on the five point scale for a variety of specific aspects of working within primary care as an IBHC. See appendix B to view the IBHC satisfaction questionnaire.

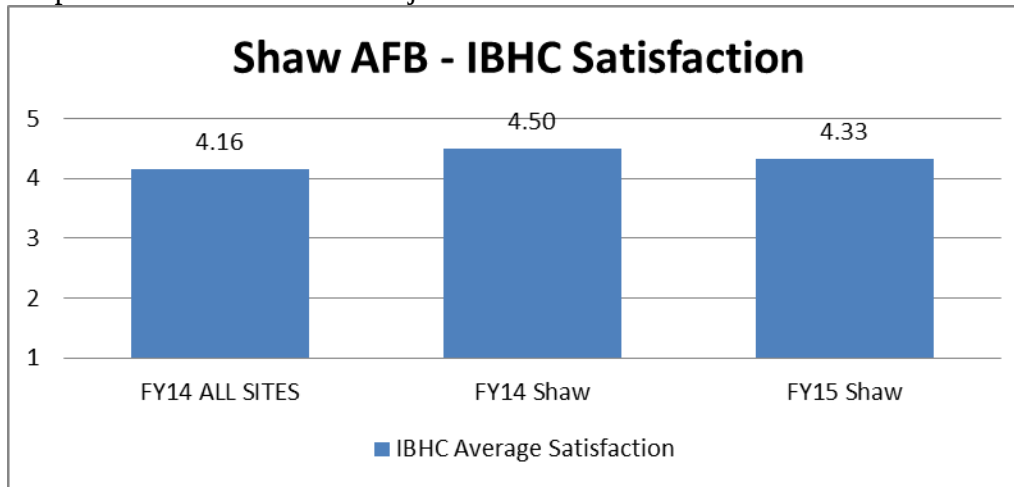
Graph 19. Lackland AFB – IBHC job satisfaction



Graph 20. Keesler AFB – IBHC job satisfaction



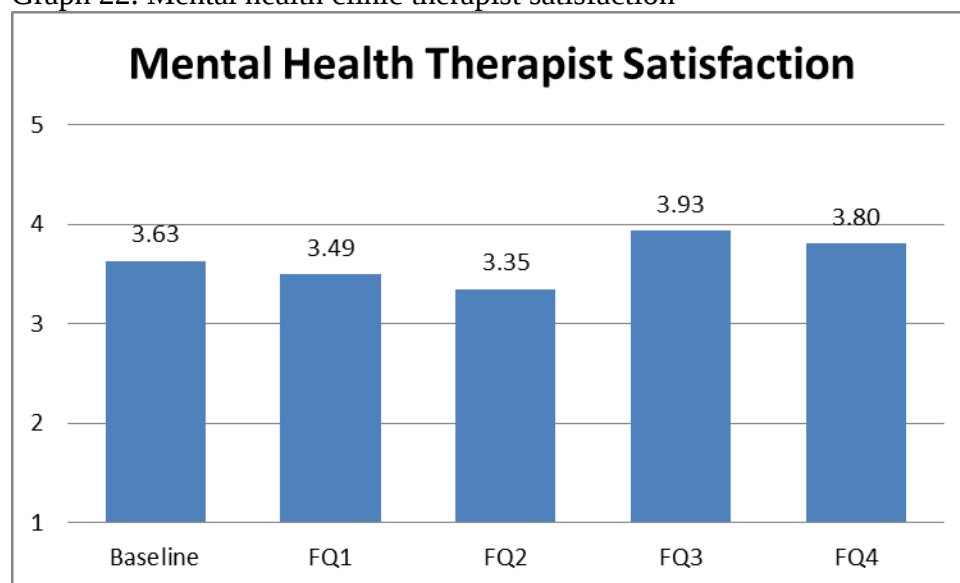
Graph 21. Shaw AFB – IBHC job satisfaction



### Mental Health Clinic Therapist Satisfaction

Mental health clinic therapist job satisfaction questionnaires were collected before the pilot study began as baseline data and then at each quarter during the pilot study to determine if shifting the mental health care access point to BHOP changed mental health clinic therapist overall job satisfaction. There were a total of 109 mental health clinic therapist questionnaires collected. See Appendix D to view the mental health clinic therapist questionnaire. An average of questions 1-19 were obtained for each MTF for the baseline data as well as an average mental health therapist satisfaction score for each quarter of FY15. An analysis of statistical significance was not performed. However, graph 22 demonstrates how mental health clinic therapist satisfaction decreased slightly from baseline (3.63) in the first two quarters of the study (first quarter 3.49 and second quarter 3.35). There was a slight increase in satisfaction from baseline (3.63) in the last two quarters of the study (third quarter 3.93 and fourth quarter 3.80). Overall, mental health clinic therapist job satisfaction remained relatively similar to baseline and ranged between “somewhat satisfying” and “very satisfying” on the five point scale for a variety of specific aspects of working as a mental health clinic therapist.

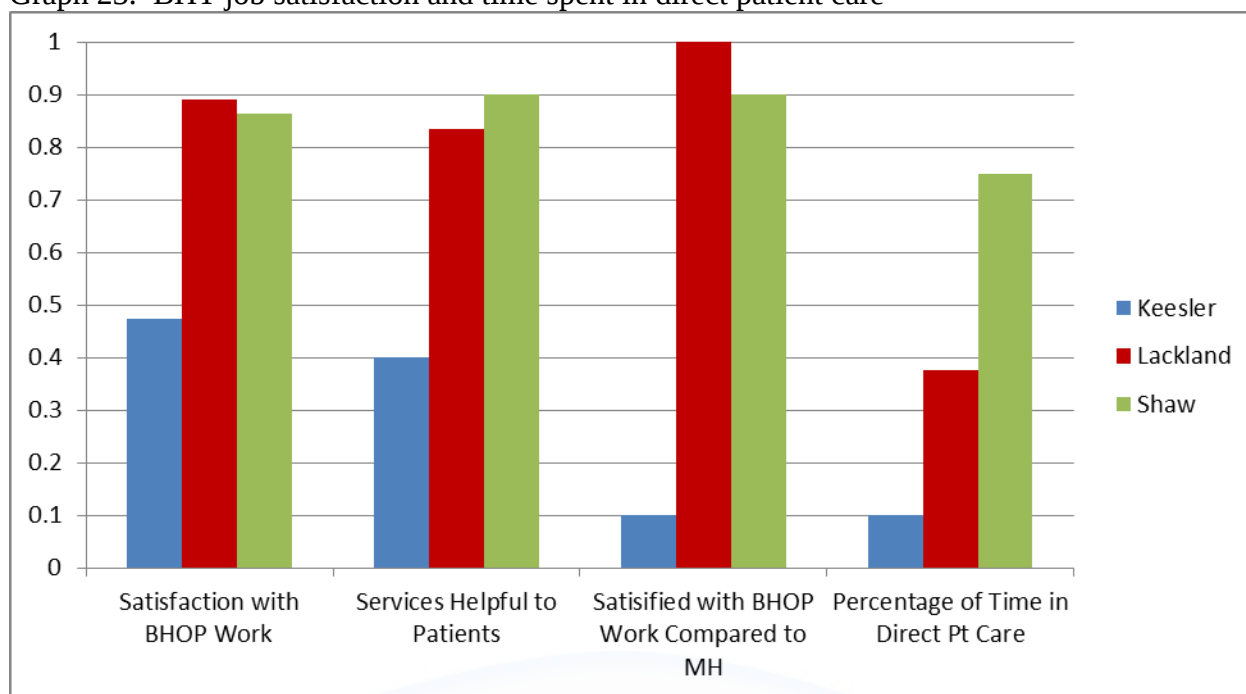
Graph 22. Mental health clinic therapist satisfaction



### Behavioral Health Technician Satisfaction

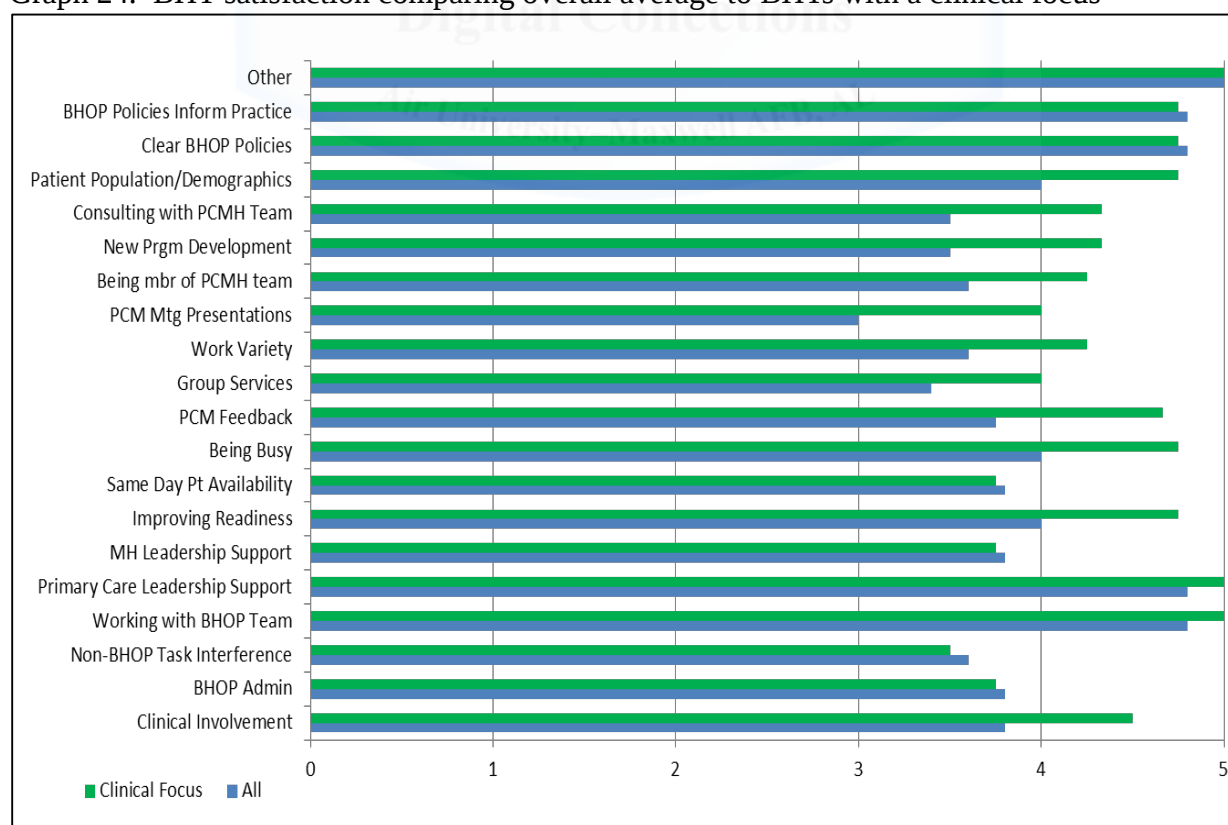
BHT satisfaction questionnaires were collected at the end of the pilot study. All BHTs who participated in the pilot study completed a questionnaire. See Appendix D to view the behavioral health technician satisfaction questionnaire. Additionally, pilot project program managers at each MTF were asked to provide a percentage of how much direct patient care their BHTs were involved with. Lackland BHTs were involved in clinical work 37.5% of the time while Keesler and Shaw BHTs were involved in clinical work 10% and 75% respectively. Graph 23 highlights how BHT job satisfaction was higher for Shaw and Lackland BHTs who were also more involved in direct patient care. Additionally, Graph 24 demonstrates how BHTs with a greater clinical role in BHOP are considerably more satisfied with a variety of BHT work and even perceive a higher deployment readiness level based on their BHT experiences.

Graph 23. BHT job satisfaction and time spent in direct patient care



\* Vertical scale = percentage out of maximum response for item

Graph 24. BHT satisfaction comparing overall average to BHTs with a clinical focus



## Conclusion

### Discussion

In a representative sample of USAF MTFs, this study found that shifting the access point for mental health care from the mental health clinic to BHOP is more effective and efficient in meeting the mental health demand of the population without increasing or funding additional mental health personnel. Pilot study results indicate that the MTFs experienced a 22% increase in total patient encounters (27,432 in FY14 to 33,463 in FY15) and a 119% increase the total number of unique patients seen (8,815 in FY14 to 19,329 in FY15). This is compared to the AFMS average increases of 4% and 5% respectively during the same time period. Additionally, access to care improved by having 15% of BHOP patients attend their initial appointment on same day as their request for services. Furthermore, only 9.2% of BHOP patients were determined to need a referral to specialty mental health services at either the MTF's mental health clinic or a TRICARE community provider. These results directly correlate with a net decrease in community purchased care costs in the pilot site MTF's TRICARE network area that ranged between 9.3% and 45.2% when compared to the AFMS average that experienced a 15.7% increase in purchase care costs from \$36 million in FY14 to \$42 million FY15. If this process improvement is implemented across the AFMS, it is estimated to reduce community purchased care cost between \$3.9 million and \$18.9 million per year.

Results from this study indicate that BHOP has the ability to treat patients who otherwise would not have sought mental health related care. It is well known that some patients have an aversion to seeking mental health care and especially attending appointments in the mental health clinic. Results from this study indicated that 30% of patients who completed the anonymous patient satisfaction questionnaire reported that they "definitely would not," "probably would not" or "might not" have sought mental health related care if the BHOP

program did not exist in primary care. An additional 15% of patients reported that they were “uncertain” about their probability about seeing specialty mental health care.

Patient and provider satisfaction was imperative to monitor as a means to analyze any changes in satisfaction due to patients being seen first in BHOP. Of note, patient, IBHC, and mental health clinic therapist satisfaction was largely unchanged from baseline in FY14 to the pilot study in FY15. Results indicated that 87.9% of patients were “very satisfied” or “extremely satisfied” with their overall BHOP experience on the 0-6 point scale and 88% of patients “definitely” or “probably” would recommend IBHC services to a friend or family member. IBHC and mental health clinic therapist job satisfaction remained relatively high between “somewhat satisfying” and “very satisfying” on the five point scale for a variety of unique aspects of working within those environments. Thus, indicating that the patient and provider experiences are not considerably impacted by this shift.

Training a mental health clinic technician to become a BHT was a new role introduced during the pilot study. Shaw AFB was the only MTF to get their BHT involved in direct clinical care for the last two quarters of the study. The other MTFs had difficulties getting their primary care clinics to provide administrative and scheduling support for BHOP in order to allow their BHTs time to provide more direct clinical care. BHT job satisfaction results correlate with these barriers as BHTs with a greater clinical role in BHOP were considerably more satisfied with a variety of BHT work and even perceived themselves with higher deployment readiness levels based on their BHT experiences. Shaw AFB demonstrated that once the BHT became involved in direct patient care, average daily patient encounters increased 51% for the first couple of months and then 96% for the last two months of the pilot study. These results indicate that BHT

involvement is not only critical for increasing patient encounters for the BHOP clinic, but also increasing deployment readiness and mental health skill development for the BHTs themselves.

An analysis of the average number of encounters per patient in BHOP and the mental health clinic produced surprising results. It was hypothesized that the average number of specialty mental health clinic therapy encounters per patient would increase as a result of this pilot study since the majority of the population's mental health care demand would be met in BHOP and the patients referred to the mental health clinic would have a higher acuity level for their condition(s). Results however, indicate that the average number of mental health clinic patient encounters per patient decreased during the pilot study when compared to the baseline in FY14. Lackland AFB experienced a drop from 4.1 mental health clinic encounters per patient in FY14 to 2.3 in FY15. Keesler AFB experienced a drop from 3.2 mental health clinic encounters in FY14 to 1.9 in FY15. Similarly, Shaw AFB experienced a drop from 3.5 mental health clinic encounters in FY14 to 1.4 in FY15. The cause for this dramatic decline in average mental health encounters per patient is something that needs to be studied further.

Each pilot study MTF had unique challenges in manning shortages and some difficulties adhering to the pilot study protocol that were worked out throughout the pilot study. These challenges are not uncommon and are representative of what occurs across the AFMS. Due to the MTFs experiencing different barriers, it was necessary to analyze the data based on each pilot site MTF.

Lackland AFB experienced a 13.4% decrease in beneficiary population from FY14 to FY15. Correspondingly, they also experienced an 11.7% decrease in combined mental health clinic therapist and IBHC FTE availability during the pilot study when compared to FY14. The BHTs assigned to BHOP were forced to manage the administrative and scheduling tasks as no

primary care administrative personnel were available to support them. Additionally, Lackland AFB had a difficult time receiving referrals from the mental health clinic to BHOP and the mental health clinic staff had to be trained on the triage and referral process throughout the year. Nevertheless, Lackland AFB experienced substantial positive results during the pilot study. When compared to baseline, they experienced a 149% increase of total patient encounters in BHOP and an 8% increase in the mental health clinic. They had a 218% increase of unique patients served in BHOP and a 94% increase in the mental health clinic. In total, Lackland AFB increased the number of unique patients served from 4,700 in FY14 to 10,405 in FY15. 20% of the BHOP patients were seen on the same day they requested an appointment. For those patients who wanted a future BHOP appointment or an IBHC was not available for a same day visit, patients were seen in an average of 5.1 days from their initial request for services. This is compared to the average wait time for an initial mental health clinic therapist appointment of 6.7 days. Of those patients seen in BHOP, only 7% were referred to specialty mental health services due to their condition being outside the scope of the BHOP model. As a result, Lackland AFB reduced community specialty mental health care net purchased care costs by 21.4% when taking into account the AFMS 15.7% average increase for FY15. An analysis of quarterly data indicates that after some of the pilot study processes were worked out, Lackland AFB experienced greater decreases in net purchased care costs from 24.5% in the third quarter to 38.7% in the fourth quarter.

Keesler AFB experienced a 3% decrease in beneficiary population from FY14 to FY15. Of significance, they also experienced a 37.5% decrease in combined mental health clinic therapist and IBHC FTE availability during the pilot study when compared to FY14. This significantly limited their ability to meet the mental health care demand. Additionally, the two

contract IBHCs at the MTF were not a good fit for the fast paced BHOP model and regularly spent more time with patients than the model recommends and thus limited their availability to see more patients. Both contract IBHCs left their positions at the end of the pilot study to go work in specialty mental health clinic environments. Despite these significant barriers, Keesler AFB experienced positive results during the pilot study. When compared to baseline, they had a 94% increase in total patient encounters in BHOP and a 33% decrease in the mental health clinic. When combined, this resulted in a 1% decrease in total patient encounters for the MTF. They had a 71% increase of unique patients served in BHOP and a 15% increase in the mental health clinic. In total, Keesler AFB increased the number of unique patients served from 1,930 in FY14 to 3,137 in FY15. 10% of the BHOP patients were seen on the same day they requested an appointment. For those patients who wanted a future BHOP appointment or an IBHC was not available for a same day visit, patients were seen in an average of 4.2 days from their initial request for services. This is compared to the average wait time for an initial mental health clinic therapist appointment of 6.5 days. Of those patients seen in BHOP, only 8% were referred to specialty mental health services due to their condition being outside the scope of the BHOP model. As a result, Keesler AFB reduced community specialty mental health care net purchased care costs by 9.3% when taking into account the AFMS 15.7% average increase for FY15.

Shaw AFB experienced a 1.7% decrease in beneficiary population from FY14 to FY15. They also experienced a 6.1% increase in combined mental health clinic therapist and IBHC FTE availability during the pilot study when compared to FY14. The pilot study program manager deployed for the first six months so the pilot study and the contract IBHC had a difficult time adhering to the fast paced BHOP model during the same timeframe. This contract IBHC was overwhelmed with the patient demand and as a result referred patients to specialty mental health

care prematurely. The contract IBHC left their position at the end of the second quarter and the position was left vacant for the duration of the pilot study. Additionally, the BHT at Shaw AFB was not able to get involved in direct patient care until the last two quarters of the pilot study due to the lack of administrative support for BHOP and getting pulled back to the mental health clinic for additional training requirements. Despite these barriers, Shaw AFB experienced substantial positive results during the pilot study. When compared to baseline, they had a 54% increase in total patient encounters in BHOP and a 60% increase in the mental health clinic. Of note, once the BHT became involved in direct patient care, the average daily patient encounters for the IBHC increased 51% for the first couple of months and then 96% for the last two months of the pilot study. Shaw AFB also experienced a 133% increase of unique patients served in BHOP and a 303% increase in the mental health clinic. In total, Shaw AFB increased the number of unique patients served from 1,612 in FY14 to 5,460 in FY15. 9% of the BHOP patients were seen on the same day they requested an appointment. For those patients who wanted a future BHOP appointment or an IBHC was not available for a same day visit, patients were seen in an average of 6.4 days from their initial request for services. This is compared to the average wait time for an initial mental health clinic therapist appointment of 5.2 days. Of those patients seen in BHOP, only 15% were referred to specialty mental health services due to their condition being outside the scope of the BHOP model. As a result, Shaw AFB reduced community specialty mental health care net purchased care costs by 26.5% when taking into account the AFMS 15.7% average increase for FY15. An analysis of quarterly data indicates that after some of the pilot study processes were worked out, Shaw AFB experienced greater decreases in net purchased care costs from 34.8% in the third quarter to 45.2% in the fourth quarter.

## **Limitations**

Despite the positive findings of this pilot study across the MTFs, several limitations exist. Most prevalent is the human variable of data input at the MTF level. Data extracted from the electronic health record is only as good as it is entered. Inconsistencies exist in how MTFs label provider identifier codes, which clinic medical expense performance reporting system (MEPRS) codes are used, appointment type codes for new and existing patients, and accurate procedural and diagnostic codes entered into the electronic health record by providers. Furthermore, the mental health clinic is often tasked to complete one time evaluations for special duty assignments, security, deployment, and overseas assignment clearances. Existing databases cannot distinguish if those appointments were completed for one time clearance evaluations or patients seeking mental health treatment. Additionally, Defense Health Program funded providers that work in family advocacy use the same MEPRS code as the mental health clinic (BGAZ) and therefore their data was not able to be extracted out. To help mitigate these electronic health record coding issues, pilot study data was compared to baseline data at the same MTF with the assumption that MTFs used similar coding procedures in FY14 and FY15 and one time evaluations and family advocacy encounters were proportional.

Additionally, data entry for patient and provider satisfaction questionnaire and referral data between BHOP and the mental health clinics were not automated. Each MTF had to enter the data into a Microsoft Access database by hand. This process is susceptible to human error and it is possible that personnel did not enter referral information into the database for each occurrence. To help mitigate this limitation, MTF pilot study program managers were trained to use the Microsoft Access database and were frequently reminded to ensure all data was accurately entered. Additionally, the database had limited controls to reduce data entry errors

(e.g., it was not possible to enter a numerical value above the 0-6 scale on the patient satisfaction questionnaire).

Furthermore, clinical outcome data was not obtained as part of this study. As referenced in this paper, the PCBH consultative model has been researched and found to be effective in treating a wide range of mental health conditions and health behaviors within primary care. However, the patients in these studies had been identified within the primary care environment. It is assumed in this current pilot study that patients who may have previously presented to a specialty mental health provider initially would make similar improvements but that cannot be stated definitively. Further analysis of clinical outcome data is needed to confirm the benefits of this change in accessing mental health related care in BHOP.

Each MTF experienced different barriers to adhering to the BHOP model of care or the pilot study protocol. Some mental health providers were not a good fit for the fast paced BHOP model of care and did not adapt well to being an IBHC. They were more comfortable with the specialty mental health care environment and allowed for these preferences to influence their BHOP work inappropriately. Additionally, pilot site MTFs struggled to get their BHTs to be clinically focused. There was little or no administrative support from the primary care clinic to assist with provider template management and scheduling BHOP patients. Additionally, not all PCM teams were empowered to introduce BHOP services to their patients and book future BHOP appointments if the IBHC could not see them right away. These barriers decreased the BHTs' availability to support direct patient care as well as decreased the efficiency of the IBHCs in providing care to more patients in accordance with the BHOP model of care.

Lastly, it is unknown what process improvement measures pilot site MTFs may have put in place in addition to the pilot study to improve better access to mental health care for their

beneficiaries. There has been a strong push the last couple of years for BHOP and mental health clinics across the AFMS to improve business operations. MTFs have targeted patient no-show rates, unbooked appointments, access to care, and community mental health referrals as metrics to improve.

### **Recommendations**

It is recommended that the USAF Surgeon General mandate that these pilot study processes be implemented across the AFMS. Results of this study highlight the effectiveness of shifting the mental health care access point from the mental health clinic to BHOP which is a more efficient model of mental health care delivery that meets, not exceeds, patient care needs. This recommendation is aligned with the AFMS trusted care principle of maximizing value for the patient by treating “the right patient, at the right place, receiving the right care, at the right time.”<sup>46</sup> The following steps are recommended for implementation:

First, by policy, patients seeking mental health related care should be seen in BHOP first. Exceptions to this policy that would require a patient to be seen in the mental health clinic rather than BHOP first would be if the patient is at risk to harm themselves or others, is a previous mental health clinic patient and prefers to be seen in the mental health clinic, the presenting problem is related to substance misuse or domestic maltreatment, or if a patient is in need of a special duty evaluation (security clearance, military training instructor evaluations, overseas clearance, command directed evaluation, etc.). If a patient shows up in person or calls the mental health clinic for an initial appointment, they should be screened and if exceptions are not met, the patient should be scheduled a same day or future BHOP appointment depending on the patient’s preference and the IBHC’s availability.

Second, strategic messaging needs to be developed to alert AFMS beneficiaries of this change in accessing mental health related services in BHOP that they may not know exist. Strategic messaging should also be developed for MTF leadership, mental health flight leadership, and Air Force medical home leadership to understand the positive effects of shifting the access point to BHOP and shifting mental health personnel to BHOP full time.

Third, BHTs are in integral part to the success in meeting the mental health care demand in BHOP. BHT work also builds mental health care skills and deployment readiness. Standardized training needs to be developed to certify BHTs for independent BHOP work with appropriate supervision requirements. Air Force medical home administrative personnel should be utilized to support BHOP as productivity is captured under the BGAZ MEPRS code. PCM teams also need to be trained and empowered to introduce BHOP services to their patients and schedule them future BHOP appointments when BHOP personnel are not available to them that same day. The central appointment line staff should be trained to book patients into BHOP appointments to reduce the burden on PCM teams and BHTs.

Lastly, support is needed for the AFMOA Mental Health Division to centralize the BHOP contract for 137 contract BHOP personnel. This will result in a single contractor/vendor having a better understanding of the unique qualities and skills needed to work and succeed in the BHOP model. Contractors can then be identified who are a better fit for these positions which will result in lower attrition rates and better patient care.

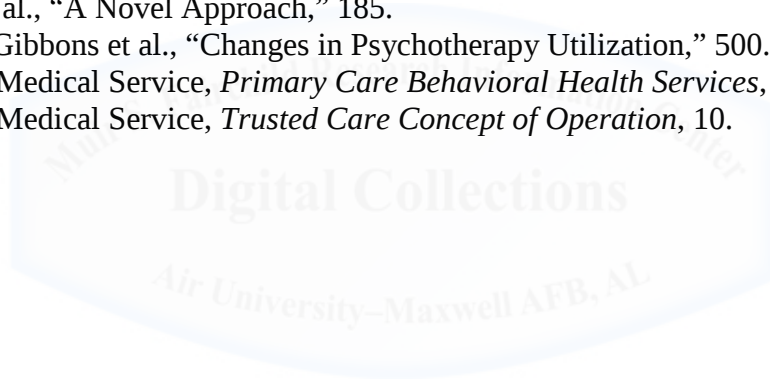
The results of this study have implications to be considered across the DoD and civilian healthcare systems. If there are any questions about this report, please contact this author at [matthew.nielsen.1@us.af.mil](mailto:matthew.nielsen.1@us.af.mil).

## Endnotes

(All notes appear in shortened form. For full details, see the appropriate entry in the bibliography.)

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**APPENDIX A**

**Anonymous Patient Questionnaire for Behavioral Health Consultant Services**

## Anonymous Patient Questionnaire for Behavioral Health Consultant Services

Please complete this survey following your visit with your Internal Behavioral Health Consultant (IBHC). Please answer honestly so we can make improvements (if needed), or continue to do the things that work well. Do not put your name or any identifying information on this form. Please give it to someone at the front desk.

### How would you evaluate your visit today with your IBHC? (Circle one choice for each item)

Use the following scale

0-----1-----2-----3-----4-----5-----6

|                           |                      |                          |                                          |                       |                   |                        |
|---------------------------|----------------------|--------------------------|------------------------------------------|-----------------------|-------------------|------------------------|
| Extremely<br>Dissatisfied | Very<br>Dissatisfied | Somewhat<br>Dissatisfied | Neither<br>Satisfied nor<br>Dissatisfied | Somewhat<br>Satisfied | Very<br>Satisfied | Extremely<br>Satisfied |
|---------------------------|----------------------|--------------------------|------------------------------------------|-----------------------|-------------------|------------------------|

1. The *amount of time* available for my appointment today?

0-----1-----2-----3-----4-----5-----6

2. My IBHC's *effort to listen* carefully to my concerns?

0-----1-----2-----3-----4-----5-----6

3. My IBHC's *knowledge about my particular problems*?

0-----1-----2-----3-----4-----5-----6

4. *Quality of care and interventions used* to help resolve my problems?

0-----1-----2-----3-----4-----5-----6

5. *Overall treatment plan* to help resolve my problems?

0-----1-----2-----3-----4-----5-----6

6. *Overall satisfaction* with my Behavioral Health appointment today?

0-----1-----2-----3-----4-----5-----6

7. How likely is it that I would recommend IBHC services to a *family member or close friend*?

Definitely would not    Probably would not    Might not    Uncertain    I Might    Probably would    Definitely would

8. In general, I would say my *overall health* during the past month is (circle one):

Extremely poor    Very poor    Somewhat Poor    Adequate, normal    Somewhat Good    Very good    Extremely good

9. My gender (circle one):    Male    Female

10. This is my (circle one):    1<sup>st</sup>    2<sup>nd</sup>    3<sup>rd</sup>    4<sup>th</sup>    5<sup>th</sup> (or more)    appointment with the IBHC.

11. If IBHC services were not available to you within primary care, would you have sought *services from a mental health clinic*?

Definitely would not    Probably would not    Might not    Uncertain    I Might    Probably would    Definitely would

12. The primary concern(s) I was seen for today was: \_\_\_\_\_

13. If referred by my PCM, the primary concern above was (circle one): the **same** or **different** than what my PCM identified during my appointment.

14. I was *referred by* (circle one):

PCM    Mental Health Clinic    DHA/PHA (Active Duty)    MiCare/RelayHealth    Self  
Other: \_\_\_\_\_

15. Approximately how many *minutes* was your appointment with the IBHC today?    15    30    45    60+

**Please comment:**

What (if anything) went particularly well today with your appointment with your IBHC?

What (if anything) could be improved about this service?

---

**If the behavioral health technician (BHT) was involved in your visit today, please answer the following questions:**

Use the following scale

0-----1-----2-----3-----4-----5-----6

Extremely    Very    Somewhat    Neither    Somewhat    Very    Extremely  
Dissatisfied    Dissatisfied    Dissatisfied    Satisfied nor    Satisfied    Satisfied    Satisfied  
Dissatisfied

16. My BHOP tech's *effort to listen* carefully to my concerns?

0-----1-----2-----3-----4-----5-----6

17. My BHOP tech's assessment of my particular problem?

0-----1-----2-----3-----4-----5-----6

18. Approximately how many *minutes* did you spend with the BHT before you saw the IBHC?    5    10    15    20    25+

What (if anything) went particularly well today with your appointment with your BHOP tech?

What (if anything) could be improved about this service?

## **APPENDIX B**

### **Internal Behavioral Health Consultant Satisfaction Questionnaire**



## Internal Behavioral Health Consultant Satisfaction Questionnaire

We are interested in learning what aspects of your IBHC work are more (or less) satisfying. Please rate how satisfying you find each of the activities listed, using a 1-5 rating. Please record the number in the “Response” column on the left. If a particular activity doesn’t occur for you, assign an “N/A.”

*Not Satisfying or Only  
a Little Satisfying*

### Somewhat Satisfying

*Very Satisfying*

| 1               | 2                                                                                                                                                                  | 3 | 4 | 5 |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| <b>Response</b> |                                                                                                                                                                    |   |   |   |
|                 | 1. Being available to patients and PCMs on a same day basis.                                                                                                       |   |   |   |
|                 | 2. Having my IBHC practice supported by Primary Care leadership                                                                                                    |   |   |   |
|                 | 3. Being busy . . . seeing lots of patients.                                                                                                                       |   |   |   |
|                 | 4. Having a lot of variety in my IBHC work.                                                                                                                        |   |   |   |
|                 | 5. Offering practical advice and change strategies to patients.                                                                                                    |   |   |   |
|                 | 6. Being able to see patients back for follow-up visits.                                                                                                           |   |   |   |
|                 | 7. Giving PCMs feedback about their patients.                                                                                                                      |   |   |   |
|                 | 8. Providing group services in the PCMH clinic.                                                                                                                    |   |   |   |
|                 | 9. Developing materials for PCMs (e.g., a patient brochure).                                                                                                       |   |   |   |
|                 | 10. Providing presentations for PCM meetings.                                                                                                                      |   |   |   |
|                 | 11. Preparing written materials that teach PCM strategies for providing behavioral health care to patients.                                                        |   |   |   |
|                 | 12. Knowing that I am a member of the PCMH team.                                                                                                                   |   |   |   |
|                 | 13. Attending PCM meetings.                                                                                                                                        |   |   |   |
|                 | 14. Working with PCMs to develop new programs, such as pathways for specific patient populations (e.g., positives on PHA or patients with diabetes or depression). |   |   |   |
|                 | 15. Consulting with nurses and PCMs                                                                                                                                |   |   |   |
|                 | 16. Level of BH condition acuity for my patients.                                                                                                                  |   |   |   |
|                 | 17. Patient population/demographics.                                                                                                                               |   |   |   |
|                 | 18. I find BHOP policies relatively easy to follow.                                                                                                                |   |   |   |
|                 | 19. BHOP policies inform my practice well.                                                                                                                         |   |   |   |
|                 | 20. Other source of satisfaction (Please explain):                                                                                                                 |   |   |   |

A. Overall, how helpful do you believe your services are for the PCMH patients you see? (Circle the number.)

| 0                   | 1 | 2 | 3 | 4 | 5 | 6                                             | 7 | 8 | 9 | 10 |
|---------------------|---|---|---|---|---|-----------------------------------------------|---|---|---|----|
| no apparent benefit |   |   |   |   |   | extremely helpful, excellent patient feedback |   |   |   |    |

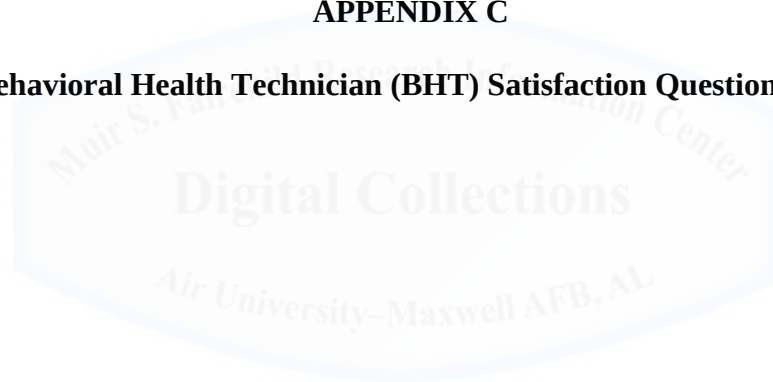
B. Overall, how helpful do you believe your services as an IBHC are to your PCM colleagues (i.e., you help them better serve their patients, etc)? (Circle the number.)

0 1 2 3 4 5 6 7 8 9 10  
not helpful extremely helpful

What change(s) could result in a higher level of overall satisfaction with your work as an IBHC? (Please include anything that dampens your sense of satisfaction, as well anything not mention above that enhances your satisfaction. You can write on the back of this page.) THANKS!

## **APPENDIX C**

### **Behavioral Health Technician (BHT) Satisfaction Questionnaire**



## Behavioral Health Technician (BHT) Satisfaction Questionnaire

We are interested in learning what aspects of your BHT work within BHOP are more (or less) satisfying. Please rate how satisfying you find each of the activities listed, using a 1-5 rating. Please record the number in the “Response” column on the left. If a particular activity doesn’t occur for you, assign an “N/A.”

**Not Satisfying or Only a Little Satisfying**

## Somewhat Satisfying

**Very Satisfying**

| 1               | 2                                                                                                                                                                               | 3 | 4 | 5 |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| <b>Response</b> |                                                                                                                                                                                 |   |   |   |
|                 | 1. Involvement in clinical aspects of BHOP patient care.                                                                                                                        |   |   |   |
|                 | 2. The frequency of BHOP related administrative tasks needing to be accomplished                                                                                                |   |   |   |
|                 | 3. The frequency of non-BHOP responsibilities interfering with my BHT practice.                                                                                                 |   |   |   |
|                 | 4. Working professional relationship with IBHC(s) and BHCF(s).                                                                                                                  |   |   |   |
|                 | 5. Having my BHT practice supported by Primary Care leadership.                                                                                                                 |   |   |   |
|                 | 6. Having my BHT practice supported by Mental Health leadership.                                                                                                                |   |   |   |
|                 | 7. My BHT practice positively improves my readiness skills.                                                                                                                     |   |   |   |
|                 | 8. Being available to patients and PCMs on a same day basis.                                                                                                                    |   |   |   |
|                 | 9. Being busy . . . seeing lots of patients.                                                                                                                                    |   |   |   |
|                 | 10. Giving PCMs feedback about their patients.                                                                                                                                  |   |   |   |
|                 | 11. Providing group services in the PCMH clinic.                                                                                                                                |   |   |   |
|                 | 12. Having a lot of variety in my BHT work.                                                                                                                                     |   |   |   |
|                 | 13. Providing presentations for PCM meetings.                                                                                                                                   |   |   |   |
|                 | 14. Knowing that I am a member of the PCMH team.                                                                                                                                |   |   |   |
|                 | 15. Working with PCMH team members to develop new programs, such as pathways for specific patient populations (e.g., positives on PHA or patients with diabetes or depression). |   |   |   |
|                 | 16. Consulting with PCMH team members.                                                                                                                                          |   |   |   |
|                 | 17. Patient population/demographics.                                                                                                                                            |   |   |   |
|                 | 18. I find BHOP policies relatively easy to follow.                                                                                                                             |   |   |   |
|                 | 19. BHOP policies inform my practice well.                                                                                                                                      |   |   |   |
|                 | 20. Other source of satisfaction (Please explain):                                                                                                                              |   |   |   |

C. Overall, how helpful do you believe your services are for the PCMH patients you see? (Circle the number.)

|                     |   |   |   |   |   |   |   |   |   |   |    |                                                  |
|---------------------|---|---|---|---|---|---|---|---|---|---|----|--------------------------------------------------|
|                     | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                                                  |
| no apparent benefit |   |   |   |   |   |   |   |   |   |   |    | extremely helpful,<br>excellent patient feedback |

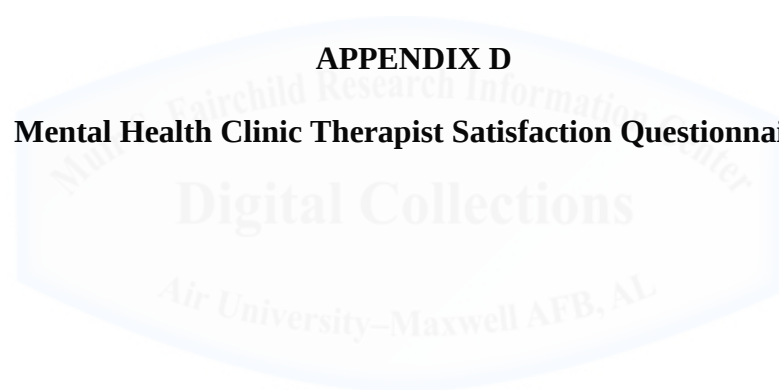
D. When compared to 4C work in the Mental Health Flight, how do you rate your overall BHT satisfaction in BHOP? **(Circle the number.)**

0 1 2 3 4 5 6 7 8 9 10  
way worse same way better  
than MH than MH

What change(s) could result in a higher level of overall satisfaction with your work as a BHT? (Please include anything that dampens your sense of satisfaction, as well anything not mention above that enhances your satisfaction. You can write on the back of this page.)THANKS!

**APPENDIX D**

**Mental Health Clinic Therapist Satisfaction Questionnaire**



## Mental Health Clinic Therapist Satisfaction Questionnaire

We are interested in learning what aspects of your work in the Mental Health Clinic (MHC) are more (or less) satisfying. Please rate how satisfying you find each of the activities listed, using a 1-5 rating. Please record the number in the “Response” column on the left. If a particular activity doesn’t occur for you, assign an “N/A”.

**Not Satisfying or Only a Little Satisfying**

## Somewhat Satisfying

**Very Satisfying**

| 1               | 2                                                                                                                    | 3 | 4 | 5 |
|-----------------|----------------------------------------------------------------------------------------------------------------------|---|---|---|
| <b>Response</b> |                                                                                                                      |   |   |   |
|                 | 1. Being available to patients on a same day basis.                                                                  |   |   |   |
|                 | 2. Having my practice supported by AF leadership                                                                     |   |   |   |
|                 | 3. Being busy . . . seeing lots of patients.                                                                         |   |   |   |
|                 | 4. Having a lot of variety in my work.                                                                               |   |   |   |
|                 | 5. Offering evidence-based interventions and change strategies to patients.                                          |   |   |   |
|                 | 6. Being able to see patients back for follow-up visits.                                                             |   |   |   |
|                 | 7. Giving both MH and non-MH colleagues feedback about their patients.                                               |   |   |   |
|                 | 8. Providing group services in the MH clinic.                                                                        |   |   |   |
|                 | 9. Developing materials for your practice (e.g., handouts, “homework”)                                               |   |   |   |
|                 | 10. Providing presentations for MH meetings.                                                                         |   |   |   |
|                 | 11. Receiving appropriate referrals from non-MHC colleagues (e.g., via BHOP/Primary Care)                            |   |   |   |
|                 | 12. Knowing that I am a member of the MH team.                                                                       |   |   |   |
|                 | 13. Attending MH meetings.                                                                                           |   |   |   |
|                 | 14. Working with MH leadership to develop new programs, such as pathways or groups for specific patient populations. |   |   |   |
|                 | 15. Consulting with fellow MH colleagues and staff members.                                                          |   |   |   |
|                 | 16. Level of MH condition acuity for your patients.                                                                  |   |   |   |
|                 | 17. Patient population/demographics.                                                                                 |   |   |   |
|                 | 18. I find MH policies relatively easy to follow.                                                                    |   |   |   |
|                 | 19. MH policies inform my practice well.                                                                             |   |   |   |
|                 | 20. Other sources of satisfaction (Please explain):                                                                  |   |   |   |

E. Overall, how helpful do you believe your services are **for the MH patients you see?** (Circle the number.)

|                     |   |   |   |   |   |   |   |   |   |   |    |                                                  |
|---------------------|---|---|---|---|---|---|---|---|---|---|----|--------------------------------------------------|
|                     | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                                                  |
| no apparent benefit |   |   |   |   |   |   |   |   |   |   |    | extremely helpful,<br>excellent patient feedback |

F. Overall, how helpful do you believe your services as a mental health provider are to your MH and non-MH colleagues (i.e., you help them better serve their patients, etc)? (Circle the number.)

0 1 2 3 4 5 6 7 8 9 10  
not helpful extremely helpful

**What change(s) could result in a higher level of overall satisfaction with your work as a mental health provider?** (Please include anything that dampens your sense of satisfaction, as well anything not mention above that enhances your satisfaction. You can write on the back of this page.) **THANKS!**