Invisible and Disproportionate Casualties

Addressing Negative Mental Health Outcomes Among Female Veterans

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TABLE OF CONTENTS

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Thank you to my wife, Lily, who made this project possible by taking up more than her share of the task at home. I love you.

I dedicate this work to the hundreds of thousands of women who have selflessly served in the United States Armed Forces to defend the Constitution. May we never rest until every wound is healed and every broken warrior is made whole. Understanding that this cannot be accomplished by human will or skillful policy, I await God's sure promise when: "He will wipe away every tear from their eyes, and death shall be no more, neither shall there be mourning, nor crying, nor pain anymore, for the former things have passed away" (Rev 21:4, ESV). Until that day comes, we are the ordinary means by which progress will occur. We have much work to do.

DISCLAIMER

The author conducted this study as part of the program of professional education at the University of Virginia's Frank Batten School of Leadership and Public Policy. This paper is submitted in partial fulfillment of the course requirements for the Master of Public Policy degree. The judgments and conclusions are solely those of the author, and are not necessarily endorsed by the Batten School, the University of Virginia, Mental Health America, or any other agency. All errors are my own.

HONOR STATEMENT

On my honor, I have neither given nor received unauthorized aid on this assignment.

Jonathan J. Dove

EXECUTIVE SUMMARY

Women in the military face negative mental health outcomes such as PTSD, depression, and suicidal ideations at more than twice the rate of their male counterparts (Adams et al., 2021). Theoretical explanations for this disproportionate outcome include a masculine military culture, rising rates of combat exposure among female service members, and the persistent threat of military sexual trauma.

Between 2006 and 2019, the Department of Veterans Affairs increased its mental health care services budget from $2.4 billion to $8.9 billion, an increase of over 270%.[1] The VA also anticipates a 32% increase in demand for mental health services over the next 10 years. Using this projected demand increase as a conservative estimate of future spending, the VA's mental health services expenditures will exceed $11.7 billion annually by 2031.

Not all veterans seek help for their mental injuries at the VA. In fact, some of the most serious symptoms, like suicidal thoughts, may never become known to medical professionals depending on the veteran's VA health care history.[2] As a result, the VA recognizes the need to build partnerships with community-based mental health organizations to serve veterans who are unreached or unwilling to receive clinical VA services.

Mental Health America of Dutchess County, New York (MHA-DC) is one such organization. Fully run by retired veteran staff, MHA-DC provides resources and services to veterans in the local community. The organization's main service is called Vet2Vet, a peer mentorship and social support group aimed at moderating the effects of mental injury. To increase the positive impact of this program, I identify four policy alternatives:

1. Maintain the Vet2Vet Program in its current form
2. Execute a mailer outreach campaign to increase program awareness and involvement
3. Increase mental health screenings for current clients
4. Provide childcare for veterans who would not otherwise participate in services

These four alternatives are evaluated based on four distinct criteria: effectiveness, cost, feasibility, and accessibility. Based on the analysis results, it is recommended that MHA-DC execute a targeted mailer outreach campaign to female veterans in the community. This alternative is expected to raise awareness of and increase involvement in the social support services MHA-DC offers.

[1] Budget data obtained from the U.S. Government Accountability Office website. Retrieved from: https://www.gao.gov/assets/gao-21-545sp.pdf

[2] Monteith et al. (2021) found that female veterans who had never sought Veterans Health Administration (VHA) services or had discontinued VHA services were significantly more likely to seek out non-VHA services when experiencing suicidal thoughts.

THE PROBLEM

Problem Statement: *Women in the military face negative mental health outcomes such as PTSD, depression, and suicidal ideations at more than twice the rate of their male counterparts* (Adams et al., 2021).

SGT Deana Martorella Orellana's story is gut-wrenching, but it sheds light on contemporary issues surrounding female veteran mental health in America.[3] Growing up, Deana was a soccer phenom whose physical prowess often outmatched everyone else on the field – including the boys. Deana's mother and sister described her as a "sheer wonder of human potential" and a "perfectionist," qualities that eventually led Deana to join the Marines. In 2010, SGT Orellana deployed to the combat-heavy Helmand Province in Afghanistan as a member of a Female Engagement Team (FET) attached to an all-male Marine infantry unit. The Marines employed FETs during counter-insurgency missions to enable interactions with Afghan women and children on the battlefield (see Figure 1). These interactions were a means to provide humanitarian assistance and gather intelligence for future operations.

Figure 1. *SGT Orellana with an Afghan Child*
Reference: The American Home Front Project.

Deana loved being a Marine, but she decided not to renew her enlistment when the time came in 2015. Instead, she began bartending and working as a physical trainer near Camp LeJeune. Deana never discussed the specifics of her combat deployment, but her sister recalled that Deana once said, "[I] could handle everything except for the kids." Presumably trying to escape internal turmoil, Deana began to drink more heavily after separating from active duty. While she had future aspirations of pursuing a degree in exercise science, things began to unravel. In short succession, Deana was charged twice with driving under the influence. On March 4, 2016, Deana sought help for the first time at a Veterans Affairs (VA) medical site for her issues. Sadly, Deana decided to take her own life a few hours after returning home from her first VA appointment. Following her death, VA officials were able to disclose to Deana's family that she suffered from combat-related post-traumatic stress disorder (PTSD). Deana never mentioned this diagnosis to her family (Price, 2018).

[3] SGT Deana Martorella Orellana's story is summarized based on a 2018 article published by Jay Price. The full citation is in the reference list at the end of the report.

Unfortunately, tens of thousands of women serving on active duty *right now* share a part of Deana's story. According to Adams et al. (2021), female veterans are more than twice as likely than male veterans to experience lifetime depression (46% vs. 21%), be diagnosed with PTSD (29% vs. 12%), and have suicidal ideations (27% vs. 11%). Figure 2 provides a graphical representation of these findings. Assuming Adams et al.'s (2021) randomized survey results are generalizable to the female population currently on active duty, the number of women impacted is staggering:[4]

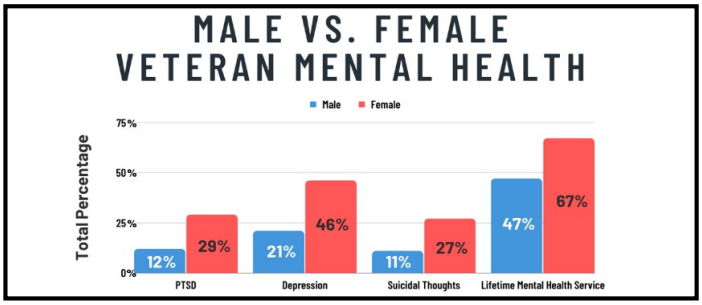

Figure 2. *Disproportionately Negative Mental Health Impacts on Female Veterans*
Reference: Adams et al. (2021), https://doi.org/10.1186/s12905-021-01181-z.

67,205 women will be treated for PTSD
106,601 women will suffer from depression
62,570 women will have suicidal thoughts

Deana's story also brings attention to several contributing factors which researchers believe raise the risk of mental injury for female veterans. First, women must navigate a hyper-masculine military culture. Deana undoubtedly experienced this dynamic during her combat deployment alongside an all-male Marine infantry unit. Women are expected to portray male stoicism, knowing they will always be an outsider regardless of how well they fit the mold. Second, ample research has been conducted to understand the prevalence and impact of military sexual trauma (MST) on female veteran mental health outcomes (Murdoch et al., 2004; Hyun et al., 2009; LeardMann et al., 2013; Bell et al., 2018). These studies point to the unfortunate reality that women face threats from within their own ranks in addition to the hazards posed by known adversaries. Finally, two broad trends are occurring simultaneously. Women's roles in the military are rapidly changing, and the total share of women on active duty is steadily increasing. Taken together, these trends highlight the need to address the problem outlined in this report. If nothing is done to address the root causes, current trends indicate that this problem will worsen.

[4] According to the Department of Defense's 2021 Demographics Report (most recently published version at the writing of this report), women made up 17.3% of the active force (231,741 women in total). The numbers prominently displayed in this report correspond with the lifetime incidence percentage for the three negative mental health outcomes measured in the Adams et al. (2021) study. The calculations are as follows: ***PTSD:*** 231,741 x .29 = 67,204.89; ***Depression:*** 231,741 x .46 = 106,600.86; ***Suicidal Thoughts:*** 231,741 x .27 = 62,570.07. Retrieved from: https://www.defense.gov/News/Releases/Release/Article/3246268/department-of-defense-releases-annual-demographics-report-upward-trend-in-numbe/

CLIENT OVERVIEW

Mental Health America is a community based non-profit organization whose mission is to "promote mental health as a critical part of overall wellness, including prevention services for all[.]"[5] Mental Health America of Dutchess County (MHA-DC) is one of more than 200 Mental Health America affiliates across the United States who carry out this mission within a local community. MHA-DC serves veterans in the broader Poughkeepsie, NY area. Directed by Anthony Kavouras, the MHA-DC Veteran's Programs division believes that a multi-pronged approach is the key to positive mental health outcomes for veterans. The division provides local veterans with three major services:[6]

1. *Housing Assistance* – The Housing, Employment, Reintegration, and Outreach (HERO) Program is designed to house currently homeless veterans and prevent at-risk veterans from becoming homeless.

2. *Employment & Transitions Assistance* – The Veterans Employment Training and Transitions Assistance Program (VET-TAP) helps veterans increase their employment marketability by offering funding for licenses and certifications. Additionally, VET-TAP assists veterans in building robust resumés, filling out employment applications, and making job interview preparations.

3. Peer and Social Support Services – MHA-DC provides peer mentorship and social support services through a program known as Vet2Vet. The Vet2Vet Program accounts for about 80% of MHA-DC's service referrals (Appendix 5: MHA-DC Q3, 2022 Summary). The program provides veterans in Dutchess County, NY with an opportunity to share their experiences and struggles with other veterans in a supportive environment.

Benefits of Community-Based Social Support

The theory behind social support services rests on research indicating that stronger social bonds lead to better mental health outcomes. According to Proescher (2022), service members who simply perceive to have greater social supports report fewer PTSD, depression, and anxiety symptoms. Post-deployment social support can moderate the effects of PTSD on general health outcomes for veterans (Luciano & McDevitt-Murphy, 2017). In general, social support most often exists within intimate partner relationships or between unrelated persons sharing common experiences. Goldstein et al. (2018) argues that veterans are well-suited for social support services since they share a common identity and are committed to the well-being of the collective whole.

[5] Quote taken from Mental Health America's website under, "Our Mission." Retrieved from: https://www.mhanational.org/about-us
[6] The summary of MHA-DC's Veteran's Program services was taken from their website. Retrieved from: https://mhadutchess.org/services/vet2vet/

Social support services can be particularly beneficial to female veterans. Monteith et al. (2021) found that female veterans who had never sought Veterans Health Administration (VHA) services or had discontinued VHA services were significantly more likely to seek out non-VHA services when experiencing suicidal thoughts. Additionally, female veterans who have suffered military sexual trauma (MST) are more likely to avoid VHA care and seek out non-VHA services instead. While there are many veteran women who use VHA services recurringly, this research illuminates the reality that VHA services do not reach everyone who desperately needs them. In fact, non-VHA services like peer support have made some veterans more likely to seek professional help in the future (Hom et al., 2017). For these reasons, the VA recognizes the need to partner with community-based organizations like MHA-DC to promote peer support programs (Drebing et al., 2018).

BACKGROUND OF THE PROBLEM

Military life presents a multitude of unique challenges for its members. Ridenour (1984) draws attention to several enduring difficulties which military members and their families face. He makes the point that military life may be the only context where all the following psychological risk factors can realistically be at play simultaneously:

- *frequent separations & reunions*
- *frequent household relocations*
- *living a "mission first" lifestyle*
- *embracing rigidity and conformity*
- *prospect of early retirement*
- *separation from mainstream life*
- *work involving travel, danger, & quest*
- *social effects of rank*
- *limited control over benefits, pay, or promotion*

The military is a "greedy" institution because it pays salaries at a fixed amount, yet it can demand everything from its employees – even the ultimate sacrifice. The military is also a "total" institution that provides barracks, communities, academies, uniforms, and doctrine to govern virtually all aspects of its members' lives (Soeters et al., 2006). Without considering the potentially negative effects of combat, the "normal" life of a soldier clearly poses an increased number of psychological health risks.

These risks increase even more for female service members. Demers (2013) describes how female veterans can feel stuck between two identities during points of transition like returning from deployment or reintegrating back into civilian life. Demers also believes that psychological damage can start much earlier than the transition out of the military. Her qualitative interviews provide insight into these real-life perceptions. Women allow themselves to be shaped by a masculine culture, but their experiences inform them that their efforts will never be sufficient.

Archer (2013) conducted 35 in-depth interviews with United States Marines (17 females and 18 males). The study found broad support for negative and persistent gender stereotypes toward female Marines. Femininity was widely seen in conflict with warrior definitions, women experienced more gender insecurity during boot camp, women were perceived as less capable, and camaraderie and mentorship opportunities were limited. Consequently, many women embark upon a never-ending mission to find belonging, acceptance, and validation within the military. The pressure to conform to often-conflicting military and societal expectations is the dizzying stage upon which this journey is set.

Military Culture

Dunivin (1994) offers the "combat, masculine-warrior paradigm" to describe the essence of military culture. She explains that the military constructs its ideal service member and promotes a worldview or paradigm around that conception. According to Dunivin, the U.S. military offers up the "combat, masculine-warrior" repeatedly throughout its history as the ideal service member. This paradigm, if not explicitly referenced in name, is widely supported within the literature as accurately reflecting the

essence of military culture, promoting characteristics like honor, sacrifice, aggression, and stoicism (Ridenour, 1984; Wertsch, 1991; Soeters et al., 2006; Hall, 2011; Westphal & Convoy, 2016).

Militaries around the world seek to indoctrinate their members, teaching them to embrace institutional core values and culture through a socialization process (Koeszegi et al., 2014; Archer, 2013). Beginning with the basic training pipeline, the U.S. military attempts to break down individuals and rebuild them as adherents to a collective warrior code. This orients military members away from individual conceptions and points them toward an embrace of collective ideals larger than themselves (Redmond et al., 2015). The image of an enlistee's first haircut strikes a familiar chord within American culture of what it means to be stripped of a civilian identity and be rebuilt as a soldier (Demers, 2013).

Not surprisingly, femininity is a standard issue item missing in most military cultures worldwide. Militaries build their existence upon the unique purpose of engaging in combat (Dunivin, 1994). Kümmel (2002) highlights how "traditionalists" believe that men are the properly equipped gender to kill, be killed, and engage in warfare. He also draws attention to the fact that female stereotypes contradict the combat, masculine-warrior paradigm as women are traditionally seen in cultures as peacekeepers who bear and raise children in the home. Demers (2013) articulates a type of gender role whiplash which women experience throughout their service in the military. A woman must leave her femininity "at the door" to join the military and fit the warrior ideal. During their service, however, women are commonly excluded or derided by male service members who see uniformed females as failing to sufficiently meet military culture expectations. A woman must eventually exit the military and once again shed aspects of her adopted masculine warrior traits to coalesce back into traditional civilian femininity. These sporadic external pressures to conform may provide insight and explanation into why female veterans face battles with mental illness at higher rates.

Titunik (2008) presents a counter argument to the prevailing assumption that macho culture pervades the military. She claims that holding to this view too narrowly defines the entire military culture. Traditionally "feminine" characteristics such as obedience, teamwork, and submission are quite prevalent and highly honored characteristics within the military. Titunik points to recent U.S. conflicts in Iraq and Afghanistan to demonstrate how women are increasingly *more* accepted within the military. Women found themselves engaged in direct combat at unprecedented levels during the first decade of the post-9/11 conflicts. According to the Pew Research Center (2011), only 7% of women in the military had combat exposure prior to 1990.[7] After 1990, the share of women involved in combat more than tripled to 24%. In these recent conflicts, women often served in Military Police (MP) units tasked with route security, prisoner escort, and general urban warfare missions where the frontlines were unclear. Titunik (2008) shows that both military and civilian populations increased their support for female military involvement during these conflicts as women proved themselves on the battlefield. Like SGT Deana Orellana's role on a FET, women fulfilled various combat zone roles that men *could not* since sharia law prohibits mixed-gendered public interactions (Archer, 2013).

[7] The full citation for this study can be found in the reference list at the end of the report under the authors' names: Patten, E., & Parker, K. (2011).

Trends in Female Military Service

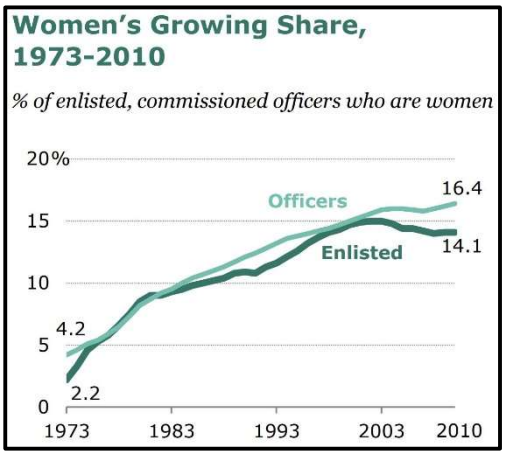

Figure 3. *Share of Women in the Military (1973-2010)*
Reference: The Pew Research Center.

Another plausible explanation for the difference in mental health outcomes between military men and women might also be related to women's changing role within the military. Titunik (2000) provides a succinct history of female integration in the military. The 1948 Integration Act was the first piece of national legislation to formally extend military service rights to women. Though progressive for the era, the legislation included several limitations which restricted females from serving in all direct combat and many combat-related roles. Titunik references the many changes which took place in the 1970s, further expanding women's rights in the military. These changes included abolishing mandatory discharge for motherhood and the emergence of the all-volunteer force (AVF) in 1973. Titunik asserts that America's AVF policy was the catalyst for increased female enrollment rates and expanded military service rights as fewer qualified men volunteered to serve. It was not until 2016 that women had unrestricted access to fill all military occupational specialties (Duncanson & Woodward, 2016). As depicted in Figure 3, women made up only 2% of the active military force in 1973 (Titunik, 2008). Today, women account for more than 17% of active members across all branches of service (Department of Defense, 2021).

Military Sexual Trauma

Sexual assault and sexual harassment against women are enduring issues within the American military. In a 1995 analysis comparing reports of attempted and completed sexual assaults against women in various government occupations, female military members were twenty times more likely to report these offenses compared to women in any other government occupation (Murdoch, 1995). A 2010 military research study found that female service members were about four times more likely to receive unwanted sexual contact compared to male service members (Rock, Cook, & Hale 2011). These disparities are only exacerbated when deployments are considered. It is important, however, to distinguish between combat and non-combat deployments and the associated differences in military sexual trauma (MST) experiences. Non-combat deployments are associated with greater MST risk relative to garrison duty. More disturbingly, women who experience combat deployments are over twice as likely to suffer MST compared to females deployed in non-combat contexts (LeardMann et al., 2013). These findings reveal a type of "stair-stepper risk effect" in the likelihood of experiencing MST depending on deployment history and the type of deployments a female service member has experienced.

The negative effects of MST are observed in the lower rates of female service member job satisfaction and retention rates relative to male service members (Antecol & Cobb-Clark, 2006). Most serious, however, is the connection between sexual trauma and elevated rates of suicide among both civilian and military populations (Bell et al., 2018). Over 70% of female veterans seeking disability for post-traumatic stress disorder (PTSD) experienced sexual assault or harassment during their military service, while only 4% of male veterans seeking PTSD disability compensation experienced MST

(Hyun et al., 2009; Murdoch et al., 2004). These research findings provide insight into the potential causes of the disproportionately negative mental health outcomes for female service members. It will be important for future research to further disentangle the causality chain between culture effects, deployment history, and MST categories.

POLICY ALTERNATIVES

Status Quo

The first alternative considered is maintaining the status quo. MHA-DC's Vet2Vet Program provides emotional support, positive relationships, and advocacy for veterans in Dutchess County, NY. The program refers veteran clients to other services such as employment or housing assistance based on demonstrated need. The peer support groups meet twice a month, and the program is supplemented by social events which take place throughout the year. Most recently, MHA-DC started a Female Veteran Support Group to address gender-specific challenges to mental well-being. This is an excellent service for veterans in Dutchess County, and MHA-DC should continue offering this service. MHA-DC has a reputable veteran peer support program that serves as a model for the rest of New York State.

Mailer Outreach Campaign

MHA-DC could initiate an outreach campaign through informational mailers to reach more potential clients and peer support volunteers in the area. This alternative is intended to increase awareness of MHA-DC's services within the veteran community in Dutchess County. Resting on the body of research pointing to the positive effects of peer support services on mental well-being, an effective mailer campaign is one that brings in clients that would not have otherwise received regular peer support services at MHA-DC. An efficient mailer campaign will target female veterans in Dutchess County to address the specific problem in this report. The mailers will be sent out once per quarter, describing MHA-DC's peer mentorship program. The mailers will contain specific information regarding MHA-DC's new meeting location and their regularly scheduled social support time offerings. Additionally, a QR code will be included on each mailer for recipients to easily engage with the organization the moment the mailer is received. The link in the QR code will enable recipients to reach out to MHA-DC's peer support services specialist to receive more information or to schedule their first meeting. Mailers may also provide a dual benefit for MHA-DC by bringing awareness to their need for more peer support counselors. The client has mentioned their desire to increase the number of young (under 45) female peer support volunteers in their Vet2Vet program. This could be a secondary benefit of the mailer campaign that is tied to the primary desired outcome of reducing the rate of negative mental health outcomes for female veterans in the community.

Increase Mental Health Screenings

MHA-DC already conducts initial screenings for every new client as well as additional screenings annually for returning clients. This is a great practice, but research indicates that more regular screenings can assist practitioners in identifying risk factors that could lead to reduced negative effects (Warner et al., 2011). Mental health screenings could be administered at the beginning of each peer support session using either analog or digital methods. In addition to asking veterans

questions that are tied to indicators of mental health, MHA-DC could also ask veterans questions which provide insight into their dietary, financial, employment, housing, or transportation needs. This information could be used to refer veterans to other programs which MHA-DC offers.

Provide Childcare During Services

Women can be restricted in their ability to access mental health services due to their familial responsibilities. Therefore, MHA-DC should consider offering childcare to attract and retain more female veterans within the peer support program. MHA-DC would partner with a local daycare agency to provide childcare once every quarter during extended peer support meeting times. Like previously proposed alternatives, the ultimate purpose of this alternative is to expose more female veterans to focused and regular peer support services.

EVALUATIVE CRITERIA

Effectiveness

The effectiveness criterion is outcome-focused and evaluates each alternative's potential for reducing the rate of negative mental health outcomes among female veterans. Negative mental health outcomes include diagnosed mental illnesses such as depression, PTSD, and suicidal ideations. These primary negative outcomes often result in secondary adverse outcomes such as homelessness, unemployment, and substance abuse. While these secondary outcomes are discussed in the report to highlight the far-reaching impacts of the problem, it is important to maintain the distinction that effectiveness is measured in terms of each alternative's likelihood of reducing primary negative mental health outcomes. Measuring primary negative mental health outcomes among MHA-DC's female veteran clientele is hindered by data and privacy limitations. Therefore, this analysis relies on credible research and evidence-based policies which have achieved this desired effect. The status quo serves as the benchmark for a "moderately effective" alternative with an effectiveness score of 1.5. Alternatives outside of the status quo are given an effectiveness score range based on the anticipated reduction in negative mental health outcomes. For example, an alternative with an effectiveness score range of 1.6 to 2 is expected to decrease negative mental health outcomes by 10% or less compared to the status quo.[8] The alternative with the greatest propensity to reduce negative mental health outcomes among female veterans will be the ideal alternative to implement. The effectiveness criterion holds 30% of the overall weight in determining the recommended alternative.

Cost

The cost criterion simply measures the direct cost of each alternative to MHA-DC in total dollars spent. The total cost for each alternative is computed over a one-year period and is adjusted for future inflation at a 3% annual rate. Unless otherwise specified, it is assumed that all costs recur each year. The status quo receives the highest cost score of 3. Each percentage increase in MHA-DC's annual operating costs reduces the cost score by one tenth of a point (.1). For example, an alternative costing an additional $10,000 annually would increase operating costs by 5%. This would result in a cost rating score of 2.5. The alternative which imposes the lowest direct cost to MHA-DC is most ideal. This criterion is also weighted at 30%, tied with effectiveness for the most heavily weighted criteria for alternative selection.

[8] See Appendix 1: Criteria Score Rationale for specific details on how scores were calculated across all four criteria.

Feasibility

The feasibility criterion evaluates the administrative ease with which MHA-DC can implement each alternative. Aspects which hinder feasibility may include MHA-DC's staff and resource limitations, the time it takes for each alternative to be fully implemented, and the degree of complexity associated with each policy implementation such as coordination with external entities and community buy-in. While administrative feasibility carries the bulk of the weight within this evaluative criterion, political feasibility is also considered when it has the potential to impact the implementation of an alternative. Each alternative is rated as having "High," "Medium," or "Low" feasibility based on the degree to which the hindrances are expected to affect policy implementation. The status quo does not require any additional administrative work and, therefore, receives a feasibility score of 3. Feasibility scores are reduced by a quarter point (.25) for every two additional staff hours per week that are required to implement the alternative. For example, an alternative which requires MHA-DC to commit eight additional staff hours per week results in a feasibility score of 2. The feasibility criterion is 20% of the weighted total for recommendation purposes.

Accessibility

The accessibility criterion evaluates the degree to which each alternative can be utilized by all female veterans in Dutchess County regardless of race, socio-economic status, or military discharge status. Each alternative is assessed to have either "High," "Medium," or "Low" accessibility. As an example, an alternative is considered highly accessible if it serves low-income, minority women with dishonorable military discharges the same as middle-class, white women who were honorably discharged. An alternative that has the effect of intentionally or unintentionally limiting access to care for vulnerable populations is considered to have low accessibility. Accessibility is also weighted at 20% for final recommendation purposes.

FINDINGS

Status Quo

Effectiveness

Since MHA-DC began offering peer and social support groups to veterans and their families through the Vet2Vet Program in 2017, there has been reason to boast in the program's effectiveness based on certain outcome measures. Most notably, there have been zero suicides among the veterans who have received peer and social support services through MHA-DC's Vet2Vet Program (based on client reporting, Fall 2022). This result is extraordinary, but it is not without its empirical limitations as selection bias is likely influencing the outcome. For example, the type of veterans who seek out involvement in community support groups could be less likely to commit suicide for reasons wholly disconnected from the Vet2Vet Program itself. Therefore, alternatives outside of the status quo should consider broadening the program's outreach, eliminating barriers to taking up treatment, or offering targeted services for higher-risk female veteran populations.

Peer support services have grown in popularity in recent years after much empirical work has demonstrated its broad benefits in both veteran and non-veteran populations. (Manuel et al., 2012; Drebing et al., 2018; De Sousa Machado et al., 2020; Proescher et al., 2022). This body of literature forms the base assumption that MHA-DC should continue its Vet2Vet Program. Therefore, alternatives outside of the status quo are aimed at either increasing Vet2Vet take up rates in the local female veteran population or improving a process within the existing program to identify risk factors in female veterans already receiving services. This alternative is rated as moderately effective with a score sensitivity range of 1.5 to 2 on a 0-3 scale.

Cost

The New York State Department of Budget designates $4.5 million annually for the Joseph P. Dwyer Peer-to-Peer Support Program (Vet2Vet). MHA-DC has received $185,000 annually to operate its Vet2Vet Program at the county level through 2022 (Serino, 2021). This grant amount increased to $230,000 for 2023 (Dutchess County Executive Budget, 2023). In addition to New York State funding, MHA-DC can apply annually for a $15,000 grant from Dutchess County to fund administrative expenses related to veteran program offerings or to increase program accessibility for Dutchess County veterans (Dutchess County Executive Budget, 2023).

This analysis makes a few assumptions about MHA-DC's costs associated with operating Vet2Vet according to the status quo. First, it is assumed that the 2023 Vet2Vet annual budget of $230,000 in nominal dollars will remain constant over the next five years. Second, it is assumed that MHA-DC's

annual operating costs will increase by 3% each year to account for inflation.[9] Lastly, it is assumed that MHA-DC will qualify for the $15,000 Dutchess County veteran programming grant every year. Therefore, the Vet2Vet Program within MHA-DC has an annual operational budget of $245,000 from 2023 through 2027. At present, MHA-DC can operate fully under the previous budget of $200,000 ($185,000 from the state grant and $15,000 from the county grant). This makes it possible for MHA-DC to explore cost-adding alternatives without reducing their current operational costs. MHA-DC plans to move facilities during 2023, so the $45,000 budget "surplus" anticipated this year may need to be spent on moving costs, facility renovations, and furnishings. These expenditures can be delayed to 2024 or later if the client wishes to implement recommended alternatives in the current calendar year. Accounting for 3% year over year inflation for the next five years, MHA-DC's direct costs should only increase to about $225,000 in 2027.[10] Maintaining the status quo and operating under budget would allow MHA-DC to spend more grant funds each year on practical and logistical needs apart from the proposed alternatives contained within this analysis. The status quo alternative ranks highest among all alternatives in the cost criterion with a score of 3.

Feasibility

Maintaining the status quo alternative is highly feasible since there are no additional administrative requirements borne to MHA-DC. While state legislation designating the Joseph P. Dwyer Program funds contains a provision allowing the Governor to cut or withhold program funding if the state's budget becomes unbalanced, this has not occurred since MHA-DC began their Vet2Vet Program. Instead, veteran program funding often expands over time, and reducing veteran assistance of any kind is often politically fraught. Therefore, continuing to execute the Vet2Vet program according to the status quo is the most feasible alternative (score of 3).

Accessibility

Presently, MHA-DC operates the Vet2Vet peer support program within the context of its multi-pronged veteran support approach. The organization runs parallel programs that provide emergency housing, employment resources, and crisis management. Veterans can be referred from one program to another based on their assessed need. In this regard, the status quo overcomes accessibility barriers for some unemployed, homeless, and/or substance addicted veterans. However, there are limitations to the Vet2Vet Program's accessibility in a few important ways. First, MHA-DC plans to move its offices to a new location approximately five miles northeast of downtown Poughkeepsie. Combined with the fact that MHA-DC does not provide transportation assistance for clients, this re-location could restrict access to services for veterans without the means to travel to the new location. Second, the peer support program is voluntary and depends upon veteran initiative to seek out initial services. This inevitably leads to selection bias in the type of veterans who receive peer support services. For these reasons, maintaining the status quo has a low to moderate accessibility score with a sensitivity range of 0.75 to 1.25.

[9] An assumed 3% annual inflation rate is based on the average annual CPI over the last 40 years (1982 to 2022). The annual CPI averages used for this calculation were obtained from the Bureau of Labor Statistics. Retrieved from: https://data.bls.gov/pdq/SurveyOutputServlet
[10] See Appendix 2: Calculation Tables.

Mailer Outreach Campaign

Effectiveness

Perhaps the most well-known academic research relating to mailer campaigns exists within American Politics. Researchers in this academic discipline have used wide-ranging methodological approaches to determine the effectiveness of mailer campaigns on voter turnout. A seminal work in this area was conducted by Gerber et al. (2008) which found that mailer campaigns leveraging social conformity pressures resulted in significantly higher voter turnout rates. The study used four different "mail treatments" to frame the messaging content for why recipients should turn out to vote.[11] The results ranged from a 1.8 percentage point increase (using "civic duty" treatment) to an 8.1 percentage point increase (using "neighbors" treatment) in voter turnout compared to the control.

Estimating the effectiveness of a mailer campaign on female veteran take up requires the explanation of few key assumptions. First, the least effective "mail treatment" framing technique ("civic duty") from Gerber et al. (2008) is used to assume that the mailer campaign will result in a 1.8 percentage point increase in female veteran "turn out." "Turn-out" is defined in this context as a female veteran presenting herself to MHA-DC for peer support services. It should be stated clearly that this analysis does not recommend that MHA-DC conduct a mailer campaign that intentionally leverages social pressure to achieve a desired outcome. However, the "civic duty" treatment is closely tied to familiar appeals that may even resonate with the veteran population. For example, the mailer might contain a message such as, "You served – now complete the mission. Receive the care and support you need." This type of message uses the concept of duty to encourage the recipient to seek out services.

The second set of assumptions pertains to anticipated data-related issues. Like the approach taken by Monteith et al. (2021), this alternative will utilize data from the VHA Corporate Data Warehouse (CDW) to identify the targeted female population within Dutchess County. Of the roughly 14,000 veterans living in Dutchess County, it is assumed that 13% (1,820 in total) are women.[12] Borrowing from Monteith et al. (2021), the anticipated receipt and response rate is 19.6% (356 in total). This receipt and response rate only represents the anticipated percentage of female veterans in Dutchess County that will receive the quarterly mailers and respond in some limited capacity (call MHA-DC for more information, visit the MHA-DC website, or fill out the embedded questionnaire within the mailer). Assuming a 1.8 percentage point increase in take up from zero, the targeted mailer campaign should result in about six new female veteran enrollees in the Vet2Vet Program (356 x 0.018 = 6). This is about a 54% increase in female veteran enrollment in MHA-DC's Vet2Vet Program. This alternative receives an effectiveness score of 1.6 to 2 due to its ability to bring more female veterans in for status quo services, presumably leading to lower incidence rates of negative mental health outcomes by the most modest margins.

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[11] See Appendix 3 for an explanation of the four mail treatments explained from Gerber et al. (2008).
[12] This percentage assumes that Dutchess County's veteran population roughly matches the estimated share of women in the military since the DoD established the "All Volunteer Force" (AVF) in 1973. The 13% assumption is close to the average share of women in the military over the last 50 years and is expected to roughly match the share of women in any randomly selected sample of retired veterans. Retrieved from: https://www.pewresearch.org/wp-content/uploads/sites/3/2011/12/women-in-the-military.pdf

Cost

Nonprofit organizations benefit from a reduced postage rate of about $0.16 per piece of mail. This means that MHA-DC could send out one mailer per quarter to every female veteran in Dutchess County for about $1,165. In addition to postage costs, MHA-DC should plan to spend about $500 to print premium postcards from an online retailer and $250 to outsource a professional design template.[13] In total, the anticipated annual direct cost of a quarterly mailer campaign targeting female veterans is $1,915. Assuming the data can be obtained, the additional $1,915 cost increases annual operating costs by about 1%, making this alternative the least costly alternative behind the status quo with a score of 2.9.[14]

Feasibility

This alternative requires a moderate amount of additional administrative effort from MHA-DC. Outsourcing the printing and design of the physical mailers eliminates some administrative effort, but mailing the completed postcards will require additional staff hours. Substantial time and effort would need to be spent on obtaining permissions to access the VHA CDW data. Assuming the data can be obtained through MHA-DC's existing VA partnership, this alternative will score on the higher end of the feasibility score range. It is estimated that this alternative will require between four and eight additional hours of staff work on average per week during the implementation year. For this reason, this alternative receives a feasibility score ranging from 2 to 2.5.

Accessibility

This alternative is moderate to high in accessibility since the outreach method should reach every female veteran with a physical address. Of course, this alternative is not accessible to homeless veterans in Dutchess County. Additionally, the mailer campaign only makes female veterans aware of MHA-DC's services and does not assist them in any way to overcome the transportation limitations they may have. Even still, this alternative receives the highest accessibility score range of 2.25 to 2.75 because it will likely reach the largest number of female veterans.

Increase Mental Health Screenings

Effectiveness

Warner et al. (2011) found that pre-deployment mental health screenings were associated with significant risk reductions in negative mental health symptoms such as PTSD, depression, and suicidal ideation. Specifically, service members who received pre-deployment mental health screening experienced a 28.5% risk reduction for combat operational stress reactions, a 54.1% risk

[13] This estimate was obtained from Vistaprint.com. A full reference can be found in the reference list.
[14] If the targeted data request from the VHA CDW is denied, MHA-DC may elect to send mailers once per quarter to every household in Dutchess County at a cost of about $35,000 annually. This would raise MHA-DC's annual operating costs by 17.5% and would result in a cost score of 1.25.

reduction in suicidal ideation, and a 78.2% risk reduction in psychiatric behavioral health disorders. Unlike the military units observed in Warner's study, MHA-DC cannot order individuals to receive services when they are identified as being high-risk. MHA-DC is also unable to provide the same clinical treatments to high-risk veterans within the nonprofit. Instead, MHA-DC would have to refer high-risk clients it identifies to VHA services outside of the organization to expect the results found in Warner's study. Fortunately, MHA-DC recently hired a Veteran Counselor to fill this role. The Veteran Counselor would take the results of the screenings and refer clients to programs within MHA-DC or to formal VHA services.

This alternative can be administered to both male and female clients in Vet2Vet, but female screenings should combine questions from the Warner et al. (2011) study and the Kimerling et al. (2015) study to capture a wide array of mental health risk factors including military sexual trauma. This report assumes that there will be no direct reduction in negative mental health outcomes simply by screening MHA-DC clients more frequently. Therefore, the effectiveness score for this alternative is the same as the status quo (1.5 to 2). In service to MHA-DC's requests, this alternative should still be fully evaluated to understand the results across the other criteria.

Cost

Depending upon the implementation method, this alternative could result in minimal additional costs to MHA-DC. Since the organization already conducts initial screenings for each new client, increasing screening frequency will simply result in an increase in office-related supplies for the organization. The assumed annual cost for pen and paper implementation is an additional $1,000 per year. However, if MHA-DC chooses to purchase five base-model iPads to administer and efficiently record and analyze the data received, there would be a one-time startup cost of $3,750 in the first year of implementation.[15] It is recommended that MHA-DC invest in this method of implementation to save administrative costs over the long term and gain the capability to rapidly analyze data. This alternative receives a direct cost score of 2.8 since it requires a 1.88% increase in MHA-DC's annual spending in the first year.

Feasibility

This alternative is moderate to high in feasibility based on the chosen implementation method. While conducting pen and paper questionnaires will save MHA-DC direct costs, the administrative burden to analyze these types of screenings is greater. Collecting screening data through digital means significantly lowers the administrative burden on the organization. Additionally, free software can be leveraged to automatically identify high-risk clients based on screening responses. Streamlining this analysis will result in more rapid and tailored care either within MHA-DC or in conjunction with a VHA provider. Since it is estimated that the Veteran Counselor will need to devote two to four hours per week to implement this alternative, it receives a feasibility score range of 2.5 to 2.75.

[15] The total cost of $3,750 reflects a $750 per iPad cost.

Accessibility

This alternative ranks low to moderate for accessibility. Conducting screenings on site only becomes universally accessible once a client enters the doors at MHA-DC. This alternative is susceptible to the same kinds of selection bias discussed in the status quo alternative. Since this is a relatively low-cost alternative, MHA-DC may choose to implement this alternative in conjunction with an alternative which attempts to increase take up or remove barriers to care (alternative 2 or 4). As a stand-alone alternative it receives the status quo accessibility score range of 0.75 to 1.25.

Provide Childcare During Services

Effectiveness

According to Manuel et al. (2012), mothers with access to instrumental support and partner support are significantly less likely to experience depression. Instrumental support is defined as tangible support such as receiving financial support from family or having access to childcare. In the study, partner support was defined as intimate partner support. The study found that instrumental support led to a 7% average reduction in depression, and the presence of partner support led to a 37% average reduction in depression among mothers (p. 2018). These results should not be expected to transfer precisely into this proposed alternative, but a few assumptions can be made. Providing childcare as a stand-alone service for young mothers can reduce rates of depression. Since this alternative both provides childcare for mothers and allows them to participate in a social support program, it is assumed that recipients of these services will experience a 20% reduction in poor mental health symptoms on the aggregate. This alternative ranks higher in effectiveness than the mailer campaign since this alternative provides instrumental support and the opportunity for social support. Since this alternative is estimated to reduce negative mental health outcomes by a moderate amount, the effectiveness score spans the low to moderate scale with a 1.9 to 2.3 sensitivity range.

Cost

Assuming a three-hour peer support meeting and an average childcare cost of $33 per hour, MHA-DC could hire childcare services at about $100 per extended peer support meeting.[16] These extended meetings would not have to be offered for every single encounter but could be conducted once per quarter for clients who qualify. To serve 12 women, MHA-DC could hire a childcare service agency to provide one-on-one care for three women per week (one day per week) for an entire month. This care could be hired during the months of January, April, July, and October. Hiring childcare services for nine hours per week for four consecutive weeks during four separate months out of the year would result in $4,800 in direct costs to MHA-DC. This annual cost is assumed to increase by 3% each year along with normal operating costs. Even still, this alternative stays within the assumed budget limit of

[16] The $33 per hour estimate comes from data obtained from the Day Care Council of New York. Their website claims that the average cost of "part-day" childcare in New York City is $47 (averaging for all ages). Since the cost of these services in New York City is likely much greater than in Poughkeepsie, this average part-day rate was reduced by 30% to come to the assumed $33 per hour childcare cost. Retrieved from: https://www.dccnyinc.org/families/what-to-look-for-in-a-program-provider/market-rates/

$245,000 through the year 2029. This alternative, however, imposes the largest direct cost on MHA-DC (outside of the one-time mailer campaign), but this direct cost is only a 2.4% increase in annual spending. This alternative receives a cost score of 2.75.

Feasibility

Implementing this alternative would require MHA-DC to maintain the ability to convert a space in their new service location to easily facilitate the childcare services and reduce the logistical burden for mothers. Additional administrative time and effort should be spent acquiring toy donations from within the community to provide an adequate space. This is not expected to result in additional direct monetary costs, but coordinating for its acquisition will require increased administrative effort. Additional coordination is required to identify and hire a reputable childcare service agency from the local area. The administrative feasibility score for this alternative is low to moderate and ranges in score from 1 to 1.5.

Accessibility

Offering childcare for mothers struggling with depression or other mental health issues could incentivize more female veterans to take up peer support services. By fully eliminating the financial burden of the childcare offerings, women of all socioeconomic statuses may take advantage of this alternative. The method of advertising these services will also impact accessibility. If this alternative were adopted in conjunction with the mailer campaign, knowledge of the service would reach every female veteran with a registered address in Dutchess County. If the combined cost of the mailer campaign and childcare services is too great, MHA-DC may elect to advertise with simple flyers or on social media. Tradeoffs must then be considered as to who will receive the message based on access to social media and proximity to more densely populated areas. This alternative receives a moderate to high accessibility score ranging from 2 to 2.5.

OUTCOMES MATRIX & RECOMMENDATION

The outcomes matrix below depicts the values in graphical form from the above discussion on alternatives and associated criteria. Based on the results from the outcome matrix, it is recommended that MHA-DC execute the mailer campaign as their primary course of action. Outside of the status quo, this alternative is the lowest cost option and is expected to increase social support service take up rates among the female veteran population in Dutchess County.[17] While increasing mental health screenings cannot reduce negative mental health outcomes for female veterans by itself, MHA-DC has expressed interest in implementing this alternative to connect female veterans with treatment services outside of MHA-DC. Increasing screenings and executing a mailer campaign will only increase direct costs to MHA-DC by about 2.83% annually.[18] One tradeoff of implementing these alternatives instead of the childcare alternative is that they do not remove any significant barriers to treatment access.

	Status Quo	Mailer Campaign	Increase MH Screening	Provide Childcare
Effectiveness (30%)	Moderate (1.5 to 2)	Moderate (1.6 to 2)	Moderate (1.5 to 2)	Moderate (1.9 to 2.3)
Cost Rating (30%)	High (3)	High (2.9)	High (2.8)	High (2.75)
Feasibility (20%)	High (3)	Moderate (2 to 2.5)	Moderate to High (2.5 to 2.75)	Low (1 to 1.5)
Accessibility (20%)	Low (0.75 to 1.25)	Moderate to High (2.25 to 2.75)	Low (0.75 to 1.25)	Moderate to High (2 to 2.5)
Total:	Low Est: 2.1 High Est: 2.35	Low Est: 2.2 High Est: 2.52	Low Est: 1.94 High Est: 2.24	Low Est: 1.99 High Est: 2.32

[17] The mailer campaign is the alternative with the lowest costs apart from the status quo only if the campaign can be targeted to female veterans in Dutchess County. Referencing back to footnote 14, an untargeted mailer campaign would result in a 1.25 cost rating score. This would make the mailer campaign's low estimate total score equal 1.71. In this instance, it is recommended that MHA-DC continue operating according to the status quo.
[18] Assuming operating costs are $200,000 for 2023, implementing these two alternatives together will raise annual costs to $205,665 or raise total costs by 2.8325% for the year.

IMPLEMENTATION STEPS

The recommended alternatives will be implemented according to a universal implementation concept.[19] Implementation will consist of five phases: 1) alert the staff, 2) back brief, 3) gather necessary tools, 4) rehearse, and 5) execute. This framework can be applied to implementing the mailer campaign or increasing mental health screenings at MHA-DC.

Alert the Staff

During the first phase, Anthony Kavouras (Director of MHA-DC Veteran's Programs) will alert his staff of the chosen alternative(s). He will provide his intent and desired end state for the mailer campaign and/or the mental health screenings. During this initial phase, Mr. Kavouras will provide and manage his staff's taskings. Beth-Anne Canero and Alyssa Carrion serve in Specialist and Manager roles within MHA-DC programs.[20] While Mr. Kavouras manages taskings, intent, and end state, Ms. Canero and Ms. Carrion should be tasked with logistical tasks. Since Ms. Carrion already has a working relationship with the VA through a separate program, she should be tasked with requesting address data from the VHA CDW.[21] Ms. Canero would be tasked with designing the physical mailers and obtaining the five iPads required to administer screenings and analyze the response data. The Veteran Counselor will be tasked with developing a questionnaire and detailing the client treatment referral plan based on screening responses.[22]

Back Brief

During this phase, each staff member will provide Mr. Kavouras with their initial implementation plan. Back briefs will be due to the director no later than 30 days after the staff has been alerted. During this time frame, staff members should develop clarifying questions and identify and refine monetary and staff resourcing costs. At the end of this phase, staff members brief the director on their updated estimates. The director and staff members answer questions to clarify intent and the logistical implementation of each selected alternative.

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[19] See Appendix 4: Universal Implementation Plan.
[20] Beth-Anne Canero is the Vet2Vet Program Specialist, and Alyssa Carrion is the Staff Sergeant Fox Suicide Prevention Grant Program (SSG Fox SPGP) Manager.
[21] An academic guide from Stanford University covering the procedures for obtaining VHA CDW data was retrieved from: https://med.stanford.edu/content/dam/sm/s-spire/documents/VA-Data-Primer-2020-_Laura-Graham_10.12.20.pdf
*To avoid an extraordinary amount of request work, this would need to be bypassed based on MHA-DC's staff capabilities. The VA and MHA-DC already work together and exchange/receive grant funds through the SSG Fox SPGP. A joint interest in executing these alternatives should enable easier access to data.
[22] Screenings should combine questions from the Warner et al. (2011) study and the Kimerling et al. (2015) study to capture a wide array of mental health risk factors including military sexual trauma.

Gather the Tools

Once the director is satisfied with his staff's understanding from the back brief, the staff must begin gathering necessary tools. The staff has 90 days to complete this phase. This phase includes obtaining a design for the mailers, receiving an actionable postage quote, obtaining the addresses of female veterans in Dutchess County from VHA CDW, developing a QR code for easy mailer recipient response, completing the screening questionnaire, purchasing the iPads, and developing a framework (or obtaining a software) to analyze screening data.

Rehearse

This phase will begin approximately 120 days after the staff has been alerted and will conclude no later than 180 days after the initial alert. In this phase, staff members will test the tools they have gathered to identify administrative friction or unforeseen contingencies. It is the director's role to provide guidance to the staff regarding rehearsal conduct and to identify where the staff's plans could go awry. The mailer campaign will likely be verbally rehearsed, while the screening procedure could be rehearsed using volunteers or by the director himself completing a screening. Once the rehearsals are completed, the director will give corrective guidance to his staff to be made within 60 days.

Execute

The alternatives should be executed no later than 180 days (about 6 months) after the initial alert. During this phase, the staff executes their assigned tasks, and the director oversees and refines staff actions. After execution, an evaluation should be completed within the year to determine effectiveness based on the director's intent.

CONCLUSION

The problem outlined in this report seems enormous and intractable. As an Army Officer, a father to three daughters, and a husband to a female veteran, I understand the firsthand effects of some of these dynamics. Even still, the answer to the problem should not be dissuading the women we love from serving in such an honorable, albeit hazardous, profession. Instead, we must improve the military in which they serve and find ways to further support female veterans at every turn. It is my sincere hope that the analysis and recommendations contained in this report will accomplish that mission. For those who can make even the slightest impact, the task must be taken up every day. A small step forward is progress.

APPENDICES

Appendix 1: Criteria Score Rationale

Scores ranging from 0 to 3 are assigned to each criterion within every alternative in the analysis. The rationale behind the scoring for each criterion is explained below.

Effectiveness (30% weight)

The effectiveness criterion is outcome-focused and evaluates each alternative's potential for reducing the rate of negative mental health outcomes among female veterans. Negative mental health outcomes primarily include diagnosed mental illnesses such as depression, PTSD, and suicidal ideations. The status quo serves as the benchmark for "moderately effective" or an effectiveness score of 1.5. Alternatives are deemed more or less effective than the status quo based on the following ranges of anticipated increases or decreases in the rate of negative mental health outcomes for female veterans:

0 to .4 = increases negative mental health outcomes by over 50%
.5 to .9 = increases negative mental health outcomes by 25%-49%
1 to 1.4 = increases negative mental health outcomes by 1%-24%
1.5 = no change in negative mental health outcomes relative to the status quo
1.6 to 2 = decreases negative mental health outcomes by 10% or less
2.1 to 2.5 = decreases negative mental health outcomes by 11%-25%
2.6 to 3 = decreases negative mental health outcomes by 26%-75%

Cost (30% weight)

The cost criterion simply measures the direct cost of each alternative to MHA-DC in total dollars spent. The total cost for each alternative is computed over a one-year time period and adjusted for future inflation at a 3% annual rate. The alternative which imposes the lowest direct cost to MHA-DC is most ideal. Unless otherwise specified, it is assumed that all costs recur each year. The status quo receives the highest cost score of 3, and each percentage increase in additional cost reduces the cost score by .1. Alternatives receive lower cost scores based on the following thresholds:

3 = no additional cost to MHA-DC relative to the status quo
2.9 = 1% or less in additional operational costs
2.8 = 1% to 1.9% in additional operational costs
2.7 = 2% to 2.9% in additional operational costs
2 = 10% in additional operational costs
1 = 20% in additional operational costs
0 = 30% or more in additional operational costs

Feasibility (20% weight)

The feasibility criterion evaluates the administrative ease with which MHA-DC can implement each alternative. Aspects which hinder feasibility may include MHA-DC's staff and resource limitations, the time it takes for each alternative to be fully implemented, and the degree of complexity associated with each policy implementation such as coordination with external entities and community buy-in. Feasibility scores are assigned to each alternative based on the average number of additional weekly staff hours needed to implement the alternative.

3 = Zero additional staff hours needed per week
2.75 = Two additional staff hours needed per week
2.5 = Four additional staff hours needed per week
2.25 = Six additional staff hours needed per week
2 = Eight additional staff hours needed per week
1.75 = Ten additional staff hours needed per week
1.5 = Twelve additional staff hours needed per week
1.25 = Fourteen additional staff hours needed per week
1 = Sixteen additional staff hours needed per week
.75 = Eighteen additional staff hours needed per week
.5 = Twenty additional staff hours needed per week
.25 = Twenty-two additional staff hours needed per week
0 = Twenty-four or more additional staff hours needed per week

Accessibility (20% weight)

The accessibility criterion evaluates the degree to which each alternative can be utilized by all female veterans in Dutchess County regardless of race, socio-economic status, or military discharge status. The accessibility criterion is the most difficult criterion to score. Therefore, score sensitivity ranges are assigned to each criterion based on the assessed number of female veterans who are likely reached by the alternative.

Status Quo & Alternative 3 (MH screenings) = .75 to 1.25
- These alternatives only reach female veterans who would have received Vet2Vet services regardless of alternative implementation. The alternative does not make services more available in any way to more female veterans in the area.

Mailer Campaign = 2.25 to 2.75
-This alternative presumably reaches the most female veterans in Dutchess County

Provide Childcare = 2 to 2.5
- This alternative is believed to only reach the subset of female veterans in Dutchess County who have dependent children, so it ranks slightly below the mailer campaign at a range of 2 to 2.5.

Appendix 2: Calculation Tables

NET PRESENT VALUE CALCULATOR (assuming $245,000 budget annually from 2023-2028)

Year	Discount Factor	Net Present Value (3%)	Discount Factor	Net Present Value (5%)	Discount Factor	Net Present Value (7%)
2023	1	$245,000	1	$245,000	1	$200,000
2024	0.9709	$237,864	0.9524	$233,333	0.9346	$186,916
2025	0.9426	$230,936	0.9070	$222,222	0.8734	$174,688
2026	0.9151	$224,210	0.8638	$211,640	0.8163	$163,260
2027	0.8885	$217,679	0.8227	$201,562	0.7629	$152,579
2028	0.8626	$211,339	0.7835	$191,964	0.7130	$142,597

BUDGET SURPLUS ESTIMATOR

Year	Annual Operation Costs (3% Year Over Year Inflation)	Budget Surplus	Annual Operation Costs (5% Year Over Year Inflation)	Budget Surplus
2023	$200,000	$45,000	$200,000	$45,000
2024	$206,000	$39,000	$210,000	$35,000
2025	$212,180	$32,820	$220,500	$24,500
2026	$218,545	$26,455	$231,525	$13,475
2027	$225,102	$19,898	$243,101	$1,899
2028	$231,855	$13,145	$255,256	-$10,256

Appendix 3: Mail Treatments

Effects and Explanations of Various "Mail Treatments" from Gerber et al. (2008) Study

TABLE 3. OLS Regression Estimates of the Effects of Four Mail Treatments on Voter Turnout in the August 2006 Primary Election

	Model Specifications		
	(a)	(b)	(c)
Civic Duty Treatment (Robust cluster standard errors)	.018* (.003)	.018* (.003)	.018* (.003)
Hawthorne Treatment (Robust cluster standard errors)	.026* (.003)	.026* (.003)	.025* (.003)
Self-Treatment (Robust cluster standard errors)	.049* (.003)	.049* (.003)	.048* (.003)
Neighbors Treatment (Robust cluster standard errors)	.081* (.003)	.082* (.003)	.081* (.003)
N of individuals	344,084	344,084	344,084
Covariates**	No	No	Yes
Block-level fixed effects	No	Yes	Yes

Note: Blocks refer to clusters of neighboring voters within which random assignment occurred. Robust cluster standard errors account for the clustering of individuals within household, which was the unit of random assignment.
* $p < .001$.
** Covariates are dummy variables for voting in general elections in November 2002 and 2000, primary elections in August 2004, 2002, and 2000.

Source: Gerber, A. S., Green, D. P., & Larimer, C. W. (2008). Social pressure and voter turnout: Evidence from a large-scale field experiment. *American political Science review*, *102*(1), page 39.

*Civic Duty Treatment – Households receiving this type of mailer messaging were told, "Remember your rights and responsibilities as a citizen. Remember to vote." This treatment resulted in a 1.8 percentage point increase in voter turnout.

Hawthorne Effect - Households receiving this type of mailer messaging were told, "YOU ARE BEING STUDIED!" and informed that their answers would be examined publicly.

Self-Treatment – This messaging reminded recipients that voting records are matters of public record. The researchers vowed to disclose to each person's household whether each eligible voter casted a vote in a recent election.

Neighbors Treatment – This messaging increased the social pressure on recipients by telling them that both their household *and their neighbors* would be informed about whether they voted in the recent election.

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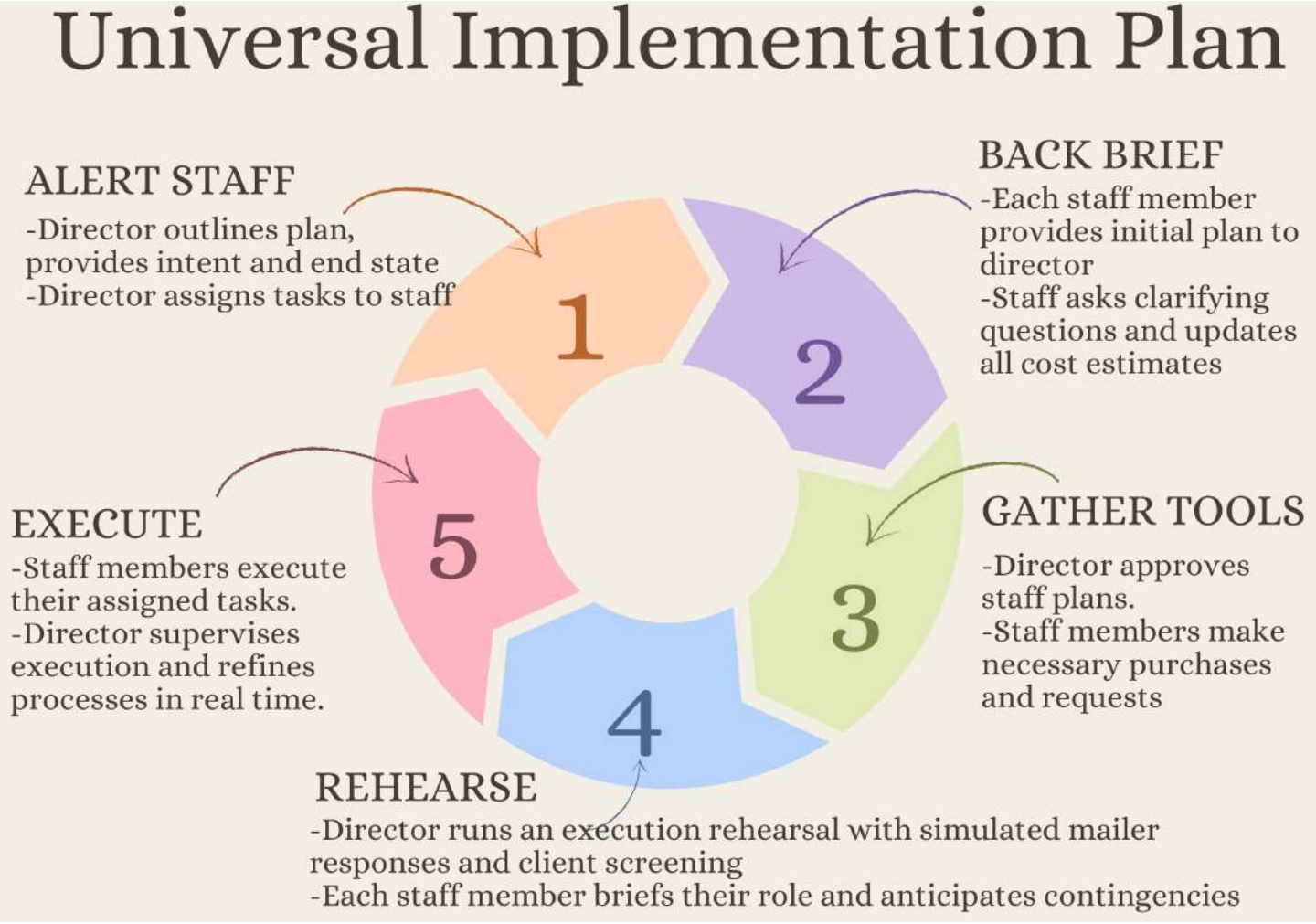
*The analysis borrows the civic duty treatment effect of a 1.8 percentage point increase in voter turnout to conservatively estimate the female veteran take up increase in Vet2Vet peer support services.

Appendix 4: Universal Implementation Plan Concept

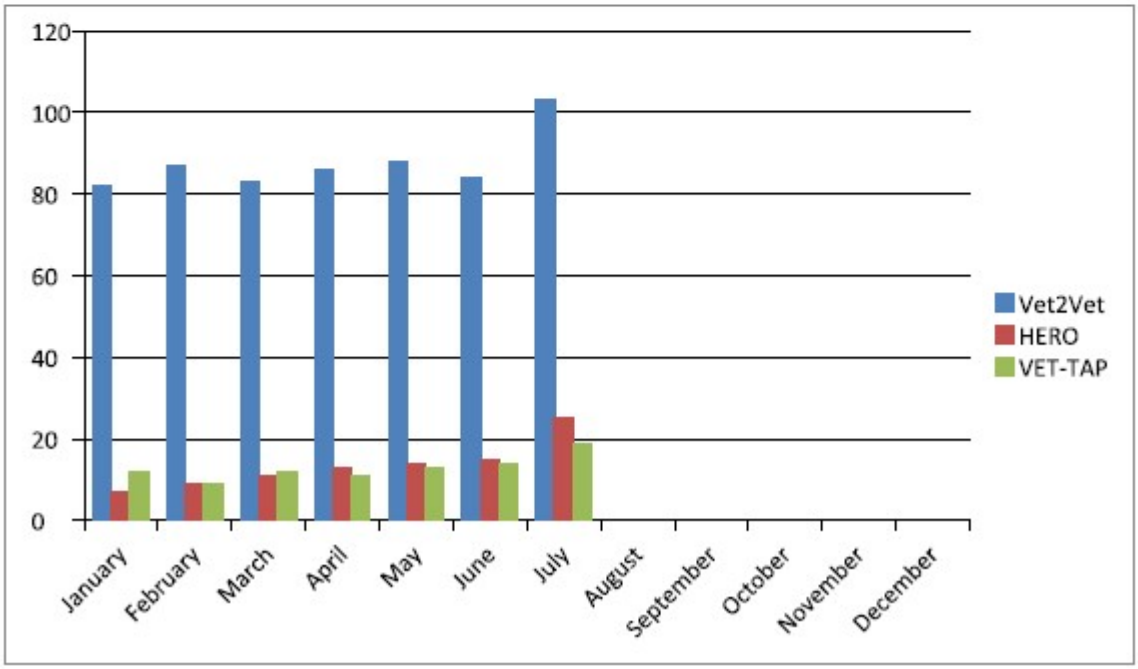


Appendix 5: MHA-DC Q3, 2022 Report

MHA Veteran's Programs comprise three distinct, but compatible offsets. They are the Vet2Vet, Housing, Employment, Reintegration and Outreach Program (HERO), and The Veterans' Employment Training & Transitions Assistance Program (VET-TAP). The Vet2Vet Program is funded by the Joseph P. Dwyer Veterans' Peer Services Project. Services include, but are not limited to, support groups, social activities, assistance in finding housing and/or employment for homeless veterans, referral to County Veteran Service agency for VA related Benefits and services, advocacy for all other State, Federal and local benefits, and much more. MHA'S Housing, Employment, Reintegration and Outreach Program (HERO) is a way for Dutchess County veterans and their families that are either homeless or facing homelessness to have an advocate and a resource in the county they live in. There are funds available for emergency housing, which can be used if necessary to keep our veteran families safe and sleeping with a roof over their heads. The Veterans' Employment Training & Transitions Assistance Program (VET-TAP) is dedicated to assisting all veterans looking to find new employment opportunities and strengthen their employability. VET-TAP can assist veterans in gaining new certifications and skills, as well as on-the-job training and apprenticeship opportunities. Additionally, VET-TAP can assist in building resumes and cover letters, to help in preparation for job applications. The goal of VET-TAP is to curb veteran homelessness through meaningful employment. VET-TAP, a Dutchess County funded program, works hand-in-hand with Vet2Vet's H.E.R.O. Program for housing assistance.

While each program has separate reporting responsibilities, which they meet monthly, quarterly, and annually, this report will include the culmination of those services as one entity.

Number of Referrals



Statistics

	Support Groups	Social Events	Veterans Housed	Veterans Employed
January	2	9	6	2
February	2	10	4	2
March	2	11	8	2
April	3	10	5	2
May	2	12	6	3
June	4	6	3	3
July	4	9	4	3
August	1	6	3	0
September	4	4	3	3
October				
November				
December				

	Group Attendance	In-Person Visits	Phone Contacts	Family Members Served
January	29	21	165	13
February	29	24	171	7
March	27	22	176	13
April	39	24	213	16
May	26	56	197	17
June	43	62	245	12
July	48	78	108	38
August	12	70	126	22
September	36	73	140	22
October				
November				
December				

The total number of Veterans served for this quarter was 2,765
Challenges/Obstacles: Many Veterans struggling with finances. Rents, utilities, transportation and food are the biggest issues.

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