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**Report to the Virginia Department of Veterans Services
Virginia Wounded Warrior Program**

***Assessing the Experiences, Supportive Service Needs and Service
Gaps of Veterans in the Commonwealth of Virginia
Final Report***

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Executive Summary

The Commonwealth of Virginia is the home to over 800,000 veterans who have served in conflicts ranging from World War II to the current engagements in the gulf region, Operation Iraqi Freedom (OIF/Iraq) and Operation Enduring Freedom (OEF/Afghanistan). The Virginia Wounded Warrior Program has been charged with coordinating and facilitating the services that are needed by Virginia’s veterans who have served in the United States military. In order to evaluate how to best serve and facilitate services for these veterans, the VWWP has commissioned a needs assessment of Virginia’s veterans that is summarized in this report.

The research study assesses and stratifies the service experiences, needs and gaps of veterans by the VWWP planning regions, age groups, conflict eras, branch of service, income, education and other designations. Information was gathered through an extensive statewide telephone survey; regional focus groups; inventorying and mapping existing veterans’ services; and the review of relevant program and academic literature. The result is a rich body of information that can be used by state program executives and policy makers to guide decision-making and resource development.

The research to discern the service experiences, service needs and gaps focused on all veteran cohorts, but particularly targeted veterans who have served since 2001 (OIF and OEF conflicts). According to Veterans Administration (VA) data, Virginia has had over 260,000 veterans that have served since 2001, the highest OIF/OEF veteran ratio of all 50 states. Virginia ranks seventh among the states in total veteran population and fourth in younger veterans (age 20 – 49).

Veteran Subgroups

Because the VWWP is organized to provide facilitative services under a regional structure, primary emphasis was placed on discovering regional differences among Virginia’s veteran population. Many variations were found at the regional level in veteran characteristics, service needs and gaps that can aid in developing priority initiatives by region.

While serving all veterans, the VWWP has made special efforts to provide and facilitate services for **OIF and OEF veterans**. According to the RAND Corporation’s *Invisible Wounds of War* (Tanielian and Jaycox 2008), nearly one-third of the service members returning from OEF or OIF are affected by post-traumatic stress disorder (PTSD), major depression, or traumatic brain injury (TBI). The research results indicate that OIF and OEF veterans residing in Virginia have higher rates of reported depression, TBI and PTSD than do veterans in general. However, Vietnam veterans have the highest rates of depression indicators and PTSD of all combat era cohort groups.

The **National Guard and Reserves** have been another veteran group identified by the VWWP for program and research emphasis. These groups of veterans have experienced higher rates of deployment, and many multiple deployments, during the OIF and OEF conflicts than during

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any previous conflict. The historically high rate of multiple deployments for members of the National Guard and Reserves are perceived as causing greater health, financial, employment and personal strain than in their career military counterparts. It is also suspected that National Guard and Reserve families have greater stress as a result of fragmented supports between deployments and from being isolated from other military families. The results of the research support these perceptions.

While the research study did not specifically focus on **sex** and **racial** differences among veterans, comparative analysis by sex and race indicate disparities in satisfaction with health status, financial and employment situation and access to health care. The research indicates that the Virginia population of female veterans is expected to increase at a significantly higher rate than the nation as a whole. The findings of this survey reveal that there are statistically significant variation based on sex and race but the limited number of female participants (161) in the telephone survey and focus groups compels the need for additional research.

Priority Needs of Veterans

The research identified the top needs of veterans as including better information regarding how to access services, reducing barriers to quality healthcare services, additional/better services for their families and employment/economic assistance. In the category of better **information**, veterans want more coordinated information on how to access services and meet eligibility requirements. Information portals need to be made available to both service providers and veterans and be responsive to varying veteran needs and demographics.

Reducing barriers to services includes the need for more fluid access to providers across VA and other health systems, longer/weekend appointment hours at VA facilities, transportation supports, and reducing the risk and stigma of seeking mental and behavioral health services. Veterans and service providers to veterans also pointed to the need to address **issues of economic hardship**, such as the high cost of living in areas such as Tidewater and Northern Virginia, employment insecurity for National Guard and Reserves, and the ability to afford health care for services that are not covered. **Service needs of veterans families** include improved awareness and information regarding military culture, supports for struggling families, more mental health services for family members and more seamless information and support for National Guard and Reserve families isolated from other military families.

Service Gaps and Barriers

The research identified primary service gaps and barriers as including lack of coordination between agencies and service providers, lack of cultural competence (knowledge of military and veterans culture) among service providers, the stigma/risk of pursuing services in the military community, lack of funding or eligibility for services, job training, education and also employment assistance.

Both veterans and service providers for veterans see **lack of coordination** and partnerships among veteran serving agencies and providers as a major barrier to better serving veterans. Gaps in the system of care between VA system and other health care providers are seen as resulting in limiting both access and quality of care. The **lack of insurance coverage** and availability of providers also creates service gaps. Veterans identified a range of services including mental health, dental and family therapy as either not available in a community or inconvenient. The perception was that there was a lack of funding for these community-based services. Many veterans indicated that they did not see the benefit of pursuing mental and behavioral services due to the lack of **cultural competency** of those providing services. Both

service providers and veterans voiced that the **stigma and risk** of pursuing services is a major barrier. Of particular note, National Guard and Reserve members fear losing their ability to be deployed if they seek treatment for mental and behavioral health issues.

The difficulty of **obtaining and maintaining eligibility** for services and health care coverage is reported as a primary barrier for veterans. Veterans also report that **training, employment and educational opportunities** need to be more widely available and better matched for transitioning from military to civilian life.

Current Services/Providers and Ideas for Improving Services

Survey respondents and focus group participants were asked to identify the programs and agencies that they see as providing the most responsive and quality services. The programs and agencies that were mentioned include the **Veterans Administration** (specific programs and locations), the **Virginia Wounded Warrior Program, Peer-to-Peer programs, Department of Rehabilitative Services and Community Services Boards**.

Veterans and service providers were also asked to suggest ideas for improving services to Virginia veterans. Top ideas included: centralized case managers and one-stop resource centers for veterans; improved service provider coordination and partnerships; training and outreach programs; improved cultural competence of service providers; more funding for community services; improved information network; and targeted employment training and education services.

Veterans and service providers supported the concept of a **central case manager** to assist veterans with accessing health care, employment, financial and other services. Veterans highlighted the desire that case managers be peers or well trained and experienced with veteran and military services. Both veteran and service provider constituencies perceive that **improved coordination and partnerships** among existing providers would greatly reduce barriers to and gaps between services. However, it was also widely suggested that community-based providers (non-VA system) would need **enhanced funding** to provide many needed services.

Both groups also agreed that improved **training and outreach** could reduce the stigma of veterans accessing and complying with mental and behavioral health services. Veterans called for more targeted **employment, training and education** support services to better match and leverage military competencies to the civilian job market.

Applications and Limitations of the Research

The research provides input directly from veterans and those that serve veterans about veteran characteristics, their service experiences, and how to improve their experiences. The statewide survey and focus groups provided primary data from which to determine service experiences, needs and gaps, as well as eliciting suggestions for addressing needs and gaps. The maps provide a geographical representation of where services are located and where service demands appear to be the greatest. The suggestions that emerged from the focus groups are supported from the survey results. For instance in the call for more centralized information and case management a related and common response from the survey was “*respondent doesn’t*

feel like there is much information about veteran services/programs in area” or “respondent would like to see someplace to go to find out information.” The research team has then attempted to find support for the suggested service changes and has linked this supporting evidence to the recommendations in **Section VII** of this report.

The research reveals a great deal about veterans based on geographic region, branch of service, conflict era, age, income and education. The findings of this survey reveal that there are statistically significant variations based on sex; however, the limited number of female respondents (161) in the telephone survey and focus groups compels the need for additional research. The survey results provided some discernable information on the racial difference of white and black/African American veterans; however sample size for other veterans was too small for generalizable analysis. The research points to a strong connection between education and economic/physical wellbeing. Many survey and focus group participants indicated that improved coordination of education services was important and needed but there were only a few student veterans or representatives of higher education who participated in the focus groups. Obtaining additional information from these constituencies is strongly recommended.

The survey contained an abundance of data that has been highlighted in this report; however the wealth of information could not be completely represented in this report. The report highlights the program and data needs priorities for the Virginia Wounded Warrior Program. However, the data can be mined and analyzed to address additional program and policy questions as they arise or to gain additional information about subgroups within the Virginia veteran population. **Appendix 1 and 2** provide information about the type of data collected in the survey and focus groups. Requests can be made to the VWWP or Virginia Tech Institute for Policy and Governance to provide analysis of the information not provided in this report.



I. Introduction

In August 2009, The Virginia Tech Institute for Policy and Governance (VTIPG) began assisting the Virginia Wounded Warrior Program (VWWP), of the Virginia Department of Veterans Services (DVS), in assessing the service experiences (consumer satisfaction), emerging/unmet needs and service gaps of veterans residing in the Commonwealth of Virginia. While all veterans' experiences and needs were assessed, particular consideration has been given to the mental and behavioral health and traumatic brain injury service needs of veterans and the special characteristics and needs of veterans of Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF).

The needs assessment has included four major components: 1) development and execution of a general consumer satisfaction and needs telephone survey of all veteran groups; 2) focus groups with veterans, their family members, and the primary current service providers of these veterans; 3) assessment of geographic placement of veterans' services in relation to the residential placement of Virginia's veterans and geographic assessment of most significant needs and services; and 4) a summary prioritization of identified needs and gaps and recommended administrative and policy approaches to meeting the comprehensive needs of Virginia's veterans.

II. Purpose and Background

The purpose of the needs assessment is to provide information and data on the service needs and gaps of Virginia's veterans. This information will be used to inform program design and allocation decisions as well as enlighten policy development and change. Baseline data on the distribution of the veteran population across Virginia and the general characteristics of this population provides an overarching context and was instrumental in informing survey and focus group design. The survey provides a broad spectrum of information and data on the characteristics of Virginia's veteran population, as well as a depth and breadth of data on veterans' experiences, needs and service gaps. The primary purpose of the focus groups was to further identify needs and gaps from both the service provider perspective and the veteran

viewpoint, and to elicit more in-depth information on the types of services that are needed to fill service gaps.

A. The Virginia Wounded Warrior Program

In response to the growing need to improve and expand services to Virginia's veterans and service members, the Commonwealth of Virginia established the Virginia Wounded Warrior Program (VWWP) in 2008. It is operated through a cooperative agreement between the Virginia Department of Veterans Services and the Department of Behavioral Health and Developmental Services (DBHDS) and the Department of Rehabilitative Services (DRS).¹

The VWWP supports the following persons on their road to recovery from the effects of stress-related injuries (such as post-traumatic stress disorder) or traumatic brain injuries:

- Veterans of any era who are Virginia residents
- Members of the Virginia National Guard not in active federal service
- Virginia residents in the Armed Forces Reserves not in active federal service
- Family members of veterans and service members

The VWWP works to coordinate regional coalitions of community services boards, brain injury services providers, and other public and private service providers in offering services across the Commonwealth. The goal is to create coalitions to enhance the existing array of services in Virginia's communities based on an ongoing assessment of local needs.

The following are examples of the services that may be available through the coordinated networks of public and private providers:

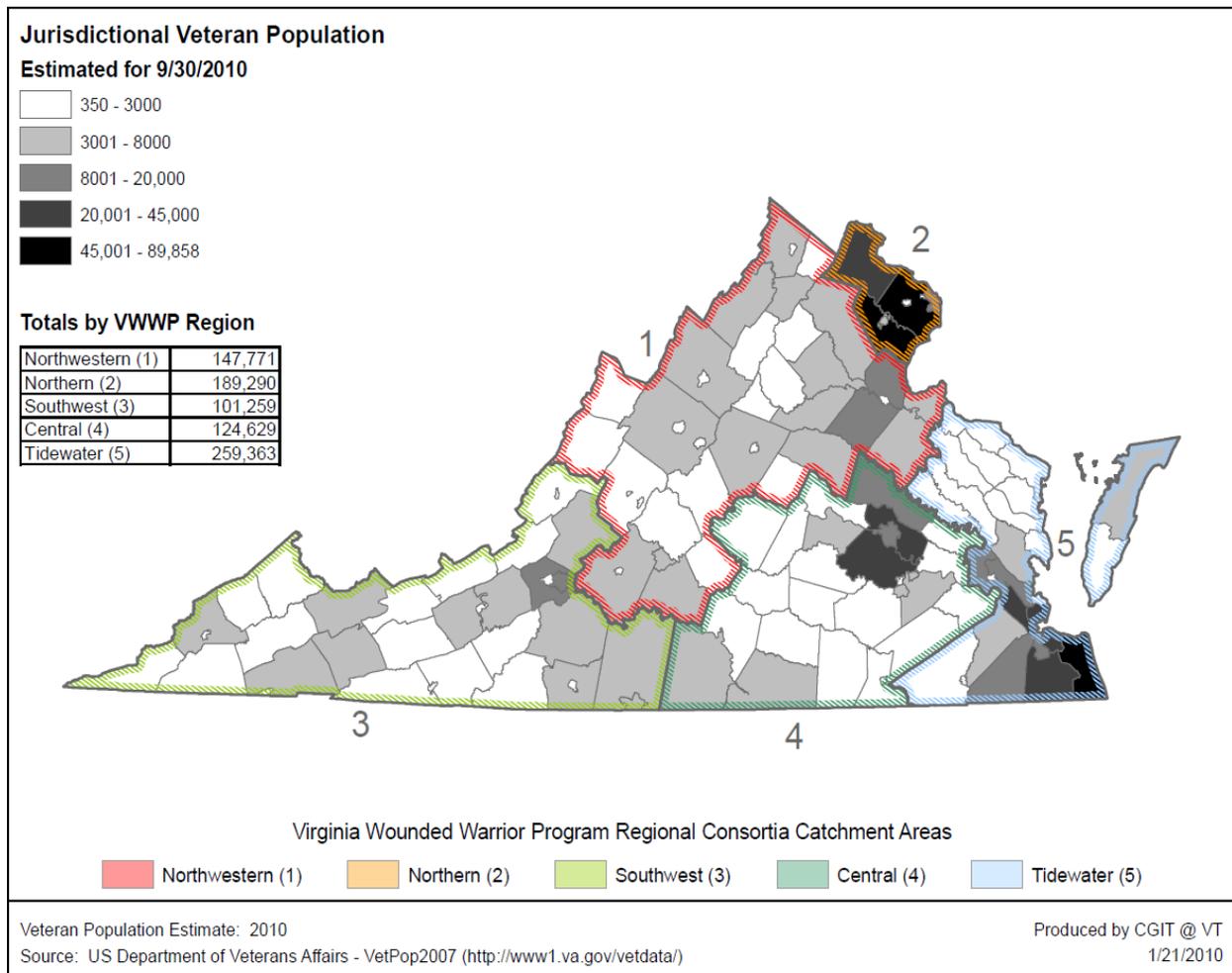
- Comprehensive and timely assessment
- Case management
- Outpatient treatment
- Outreach activities
- Rehabilitative services
- Family support
- Linkage to benefits services, housing, employment and educational programs

The VWWP is structured with both centralized and decentralized capacities, with an emphasis on building local and regional capabilities. The program facilitates collaborations with partner

¹ <http://www.dvs.virginia.gov/woundedwarrior> Accessed 6/14/10

state agencies at the state level and funds and support initiatives at the local and regional levels. The VWWP is made- up of five regions as depicted on **Figure 1**.

Figure 1



B. Veterans and Service Members in Virginia

The VWWP is building capacity to meet the changing needs of veterans, National Guard and Reserve members in Virginia, who in September of 2010 are forecast to number over 820,000 (U.S. Department of Veterans Affairs - VetPop2007 <http://www1.va.gov/vetdata/>). The VWWP and DVS recognizes that through the changing dynamic of deployed military forces from career military personnel to a greater portion comprised of National Guard and Reserve forces, that the type of services required and how services are facilitated are also changing. **Table 1** illustrates the distribution of the veteran population across the VWWP regions.

Table 1
Current and Projected Veteran Population by Region

Region	2000 (census results used as baseline)	2009 (estimated based on Community Survey)	2010 (Projected)	2020 (Projected)	Change from 2009 to 2010 projection
Northwest	135,962	147,098	147,771	145,823	-.87%
Northern	182,831	188,318	189,290	194,734	3.41%
Southwest	109,565	101,594	101,259	92,836	-8.62%
Central	124,553	124,183	124,629	121,139	-2.45%
Eastern	235,060	258,298	259,363	243,197	-5.85%
Total Virginia	787,971	819,490	822,312	797,728	-2.66%

Source: U.S. Department of Veteran Affairs National Center For Veterans Analysis and Statistics.

The projections indicate that the overall veteran population is expected to peak in 2010 and then decline by 2020, though the veteran population in the Northern region is forecast to grow by 3.41% during the timeframe.

Table 2 illustrates the distribution of Virginia veterans by age compared to the national distribution and two states, Florida and California with similar high rates of OEF and OIF deployments.

Table 2
Age Distribution

Age Range	U.S.	%	Virginia	%	California	%	Florida	%
20 – 34	1,891,132	8%	85,846	11%	185,041	9%	122,963	7%
35 - 49	4,713,197	20%	217,361	27%	409,976	19%	333,588	19%
50 - 64	7,901,577	33%	265,485	33%	680,254	32%	514,014	29%
65- 79	6,378,464	27%	172,384	21%	577,420	27%	499,995	29%
80 - 90+	2,923,096	12%	65,852	8%	278,405	13%	275,568	16%
Total	23,816,018		807,326		2,131,939		1,746,539	

Source: U.S. Department of Veteran Affairs National Center For Veterans Analysis and Statistics

Virginia is seventh among all states in total veteran population and fourth in the number of younger veterans (age 20 – 49).

Table 3 provides a breakdown of veterans by conflict era and “peacetime”, compared to the national distribution and two states, Florida and California with similar high rates of OEF and OIF deployments.

Table 3
Veteran Distribution by Conflict Era/Peacetime

Veteran Category	National	%	Virginia	%	California	%	Florida	%
All Veterans	23,816,018		807,326		2,131,939		1,746,539	
Wartime Veterans	17,739,441	74%	608,919	75%	1,594,873	75%	1,310,403	75%
Gulf War	4,965,953	21%	261,301	32%	440,312	21%	346,124	20%
Vietnam Era	7,884,366	33%	261,563	32%	697,458	33%	526,870	30%
Korean Conflict	2,960,719	12%	76,060	9%	277,182	13%	258,901	15%
WWII	2,911,876	12%	65,189	8%	277,929	13%	279,149	16%
Peacetime Veterans	6,076,577	26%	198,407	25%	537,066	25%	436,136	25%

Source: U.S. Department of Veteran Affairs National Center For Veterans Analysis and Statistics (Note: “Gulf War” refers to veterans who have served since 2001.)

III. Literature Review

The VWWP of the Department of Veteran Services, in partnership with DBHDS and DRS, was created to support veterans residing in Virginia, National Guard members and Armed Forces Reserves not in active federal service, and family members of veterans and service members who are experiencing the effects of stress-related injuries (PTSD) or traumatic brain injuries. While the VWWP serves veterans of all combat and peacetime eras, special focus of the research summarized in this report and accompanying academic and professional research has been on the special characteristics, service related injuries and conditions of recent combat veterans. Recent combat veterans are characterized as those who have been deployed since 2001 (primarily includes veterans who have been deployed in Afghanistan and Iraq in Operations Enduring Freedom and Iraqi Freedom termed OEF/OIF). Combat stress or post-traumatic stress disorder (PTSD) and traumatic brain injury (TBI) are considered the “signature injuries” among troops in Afghanistan and Iraq. As a result of the numbers of military personnel with PTSD and TBI; numerous commissions, task forces, a Presidential Commission, and independent groups have been convened to address the effects of such injuries on the military personnel, their families, and the medical systems that are providing services. Government and academic studies have begun to investigate and report on the emerging needs, service requirements and program/organizational need of veterans. The government and academic research is relevant to the design of this needs assessment, as well as the mission and ongoing operations of the VWWP. The following literature was collected to inform the development of the needs assessment design and will be used to support the needs assessment and resulting recommendations. The literature review is organized according to area of focus including mental health, PTSD, community and family engagement and system change.

Comprehensive: The RAND Corporation, a nonprofit research organization, has produced a monograph on PTSD, major depression, and TBI titled [Invisible Wounds of War](#) (2008) and a working paper [Invisible Wounds](#), which has, in part, been incorporated into the monograph. The study examines health care needs post-deployment, the systems in place to meet the health care needs, gaps in the system, and the costs of providing needed services. The title reflects how veterans’ emotional wounds are invisible to their comrades, family members, and the community at large.

Mental Health: Several independent studies have addressed the mental health diagnosis and care of Iraq and Afghanistan veterans as related to a specific diagnosis.

- [*Trends and Risk Factors for Mental Health Diagnoses Among Iraq and Afghanistan Veterans Using Department of Veterans Affairs Health Care, 2002-2008.*](#) (Metzier, et. al, 2009) This study focused on an increase in mental health diagnosis after the Iraq War and addresses the need for early interventions, which may prevent chronic mental illness.
- [*Mental Health Care for Iraq and Afghanistan War Veterans,*](#) Health Affairs, addresses barriers to veterans seeking treatment and access to appropriate mental health services post deployment. (Burman 2009)
- [*Psychosocial Buffers of Traumatic Stress, Depressive Symptoms, and Psychosocial Difficulties in Veterans of Operations Enduring Freedom and Iraqi Freedom: The Role of Resilience, Unit Support, and Postdeployment Social Support,*](#) examines how social supports can help protect against stress and depressive symptoms. (Pietrzak, et al, 2010)
- [*Mild Traumatic Brain Injury in U.S Solders Returning from Iraq*](#) explores that symptoms related to MTBI often do not manifest until 3-4 months after the veteran returns home. (Hodge, et al, 2009)
- [*Military TBI During the Iraq and Afghanistan Wars*](#) addresses the need for joint treatment of PTSD and TBI, which are often joint diagnosis. (Warden 2009)
- [*Traumatic Brain Injury: Care and Treatment of Operation Enduring Freedom and Operation Iraqi Freedom Veterans*](#) reviews TBI as an illness, prevalence among veterans, and how the Department of Veterans Affairs is currently addressing the issue. (Corby-Edwards, 2009)

Post-Traumatic Stress and Brain Injury: As a result of the prevalence of TBI and PTSD studies on the cost of providing care to veterans with TBI/PTSD have been conducted to determine the current costs and predict future costs of treatment and disability claims. Of particular focus in providing post deployment services is how to engage the National Guard and Armed Forces Reservists in community based services.

- [*Challenges Associated with Post-Deployment Screening for Mild Traumatic Brain Injury in Military Personnel*](#) focuses on the need to use screening tools that more accurately reflect the symptoms of MTBI in order to minimize false positives in testing and to diagnosis those veterans who have experienced MTBI but have not been previously identified and treated. (Iverson, et al, 2009)
- [*Veterans with History of Mild Traumatic Brain Injury and Post-traumatic Stress Disorder: Challenges from the Provider Perspective*](#) addresses the need for the VA to evaluate the provision of treatment to veterans with both TBI and PTSD as both diagnoses are most often associated with each other and the VA treatment protocols often have separate treatment teams providing treatment in a fragmented delivery system. (Sayer, et al, 2009)
- [*Exploring the Convergence of Post-traumatic Stress Disorder and Mild Traumatic Brain Injury*](#) is an examination of the interaction between TBI and PTSD. (Stein & McAllister, 2009)
- [*Getting Beyond “Don’t Ask; Don’t Tell: an Evaluation of US Veteran Administration Postdeployment Mental Health Screening of Veterans Returning from Iraq and Afghanistan*](#) reviews the current VA health system screens for mental health symptoms and how these screenings may help to overcome the stigma that veterans attach to seeking mental health treatment. (Seal, et al, 2008)

- [*Mental Health Problems, Use of Mental Health Services, and Attrition from Military Service After Returning From Deployment to Iraq and Afghanistan*](#) highlights the high numbers of veterans seeking mental health services after returning from combat during OIF. (Hoge, et al, 2006)
- [*Post-traumatic Stress Disorder Symptoms and Functional Impairment Among OEF and OIF National Guard and Reserve Veterans*](#) examines the interaction between TBI and PTSD among National Guard and Reserves members who volunteered to participate in the study. (Shea, et al, 2008)
- [*Combat Duty in Iraq and Afghanistan, Mental Health Problems, and Barriers to Care*](#) evaluates members of the armed forces who experience combat in Iraq and Afghanistan relating the combat experiences to the need for mental health services. (Hoge, et al, 2004)

Community and Family Engagement: Engaging veterans in the community and providing support to the family members of the veterans has been the focus of study and special interest projects that may be viewed as best practices for community integration of returning veterans.

- [*All Volunteer Force from Military to Civilian Service*](#) offers the idea of engaging the veteran in the community by utilizing the skills gained from military service in volunteering through working with non-profit community based organizations. (McNaught and Bridgeland, 2009)
- [*Risk and Protective Factors for Homelessness among OIF/OEF Veterans*](#) outlines the risk factors that lead to homelessness among OEF/OIF veterans. (Fairweather, 2006)
- [*Alcohol Use and Alcohol-Related Problems Before and After Military Combat Deployment*](#) researches the reported high usage of alcohol misuse after returning from combat as related to binge drinking, controlled alcohol consumption, and alcohol related legal problems. (Jacobson, et al, 2008)
- [*Secondary Traumatization Among Wives of PTSD and Post-Concussion Casualties: Distress, Caregiver Burden, and Psychological Separation*](#) addresses the impact that PTSD has on marital relations. (Arzi, Solomon, & Dekel, 2000)
- [*Educating Military Personnel and Their Families about Post-Deployment Stress*](#) is a RAND working paper on the development of new communication material for veterans and their families that address post-deployment stress. (Meredith, et al, 2008)
- [*Soldiers Returning from Iraq and Afghanistan: The Long-term Costs of Providing Veterans Medical Care and Disability Benefits*](#) evaluates the current veterans' health delivery systems and makes system recommendations to allow the system to meet the demands of a growing population seeking services. (Bilmes, 2007)

IV. Research Methodology, Data Collection and Analysis

A. **Survey Sampling Design** - The VWWP supplied the initial contact records to Virginia Tech for the Virginia Veterans Needs Assessment Survey data collection effort. The Virginia Tech Center for Survey Research (CSR) was retained to implement the survey data collection. After an initial telephone survey instrument was developed by CSR and revised through several rounds of review by staff at the Virginia Tech Institute for Policy and Governance (VTIPG) and VWWP, the survey was pre-tested in order to test the viability of the individual survey items as well as the accuracy of the veteran contact data. The survey instrument utilized in the pre-test was approved by the Virginia Tech Institutional Review Board (IRB) for use with human subjects. The survey is provided as **Appendix 1**.

The survey pre-test revealed that many contact records for Virginia veterans were not viable and some survey items needed to be revised in order to clarify the meaning of the questions for survey respondents. After the necessary survey revisions were made, and the Virginia Tech IRB and VWWP representatives approved the project, data collection for the project was initiated by CSR.

During the initial weeks of data collection it was discovered that there was a need for more contact records for younger/more recently deployed veterans because this group was under-represented in the completed interviews based on the original 13,258 records that were randomly selected from among those provided by VWWP. Therefore, VWWP subsequently provided several files that were created by scanning available mailing labels for veterans leaving service in recent years. Specifically, VWWP provided three files including recent Virginia veteran addresses for this purpose to Virginia Tech. CSR randomly pulled 6,000 records from the three files (proportionate to the percentage of records on each file: 2,400 from File 1 because it represented 40% of the scanned records; 1,740 from File 2 because it represented 29% of the scanned records; and 1,860 from File 3 because it represented 31% of the scanned records). These randomly selected records were sent by CSR to Survey Sampling International of Fairfield, CT, for reverse lookup in order to locate and append any available telephone records for this group. A success rate of 19% was achieved for the reverse lookup due to addresses on the database that were no longer viable or not associated with a current phone number. Therefore, CSR pulled an additional 12,000 records proportionate to each of the total record counts on each of the three files provided by VWWP for reverse telephone number lookup. The two telephone lookup efforts yielded 3,404 additional telephone numbers

for inclusion in the eligible sample pool (1,154 from the first reverse lookup and 2,250 from the second lookup). These 3,404 records were added to the 13,258 original records included in the eligible sample pool for the study. Therefore, the final total number of sample records attempted for the study was 16,662.

B. Data Collection Procedures: All telephone calls for the survey were made by CSR staff members utilizing a Computer-Assisted Telephone Interviewing (CATI) system at the Blacksburg, Virginia location of the Virginia Tech Center for Survey Research. All calls were made between November 2009 and April 2010. CSR wrote a calling program to be used with CATI for administering the Virginia Veterans Needs Assessment Survey. The program provides scripted survey items, precludes out of range responses and facilitates real-time data entry of all responses gathered on the telephone.

Each interviewer collecting data for the survey project participated in a project-specific training session. All interviewers working on the study have worked on a variety of survey projects and have participated in multiple training sessions in both interviewing techniques and CATI. Clarifying notes for specific survey items appeared on the CATI screens for interviewers to ensure that identical prompts were used for respondents requesting additional information about survey items or response categories.

CSR programmed all call scheduling such that each sample member remaining as a non-respondent had been attempted to be reached six times on average at different times of day on different days of the week by the completion of the project. A total of 16,662 telephone numbers were attempted during the survey administration. Respondents who indicated a language or hearing barrier such that they could not respond were excluded from the eligible sample pool (N=156). Non-working telephone numbers (fax tones, out of service/disconnected numbers, automated disconnect services) were also excluded from the eligible sample pool (N=4,482). After contacting some households, interviewers were told that the veteran listed in the sample database was not in the home and had never been in the home, these records were coded as “*wrong number/veteran not in home*” and were excluded from the eligible sample pool (N=1,861).

There were 392 veterans in the sample pool who were identified by household members as deceased. These 392 records were removed from the eligible sample pool, as were 94 sample

records for veterans who were identified as being unable to respond due to disability. There were 45 records removed from the eligible sample pool because the contact person on the record reported that they were not veterans. These records were removed from the eligible sample pool, as were 27 records for which veterans reported that they were no longer in Virginia. Nineteen records were removed from the eligible sample pool because the veteran was reported by a household member answering the phone to be deployed to a location such that they were unable to participate in the survey.

After elimination of all ineligible records described above, the remaining number of eligible sample members was 9,586. A total of 2,035 interviews were completed for this study. The average length of the survey interviews completed for the study was 23.17 minutes.

Many sample members were never reached after numerous attempts and a final disposition of “no answer” or “answering machine” was assigned. Therefore, the residency rate among these households is unknown. It may be assumed that a number of these households are indeed, ineligible sample members due to non-residence.

CSR utilizes a call conversion protocol in which all calls coded as “soft refusals” are re-attempted at a later date. A call is coded as a “soft refusal” when the potential respondent refuses but does not indicate a reason for exclusion from the calling pool (i.e. refusal due to illness, request to be removed from the calling pool, etc.). Likewise, all telephone numbers deemed to be temporarily disconnected are attempted periodically throughout the duration of the study.

All cases included in the final dataset for the project represent fully completed interviews. Attempts to fully complete interviews with respondents completing partial interviews were made when a call disposition of soft refusal or scheduled callback was coded after the partial completion. Partially completed interviews were not included in the final number of survey completions used in the tabulations, nor in the final dataset for the study.

Table 4
Disposition of Survey Calls

Total Initial Sample	16,662
Ineligible Sample:	7,076
Non-working telephone number (fax tones, out of service/disconnected numbers, automated disconnect services) (4,482)	
Wrong number/veteran not in home (1,861)	
Hearing/language barrier (156)	
Deceased (392)	
Unable to respond due to disability (94)	
Not a veteran (45)	
Currently deployed (19)	
Veteran no longer in Virginia (27)	
Eligible Sample	9,586
Total Number of Completed Interviews	2,035
Non-respondents:	7,551
Final disposition of no answer, busy, answering machine, or callback after numerous attempts (6,482)	
Refusals (1,069)	

Based on a total of 2,035 completed interviews, the survey has a sampling error of ± 2.17 percent. Therefore, in 95 out of 100 surveys completed with this number of interviews using the same sampling methodology and parameters, the results obtained would fall in a range of ± 2.17 percent of the results that would be achieved if interviews were completed with every potential veteran (in households with working telephones) included in VWWP databases. Smaller sampling errors are present for items on which there is polarized response (e.g. 90 percent identical response on an item).

C. **Survey Analysis** - After completing data collection via the CSR's Computer Assisted Telephone Interviewing System (CATI), all data were downloaded and cleaned (for any codes that needed to be collapsed into existing response categories due to open-ended responses or

typographical errors in open-ended responses) and labeled in SPSS software. After response frequencies were tabulated for all closed-ended responses, variables were constructed by CSR combining some survey items into descriptive variables. For example, a variable was created to identify respondents who had been deployed since the year 2004 since this was a year of interest to the VWWP. Likewise, a depression score was calculated utilizing survey items related to depression such that this variable could be utilized in subsequent statistical analyses. The depression was created combining all 'often' and 'sometimes' responses from all items on Q9 (a-i) with 'yes' responses on Q17 and Q18. The score was then split into None, Low (1-5), Medium (6-10), High (more than 10).

For all tables reporting color-coded statistical tabulations, percentages are reported based on cross-tabulations of the variables depicted on the row against the variables depicted on the column. Chi-square tests were run on all variables depicted in the tables utilizing dichotomous variables constructed for each column depicted in the table. Findings are presented in the tables by respondent region of residence, income, branch of service, education, age, gender, race, and deployment location/status. Percentages depicted in green represent statistically significant ($\leq .05$) higher responses (percent responded) when compared with the overall group. All red percentages represent statistically significant ($\geq .05$) lower responses (percent responded) when compared with the overall group.

In order to provide a comprehensive assessment the research team used the following analysis protocols. First, the research team conducted analysis of the statistically significant variations of the eight selected independent variables (branch of service, VWWP region, deployment eras, age, race, sex, income and education). This analysis and summary provides an overview of data collected in the survey. Second, VTIPG conducted additional cross-tabs, frequency comparisons, multiple regression, one-way ANOVAs, and other regression analysis to provide more in-depth analysis of the survey data. This multivariate analysis results in profiles of those that experienced depression, brain injuries, substance abuse and PTSD. Finally, word clouds and key word searches were used to provide additional information about open-ended responses to the telephone survey questions. The word clouds provide information about the frequency of certain responses by the total survey sample. Word searches were used to provide qualitative data about key issues for the VWWP. These included, but were not limited to, head injuries, substance abuse, PTSD, depression, and medical/mental health related needs.

D. **Focus Groups** - Focus groups were conducted in each Virginia Wounded Warrior Program Region with two distinct groups 1) veterans, and 2) service providers to veterans (mental health, healthcare, employments services, etc.). Focus groups were utilized to provide additional layers and details to the information that was collected in the statewide survey, as well as identification of regional resources and ideas on program and policy improvement.

The focus groups used a nominal group technique (NGT), a structured variation of a small-group discussion to reach consensus. NGT gathers information by asking individuals to respond to questions posed by a moderator and then asking participants to prioritize the ideas or suggestions of all group members. The process prevents the domination of the discussion by a single person, encourages all group members to participate, and results in a set of prioritized solutions or recommendations that represent the group's preferences.²

Process:

1. Introduction – at the beginning of the session, participants were welcomed, and asked to introduce himself/herself and provide information about his/her interest and the organization they represented. As participants entered the room they were given a short pre-survey. (5 - 10 Minutes)
2. Background information (framing the discussion): The survey team provided background information about the research findings. This brief discussion focused on key findings and questions raised from the key findings. (15 - 20 minutes)
3. Data collection: The primary portion of the focus group process and using the nominal group process as detailed *in Appendix 2*. Data was collected in four primary categories.
 - a. Most critical needs of veterans.
 - b. Best services currently available to meet the needs.
 - c. Most lacking and poorest quality services.
 - d. How to improve services and delivery. (See attachment 1 for primary and subcategories and variation for veterans and provider groups.)
 - i. (50 minutes - 1 hour, 15 minutes)
4. Conclusion/Synthesis: This portion of the process included drawing conclusions and synthesizing information collected from the focus group and provided the members an opportunity to finalize thoughts and information. Post surveys were provided for larger focus groups to measure whether participants feel the outcomes reflected their input and consensus. (15 - 25 minutes)

² Ryan M, Scott DA, Reeves C, Bate A, van Teijlingen ER, Russell EM, Napper M, Robb CM. (2001) "Eliciting public preferences for healthcare: a systematic review of techniques " Health Technology Assess; 5(5): 1-186.

Personnel: The focus group process required a minimum of two people from the VTIPG team to effectively carry out the process (moderator and recorder). The moderator guided the group through the questions, asked questions to facilitate discussion, monitored discussion to make sure that everyone was involved in the process, and ensured the process stayed on schedule to complete the process. The recorder was responsible for taking notes throughout the process and wrote up the responses to be reviewed and voted on by the participants. A third person, when available, recorded additional notes and observations.

Recruitment Protocol: The VWWP regional directors and their staff contacted veterans and service providers through their various networks for focus group participation.

Focus Group Result Analysis: Focus group results were compiled for each focus group and then aggregated within the region and across the state for service providers and veterans separately. The project team conducted frequency analysis on the focus groups. The analysis aggregated the frequency of similar responses as well as priorities placed on the items by focus group participants through the point system described in **Appendix 2**. Focus group results and analysis are summarized in **Section VI and detailed in Appendix 15**.

E. **Mapping** - As the assessment project was initiated, maps detailing locations of veteran related services were created using the Virginia 211 directory, Virginia Department of Veteran Services service provider directory and the U.S. Department of Veteran Services directory of services. These maps included information about service providers across the state including mental and physical health services, substance abuse treatment, and employment support services. Also, maps were created using the U.S. Census data to show the population dynamics based on the VWWP Planning Regions. Finally, maps were created from the data collected from the telephone survey to provide geographic based information about health and life satisfaction. Maps created were based on the survey that are included in this report are related PTSD, depression, and substance abuse. **Appendix 3** shows additional maps that were generated based on the telephone survey. These include: overall health, financial situation, ability to pay bills, substance abuse including substance abuse locations and VA facility utilization in relationship to VA facility locations.

F. **Levels of Analysis** - The survey was developed to elicit information from Virginia veterans regarding their service needs, service preferences and perceived gaps in services. The survey emphasized health care utilization physical, mental and behavioral health needs and

characteristics and characteristics of veterans with higher probability of service related traumatic brain injury.³ Additional specific emphasis was placed on discerning the needs and characteristics of OIF and OEF veterans. Specifically, the survey provided a wealth of knowledge of the following health/wellness areas:

- Life status satisfaction – health and services
- Life status satisfaction – relationships, daily living and financial
- Mental health characteristics
- Head injury
- Behavioral health statistics
- General health conditions/pain
- Health care utilization and access
- Health care access – insurance
- Health care access – disability
- Veterans claims and veteran services
- Veteran service utilization – veteran services
- Unmet medical and service needs
- Education and employment
- Demographics and family status

The analysis seeks to highlight these issues as they vary across the selected independent variables. The independent variables that were selected were: VWWP Region, branch of service (including National Guard and reserves), deployments (conflicts and frequency of deployments), race, sex, age, education, and income. The following sections use these independent variables because they provide significant information on respondent characteristics and how characteristics (satisfaction, needs and preferences) change as the independent variable shifts. The analysis also includes profiles based on the VWWP priority areas of brain injury, post-traumatic stress disorder, and depression.

³ A noted limitation of the survey and resulting data are the questions regarding potential brain injury. Two questions (Q10 and Q11) were phrased to measure the occurrence of “head injury”. Therefore associated responses could be referring to both brain injury and head related cranial fracture. Head injury responses are intended to be a possible indicator of traumatic brain injury.

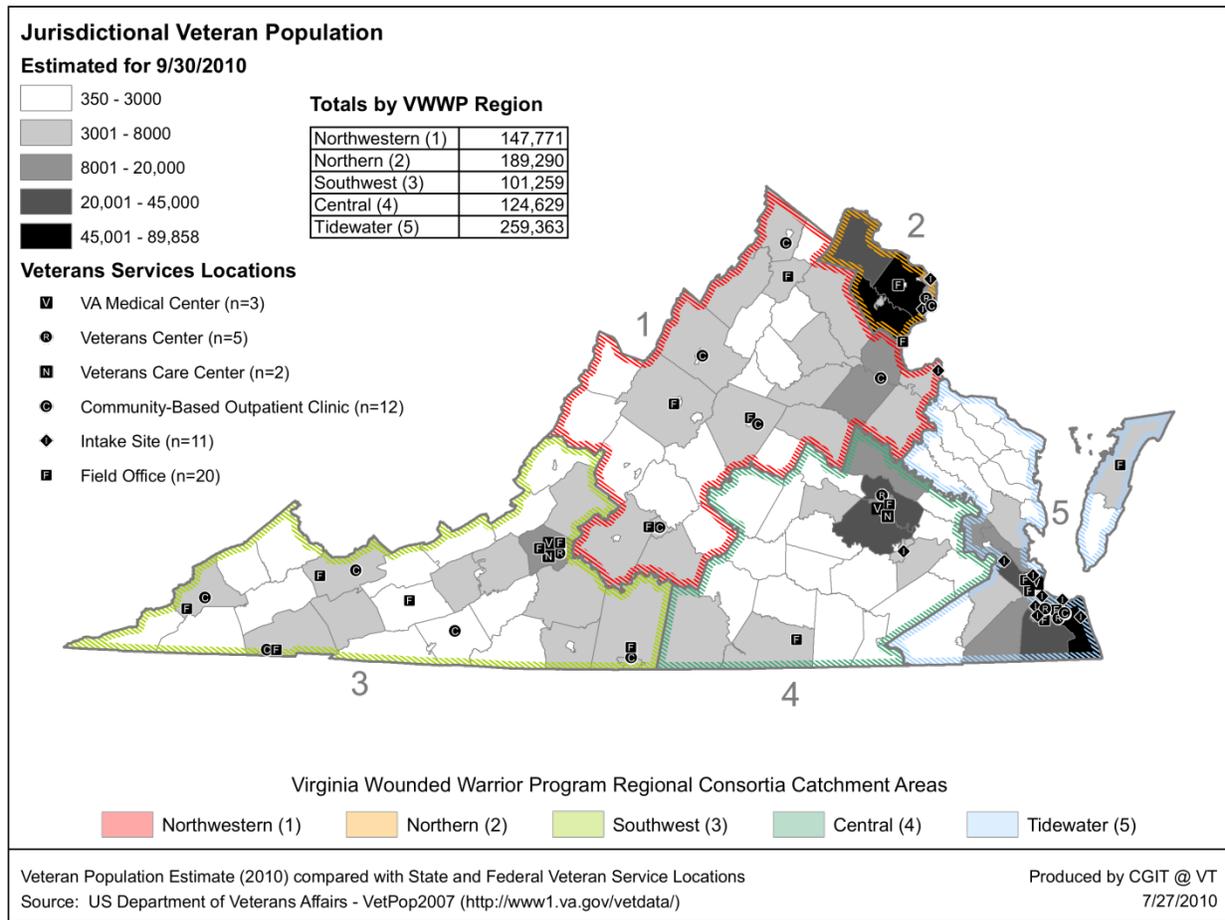
V. Survey Data Analysis and Results

Overview of Analysis Section: The final sample size of the survey was 2,037. The following sections provide detailed analysis of the survey results. These sections are: VWWP Planning Regions, Branch of Service, Deployment Location and Frequency, Race, Sex, Education, Income, Profiles Based on VWWP Priority Areas, and frequency analysis of open-ended responses. **Appendixes 3-12** provide the statistical and narrative summary of each of these identified independent variables. All green percentages represent statistically significant ($\leq .05$) HIGHER responses when compared with the overall group. All red percentages represent statistically significant ($\geq .05$) LOWER responses when compared with the overall group. The analysis indicates when responses controlled for the independent variable subcategories are higher or lower than the state average of all respondents.

A. Region

Statistical breakdown of data by the **VWWP Regions** is represented in **Appendix 4**, which provides the relevant data broken down by the five planning regions of the VWWP. The following map demonstrates the composition of the five VWWP planning regions, distribution of the veteran population across Virginia by region and locality and state/federal veteran services programs.

Figure 2



A primary focus of the survey was to determine the needs, preferences and specific characteristics of veterans at the regional level. Therefore particular effort was made to obtain sufficient sample size from each region in order to be to make inference at the regional level. **Table 5** provides a summary of the survey response rates by region and accompanying confidence intervals at the regional and state level.

Table 5
Veteran Population and Regional Survey Response Rates

Region	Survey Response Rate	Confidence Interval ⁴ at 95% Confidence Level
Northwestern (1)	710	3.67
Northern (2)	293	5.72
Southwest (3)	300	5.65
Central (4)	299	5.66
Tidewater (5)	435	4.69
Total Virginia	2,037	2.17

At the regional levels the response rates allow for a +/- 3.67% to a +/-5.72 confidence interval at 95% confidence level.

Significant Findings: The following outlines significant finding at the regional level. Additional highlights are outlined in **Appendix 12**.

1. Northwest Region – the Northwest region has a higher number of Marine Corps veterans (21%) and male veterans (96%) compared with other regions of the state. Twenty-eight percent of the region’s veterans were deployed after 2004 with fourteen percent deployed to Iraq (33% of which have had multiple deployments) and five percent deployed to Afghanistan (11% with multiple deployments). Needs identified include more conveniently located medical and dental providers and lower cost of medical care.

The Northwest region had lower rates for respondent reported diagnosis of PTSD, (6.6%) and head injury (18% service related head injury rate), than the state rates of PTSD (7.5%) and head injury (20%). In the open-ended questions, 88 respondents reported experiencing PTSD. Of the respondents reporting head injuries, 20 reported needing additional help. The 20 respondents felt the current options were not beneficial or convenient. Also this group reported the need for additional education for family and friends. The respondents also reported frustration about being disabled and not getting appropriate compensation from the military.

⁴ The **confidence interval** (also called margin of error) is the range at which the survey results can be applied or inferred to the population. For example, if the sample size provides a confidence interval of 4 and 50% percent of your sample picks a particular answer there is “certainty” that if you had asked the question of the entire relevant population between 46% (50-4) and 54% (50+4) would have picked that answer.

They also voiced frustration with the training and cultural competence of current service providers. A recent combat veteran reported that he struggled opening up to his VA counselor because of his ethnicity (Pakistani). Another respondent reported: *“he has PTSD, he tried counseling at the Salem VA, however, he found the counseling to be pretty bad and his issues never got resolved... sometimes he would go for counseling and they would ask him why he was there! He never got to see the same person twice, every time he'd go, there was a different counselor.”* In response to question 47 – *“Please specify what type of additional or improved psychological or mental health care services you need in your community,”* the same respondent said: *“He would like to have a local counselor with whom he could talk from time to time, to help out with his PTSD issues. He finds talking to somebody to be helpful and states that sometimes you can't talk to your family about these issues.”* Another recent combat veteran reported that he has PTSD and lives with various family and friends until they get tired of him and he is forced to move to the next one.

The Northwestern veteran population has a higher utilization of Medicaid and Medicare as insurance and a lower level of VA disability rating than other regions. Heart disease is reported at a higher rate (13%) than the state average (9%). The region's veterans also have a lower level of educational attainment compared with the state average (veterans not having beyond a high school education was 40% for the Northwestern region compared to the state average of 32%). The respondents had less interest in employment assistance (33%) than other regions.

2. Northern - the Northern region is characterized by higher levels of Air Force veterans (20%) and the highest ratio of female veterans (15%). The region's veterans have had higher rates of deployments to Afghanistan, Bosnia and Somalia, and multiple deployments to Vietnam. Forty-five percent of the regions veterans have been deployed since 2004. Twenty-two percent have been deployed to Iraq (21% multiple deployments) and six percent have deployed to Afghanistan (28% multiple deployments). Identified needs include greater convenience of VA system services and other veteran services, and better transportation to services. The Northern Region had the highest percentage of respondents who were never married (9.6%).

The Northern region had average rates for respondent reported diagnosis of PTSD, (7.2%). Thirty-nine respondents discussed their experience with PTSD in their open-ended responses. Several respondents reported that they had sought assistance for PTSD but wanted additional

services that were closer to them. Two female respondents stated that they would like to have someone to talk to about their PTSD and would like to see additional groups for women.

This region also had the highest rate of reported head injury (26% service related head injury rate). Six respondents reported specifically that they had experienced a traumatic brain injury. In the open-ended responses, a Northern Virginia veteran reported experiencing hearing loss and other issues related to a head injury, while another reported experiencing a head injury while training at Fort Dix. A recent combat veteran also reported experiencing a head injury and lost consciousness four times, three of which occurred while in service. Another respondent, who is a white male with some college, under 50 years old and had served in the army, reported experiencing both PTSD and traumatic brain injury and that some providers were unclear about what really was going on with him. He later reported wanting to return to work and that “*his mood was preventing him from working.*” He sees a counselor three times a week and a psychiatrist once a week. He also spends extensive time in the hospital.

Other medical issues that were reported by Northern region veterans at a higher rate than the state average include chronic back pain and back injury, sleep problems and a higher rate of moderate (26%) and high (1%) headache frequency. Respondent 238 reported that pain associated with tinnitus led to alcohol abuse because it was the only thing that would help him get to sleep.

The region’s veterans have higher access to dental services and utilization of TRICARE as insurance. There is lower utilization of VA system services but higher rates of VA disability rates and filing of VA claims. The region’s veterans have the highest level of educational attainment (67% report college or advance degrees) full-time employment (64%) and annual income (51% earn \$100,000 or more). This group was also the most satisfied with their “*current employment situation*” (81.9%).

3. Southwest – The Southwest region has the second highest rate of Army veterans (65% of Southwest veterans) and largest percentage of Vietnam veterans (36% of responding Southwest veterans). This region has the highest ratio of veterans who are “*no longer in service but not retired.*” Iraq veterans comprise 11% (15 percent with multiple deployments) and Afghanistan veterans make up only 1.3% of respondents. The highest percentage of divorced/separated individuals appeared in the Southwest region (17.7%).

Southwest veterans have lower levels of satisfaction with “*overall health*” (survey Question 7a) and “*ability to pay bills,*” “*cost and quality of medical care,*” “*access to dental care,*” “*overall financial situation*” and “*employment*” (66.3% satisfied with their current employment situation). This region also had the highest percentage of those that earn between \$10,000 and \$50,000 annually. The Southwest region had the highest level of reported medical diagnosis with heart attacks and daily “*severe pain*” as lead health problems. This region also had higher percentages of respondents with high blood pressure and high cholesterol. A Vietnam veteran, who suffered from PTSD, reported needing additional counselors in his region

Southwest region had the highest level of depression scores and the highest level of PTSD (11%). In the open-ended responses, there were 72 respondents that talked about PTSD. One respondent discussed experiencing violent reactions to loud noises as result of PTSD and cannot be in certain locations/jobs as a consequence. A veteran in his fifties reported not being able to work due to PTSD. A recent combat veteran reported needing additional information at discharge from service. He did not know where to go or who to call which was very difficult given his PTSD and anxiety associated with this disorder.

The region has the highest level of tobacco consumption and heavy alcohol consumption, as well as the highest level of respondents who report never drinking (58%). In the open-ended responses, 25 respondents stated they had a history of alcohol abuse. Two of these respondents reported using alcohol as a means of self-medicating. The region has the highest ratio of reported substance abuse diagnosis (12%).

Veterans in the Southwest region are the highest users of VA medical care and identify Medicare as the most common insurer. Southwest region veterans identify unmet medical, dental, mental health and financial needs that should be addressed in the community.

Southwest region veterans have the highest rate of reported admission for mental health treatment (10%), incarceration (19%), homelessness (13%) and food insecurity (18%). The region’s veterans have the lowest rate of educational attainment with 53% not advancing beyond high school or GED. Southwest veterans have the highest rate of retired, “*not employed,*” divorced and white veterans, and report the lowest income levels.

4. Central – The Central region has the highest proportion of Army veterans (70%) with National Guard and Reserves comprising 38% of the respondents. Sixteen percent of respondents were deployed to Iraq (31% of these with multiple deployment) and 3% had deployments to Afghanistan (25% of these with multiple deployments).

Responding veterans report moderate substance abuse indicators with 8% indicating diagnosis of substance abuse and 11% having been told by someone that they believe they have a substance abuse problem. In the open-ended responses to question 18 about their substance abuse problem, 18 respondents reported they had a history of alcoholism. Another seven respondents reported using “*drugs*.”

Central region veterans also report frequent moderate daily pain (53%), diabetes, heart attack/disease, high cholesterol and higher rates of high blood pressure (18%). Central region veterans report higher levels of PTSD (10%) and an average level of head injuries (21%). When asked about medical conditions he experienced, a college educated black male who served in the Army discussed experiencing a head injury from a parachute jump that causes anxiety. Also, 18 respondents reported depression and 55 respondents in this region discuss experiencing PTSD in their open-ended responses. Another white male in his fifties who served in the Army, reported that he had “*seen 15 ‘doctors’ at the VA, several of which were students, who had been unable to treat his PTSD.*” A recent combat veteran, who served in the Navy, reported the need for additional counselors who deal with PTSD and military illnesses. This was also supported by four additional respondents who had PTSD from military service and would like additional treatment. In the open-ended responses, PTSD was cited by two veterans for reasons that they avoided others. It brought back “*bad memories*” and felt they “*could not handle it.*” A Southwest veteran also reported struggling to “*make ends meet*” because of PTSD and his inability to work due to the stress.

Central region veterans report unmet dental care needs and higher rates of mental health service utilization (24%). These veterans have a higher utilization of VA system services and are more likely to be retired or not employed than the average Virginia veteran. Central region veterans are more likely to be African American/black and have low and moderate-income levels. Education levels align with the state average.

5. Tidewater - The Tidewater region has the highest proportion of Navy veterans (48%) and a higher ratio of Air Force veterans (18%) with National Guard and Reserves comprising 7% of the respondents. Veterans deployed to Iraq were 19% (41 percent of these with multiple deployment and with 4% with deployments to Afghanistan (24% multiple deployments). The region has the highest ratio of Persian Gulf veterans (29%). The Tidewater region also had the highest response rate of married veterans at 80.9%.

Tidewater veterans report higher levels of “*life satisfaction*” with the convenience of getting services from the VA system as an exception (only 47% satisfied). Tidewater veterans had lower rates of depression indicators than the average Virginia veteran and 5% reported PTSD. In their open-ended responses, 39 respondents reported experiencing PTSD. A Tidewater respondent reported: “*he wanted to feel like he did when he entered the service because he has tremors on the right side of his body as a result of TBI and PTSD.*” Another veteran reported that he would like to see more competent counselors for PTSD. He stated: “*I would also like to see counselors not put patients on medication for PTSD because it doesn't solve the problem at all; instead they should help soldiers work through their problems with counseling. If there were counselors who truly cared, there would be far fewer suicides after returning from combat. I had trained and later spoke with a soldier who, upon returning from Iraq, went to Fort Eustis and needed counseling but never received any. A week and a half later, he took his life. I really wonder why there are counselors there because they didn't really do anything. He was 25 years old.*” A recent combat veteran reported that his experience with PTSD created problems with his relationships with family and friends because “*they don't understand what he went through.*” A female veteran reported that she “*would love to work but she has too many medical/counseling appointments associated with prior military service.*” Nine of the respondents discussed the need for more additional/more competent services for PTSD.

Twenty-two percent reported service related head injuries. Nine respondents discussed their experience with TBI in their open-ended responses. Other more highly reported medical conditions include chronic back pain (13%) and sleep problems (9%). Tidewater veterans reported higher rates of substance abuse indicators including moderate and frequent alcohol consumption with 10% reporting drinking once a day or more.

Tidewater veterans have greater dental service utilization and lower mental health service utilization. Barriers to health care include – appointment times not convenient for work

schedules and childcare. The region's veterans are the highest users of TRICARE insurance (65%) and have a higher ratio of having a VA disability rating (67%). Dental services are identified as an unmet need and Tidewater veterans indicated higher interest in employment assistance services.

Tidewater veterans report higher levels of educational attainment with 78% having "some college" and a college/advanced degree. These veterans are more likely to be employed full-time (56%) than the average Virginia veteran. Tidewater veterans have the second highest ratio of female (14%), African American/black (35%) and higher income (60% annual income of \$50,000 or more) veterans.

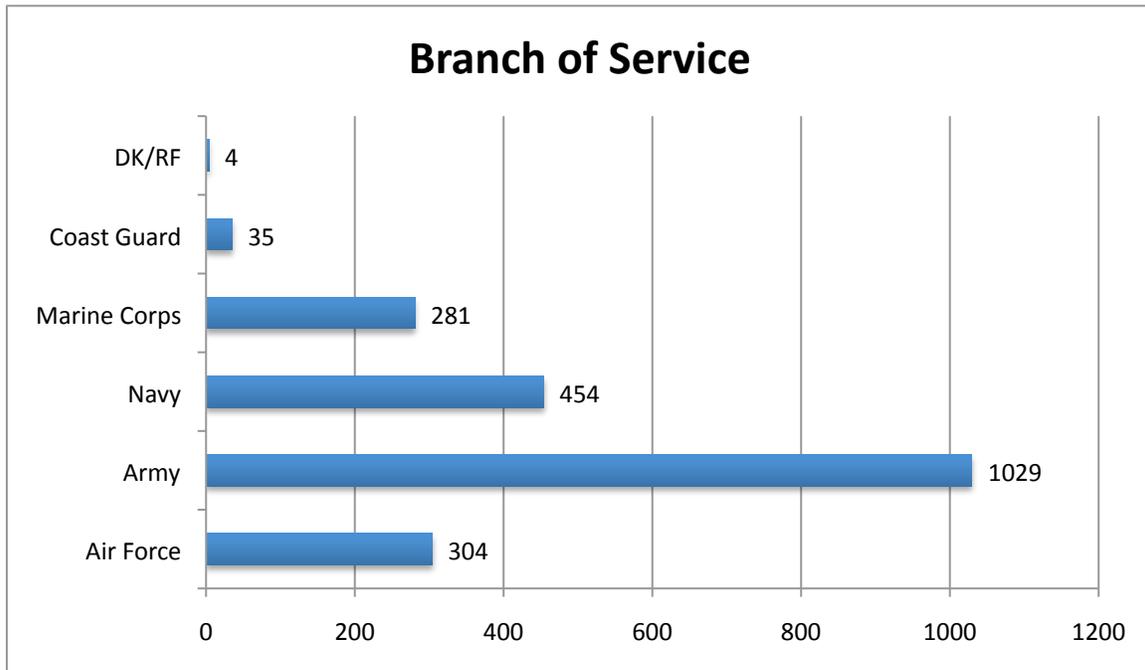
6. Cross Comparisons: The Northern and Tidewater regions have the highest percentage of respondents who are employed full time. The largest retired population is in the Southwest Region. The highest unemployment numbers were found in Southwest and Central regions.

There were few regional differences in housing arrangement by respondents. There are a few notable exceptions. The highest percentages of those that own their home are found in the Northwestern region (83.5%) and in the Tidewater regions (84.1%). The Northern Region had the highest percent of those renting their home at (17.4%). The highest percentage of respondents with children under the age of 18 was found in the Northern region (44.1%) and Tidewater (44.5%). The Northern Region also had the highest percent of those that had lived at their current address for less than five years (27.3%).

B. Branch of Service

Appendix 5 provides data by the **Branch of Service** of the respondents. Branch of Service was considered across five categories – Army, Air Force, Navy Marine Corps and Coast Guard. **Figure 3** represents the distribution of respondents by branch of service.

Figure 3



Army veterans represented the largest percent of responses to the survey and the highest percentage of respondents for each region except for Tidewater where as may be expected the highest number of veteran respondents are a Navy veteran. **Table 6** demonstrates the breakdown of survey respondents by branch.

Table 6
Percentage of Survey Respondents by Branch of Service
And Compared to National Rates

BRANCH OF SERVICE	US ⁵	Virginia	Tidewater	Central	Northern	Northwest	Southwest
Army	44	50.5	28.7	70.2	48.5	50.4	64.7
Air Force	18	14.9	18.4	12.3	19.7	12	14.7
Navy	23	22.3	48.3	10.7	18.1	17.5	11.7
Marine Corps	11	13.8	5.1	9.4	14.7	21.3	12.3
(NonDefense)	1	1.7	3	1	1.7	1.8	0.3

Branch of Service Significant Findings – The following provides highlights of significant finding based on branch of service. Additional highlights are outlined in **Appendix 12**.

1. Army – Represents the highest ratio of respondents and the highest level of National Guard and Reserves (38%). Army veteran respondents report higher levels of deployments to Korea (11%) and Vietnam (32%) and lower deployment levels to the Persian Gulf (6%). Sixteen percent of Army veterans report Iraq deployments (22% multiple deployments and 4% report Afghanistan deployments (13% multiple deployments).

Army veterans report lower “*life satisfaction*” especially regarding health, financial and employment issues. Army respondents had the lowest satisfaction with their “*current financial situation*” and one of the highest percentages of those that felt they had “*unmet financial care needs that could be addressed in the community.*” Army veterans have the highest levels of medium (17%) and high (14%) depression scores. Reported PTSD is 10% and service related head injury is 21%. Other health related problems include high blood pressure, diabetes, heart disease, arthritis and frequent headaches. Army veterans report the highest rates of “*never*” consuming alcohol (47%) and a higher rate of consuming “*more than 5 drinks on a single day*” (4%). Army veterans also report the highest rate of “*taking too much medication*” (8%).

Army veterans have higher utilization of the VA system and Medicare as insurance. Reported unmet needs include dental services, mental health and financial services. Army veterans have

⁵ Represents the population by branch of veterans nationally according the Veterans Administration. <http://www1.va.gov/vetdata> as of 6/24/10.

lower levels of education attainment and are more likely to be retired and not employed than the average Virginia veteran. Army veterans have larger ratios of African American/ black veterans and those over the age of 56. Army veterans have higher ratios of incarcerated veterans (13%) and the highest reporting of low and moderate-income levels (\$10,000-50,000).

2. Air Force – Air Force respondents report lower rates of National Guard and Reserve involvement (26%, compared to overall average of 32%). Air Force respondents report higher levels of deployment to “*other combat locations*” (24%) and never being deployed (36%). Ten percent of Air Force veterans report deployments to Iraq (26% multiple deployments) and 4% report deployment to Afghanistan (27% multiple deployments) and 39% of those deployed, deployed since 2004.

Air Force veterans report higher levels of “*life satisfaction*”, with the exception of financial assistance and the convenience of getting to VA system services. Air Force veterans report no indication of depression (48%) and low levels of depression (38%) and PTSD (3.6%). Sixteen percent report service related head injury. Air Force veterans have lower levels of tobacco consumption and higher levels of moderate alcohol consumption. Though Air Force veterans have a comparably low rate of mental health admissions (4%), this branch has the highest rate of multiple admissions (70%).

Air Force veterans have greater utilization of TRICARE for insurance and less utilization of the VA system. Though Air Force veterans report lower utilization of medical services than the average Virginia veteran, they indicate “*inability to get an appointment*” as a barrier to services.

Air Force veterans have higher educational attainment and ratio of female veterans than the average for all branches combined.

3. Navy - Navy respondents report lower rates of discharge from military service (79%) and National Guard and Reserves (25%). Navy respondents report higher levels of deployment to Bosnia (8%), Kosovo (4%), Persian Gulf (32%), Somalia (4%) and “*other combat locations*” (19%). Sixteen percent of Navy veterans report deployments to Iraq (45% multiple deployments), 6% report deployment to Afghanistan (24% multiple deployments) and 41% of those deployed, deployed since 2004.

Navy veterans report higher levels of “*life satisfaction*”, with the exception of the “*convenience of getting to VA system services.*” Navy veterans report no indication of depression (45%) and low levels of depression (37%), and PTSD (3.5%). Twenty-one percent report service related head

injury. Navy veterans have lower levels of tobacco consumption and average levels of moderate alcohol consumption.

Navy veterans have greater utilization of TRICARE for insurance and less utilization of the VA system. Navy veterans report average utilization of medical services and indicate, “*having to miss work*” as a barrier to accessing services.

Navy veterans have higher ratios of ages 36 – 55 years, higher educational attainment and income than the average veteran. Navy veterans had higher percentages of those earning \$100,000 or more.

4. Marine Corps – Marine Corps respondents report higher National Guard and Reserve involvement (34%) and deployments to Iraq and Somalia (4%). Marine Corps veterans have the highest rate of deployment to Iraq (24% with 38% multiple deployments) and 4% report deployment to Afghanistan (8% multiple deployments) and with 42% of those deployed, deployed since 2004.

Marine Corps veterans report average levels of “*life satisfaction*”, with the exception of “*unmet financial care needs that could be addressed in the community*,” “*ability to pay their bills*” and “*relationships with family members*.” Marine Corps veterans report the following depression ratings: (34%) and low levels of depression (40%), medium depression (12%) and high depression (15%). Marine Corps veterans also report the highest level of diagnosed PTSD (12%) of all the branches. Twenty-six percent report service related head injury. Marine Corps veterans have average levels of tobacco consumption and higher levels of moderate alcohol consumption.

Marine Corps veterans have the lowest level of reported medical service utilization, greater utilization of employer-based insurance and a slightly lower utilization of the VA system. Marine Corps veterans report the highest rate of “*unmet mental health care needs*” (11%).

Marine Corps veterans have higher ratios of ages 20 – 55 years, and are more likely to be employed full-time or not employed. Marine Corps veterans report higher levels of very low income (5% less than \$10,000) and high income (32% more than \$100,000).

5. Coast Guard – (*Note: Due to the small sample size there are fewer significant findings related to the Coast Guard branch.*) Thirty-one percent of Coast Guard respondents report National Guard and Reserve involvement and the lowest level of military discharge (60%).

Eighty-seven percent of respondents report never being deployed and 3% report deployment to Iraq.

Coast Guard veterans report average levels of “*life satisfaction*,” with the exception of the “*the availability of mental health services*” and “*convenience of VA system services*.” Coast Guard veterans report no indication of depression (40%), low levels of depression (40%), medium depression (14%), high depression (6%) and diagnosed PTSD (6%). Fourteen percent report service related head injury. Coast Guard veterans have higher rates of TRICARE as insurance, are most likely to be employed full-time (74%) and have higher ratios of African Americans/blacks (23%).

6. Cross Comparisons: Respondents who were in the Navy, Marine Corps and Coast Guard represented the highest percentages of those employed full time. The Marine Corps also had the largest percentage of those unemployed, indicating disparity of employment status. Fewer Marines are retired, employed part-time, or a homemaker than other groups. The largest percentages of retired respondents were from the Army and Air Force. The Army also had a high percentage of respondents that were unemployed.

The branches of service cohort analysis indicate that the Air Force veterans have the highest percentage of home ownership (86.2%) and Coast Guard veterans have the lowest (74.3%). Army veterans had the highest representation of renters (12.2%). The Army had the lowest representation of those that lived with others (84.4%) and the Air Force had the highest (90.5%). The Army had the lowest ratio of respondents with children under 18 (32.7%) and the Coast Guard had the highest (48.4%). The recent combat veterans had the lowest percentage of home ownership (77.1%) and the highest percentage of renters (15.2%). They also had the highest percentages of children under the age of 18 in the home.

7. National Guard and Reserves - In addition to Branch of Service, survey respondents were also asked if they served as National Guard or Reserves. Of all respondents, 32% reported being in the National Guard and Reserves. **Figure 4** demonstrates the branch of service with which the 32% that were in the National Guard and Reserves were affiliated.

Figure 4

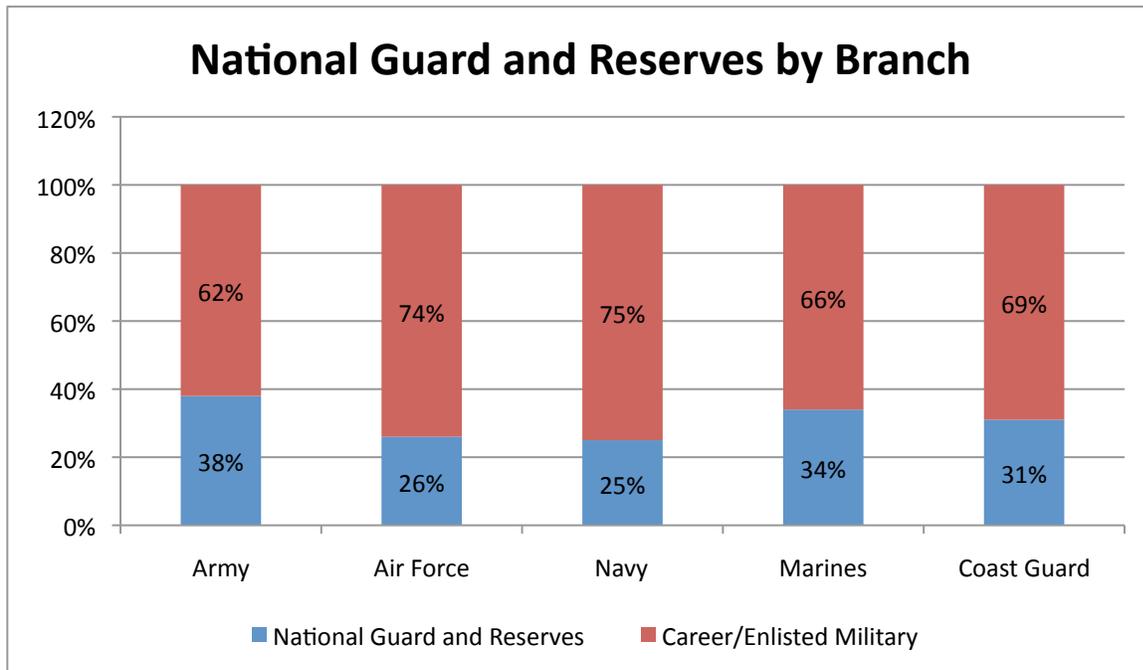


Table 7 provides information about statistically significant variations between National Guard/Reserve members compared to enlisted/career military. The survey analysis indicates that National Guard and Reserves have lower levels of satisfaction with the ability and convenience of receiving healthcare through the VA and CBOCs. National Guard and Reserves also were more dissatisfied with the services in their community. The analysis also indicates that a higher percentage of younger respondents had served as National Guard/Reserves. The survey supports that National Guard and Reserves are experiencing greater number and frequency of deployments and experience PTSD at higher rates when compared to enlisted/career respondents.

**Table 7
National Guards/Reserves Compared to Career Military**

Survey Question	Response	National Guard/Reserves	Enlisted/Career Military
Convenience of services from VA or CBOC*	Very Dissatisfied	10.5%	6.9%
	Somewhat Dissatisfied	9.0%	7.3%
	Somewhat Satisfied	14.1%	15.2%
	Very Satisfied	39.0%	44.8%
	DK/RF	27.5%	25.7%
Receiving Healthcare benefits from VA as result of injury**	Yes	40.2%	53.2%
	No	58.7%	45.8%
Deployed to Iraq/Afghanistan**	Yes	26.1%	13.8%
	No	73.9%	86.2%
Age**	<35	12.1%	8.1%
	36-45	13.4%	8.9%
	46-55	19.7%	23.5%
	56-65	26.8%	28.7%
	>65	28.1%	30.7%
Deployed Since 2004**	Yes	39.5%	60.5%
	No	29.1%	70.9%
Deployments to Iraq*	1	78.8%	61.7%
	2	16.0%	31.4%
	3	4.5%	5.7%
	5	0.6%	0.6%
	6	0.0%	0.6%
Experienced PTSD*	Yes	9.1%	6.8%
	No	90.9%	93.2%
Ratings of Services in Community **	Excellent	16.4%	18.1%
	Good	21.7%	25.2%
	Fair	9.6%	10.1%
	Poor	6.5%	5.8%
	DK/RF	45.8%	40.9%

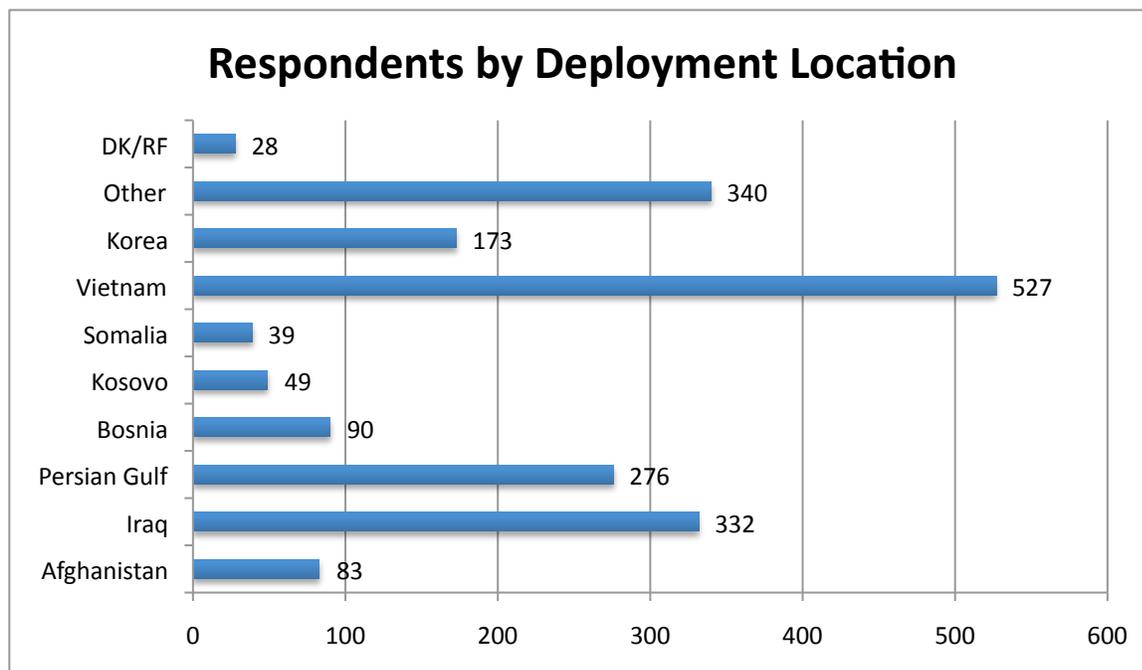
C. Deployments

Survey respondents were also asked to identify to which conflicts they had been deployed and how many times they had been deployed to each conflict. While the survey pool included all identified veterans residing in Virginia, the VWWP program is particularly interested in the experiences and needs of recent combat veterans so particular focus has been placed on those who have deployed since 2001. Additionally the VWWP is interested in veterans that were deployed since 2004, as this timeframe represents policy changes aimed toward improving services and engagement of OIF and OEF veterans. Survey data related to deployments is summarized in **Appendix 6**. Vietnam and peacetime veterans represented the highest number of survey respondents. However, OIF and OEF deployed veterans comprised a statistically significant number of the respondents (over 400 respondents). Additional highlights not included in this report are outlined in **Appendix 12**.

The age variations in responses become apparent across the deployment eras. The highest percentages of individuals indicating full-time employment come from those deployed in Iraq/Afghanistan and the Persian Gulf. The highest percentages of those retired were from the Vietnam combat era, which is representative of the fact that all Vietnam respondents were 56+. However, the unemployed numbers were consistent between conflict eras with an average of 11.4%. The lowest percentage of those unemployed came from those that were involved in other conflicts.

Deployment by conflict and region are summarized in **Figure 5**.

Figure 5



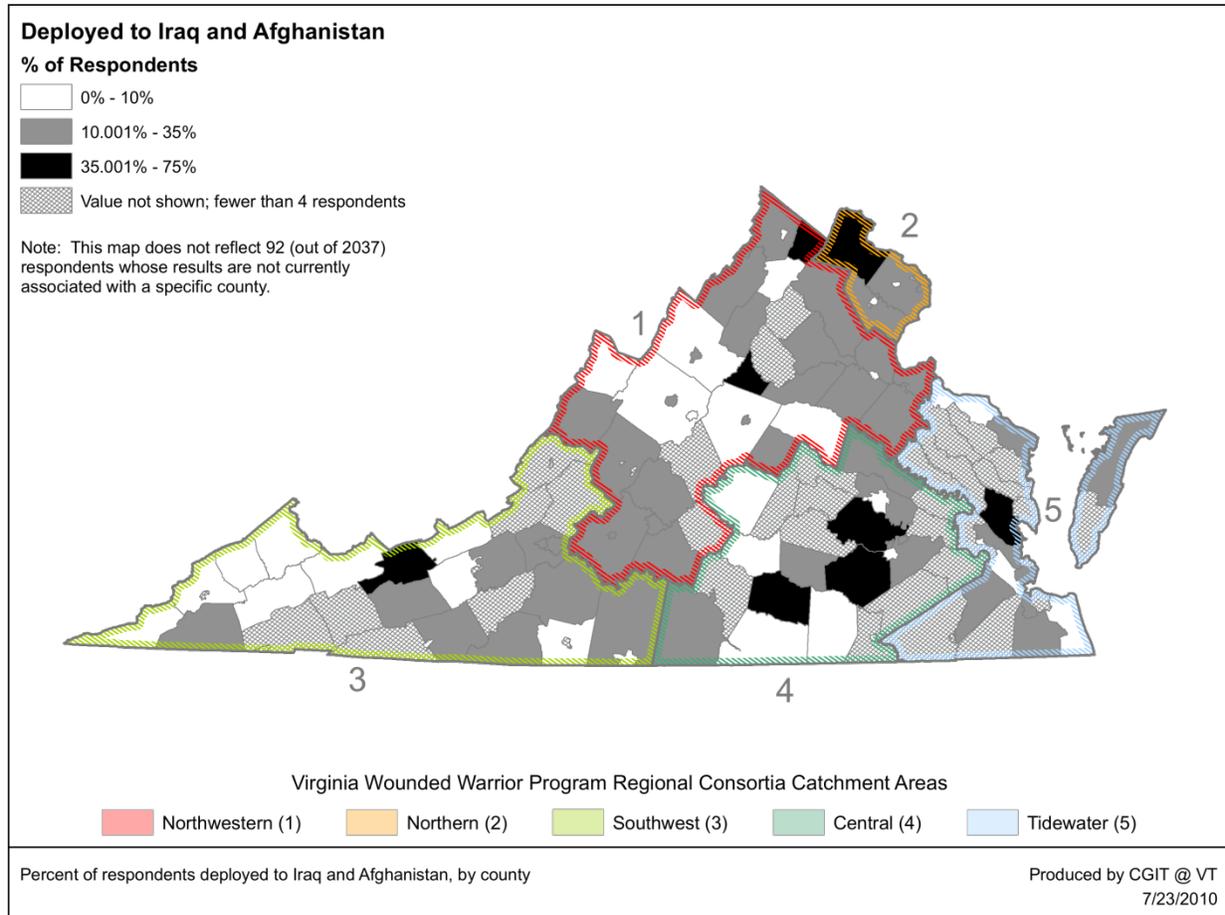
1. Iraq and/or Afghanistan – OIF/OEF veterans have higher rates of Marine Corps veterans (20%) and the highest rate of National Guard and Reserves (47%) of any deployment group. OIF/OEF veterans have higher levels of life satisfaction than other conflict veterans with the exception of “conveniently located medical providers,” and the “convenience of VA system services.” OIF/OEF veterans have slightly higher than average low and medium depression scores as represented in **Figure 7**.

OIF and OEF reported PTSD is 13%, the second highest of deployment cohorts, and service related head injury is the highest of any cohort at 26%. OIF/OEF veterans also report higher rates of moderate headache frequency, mild and moderate daily pain, higher caffeine consumption and higher levels of moderate and heavy alcohol consumption. These veterans reported the highest level (31%) of “consuming more than five drinks in a single day in the past month.”

OIF/OEF veterans reported higher levels of barriers to accessing health care services as appointment times conflicting with work (27%), childcare problems and “other” (33%). These veterans have higher rates of TRICARE and employer based insurance, lower rates of VA disability rating and disability claims filed. They report more familiarity with community based

veteran services (55%) and lower utilization of VA system services. OIF/OEF veterans have higher levels of educational attainment (57% college or advanced degree), full time employment (75%), not employed (12%), higher levels of income (particularly \$100,000 or more) and interest in employment assistance services. They also had higher satisfaction with their “*ability to pay their bills*” and with their “*financial situation.*” **Figure 6** shows the location of respondents that reported they had been deployed to Iraq or Afghanistan.

Figure 6



2. Deployed Since 2004- (Note: As this is largely a subset of the OIF/OEF veteran era only major differences are highlighted.)

Veterans deployed since 2004 have higher rates of Navy, Air Force and Marine Corps veterans and higher rates of National Guard and Reserves (40%) than those of other conflict eras. In addition to lower levels of satisfaction with “*conveniently located medical providers,*” and the “*convenience of VA system services,*” Veterans deployed since 2004 are less satisfied with current housing and local services for veterans. These veterans have depression scores that

are slightly lower and service related head injury rates (27%) that are slightly higher than OIF/OEF veterans as a whole.

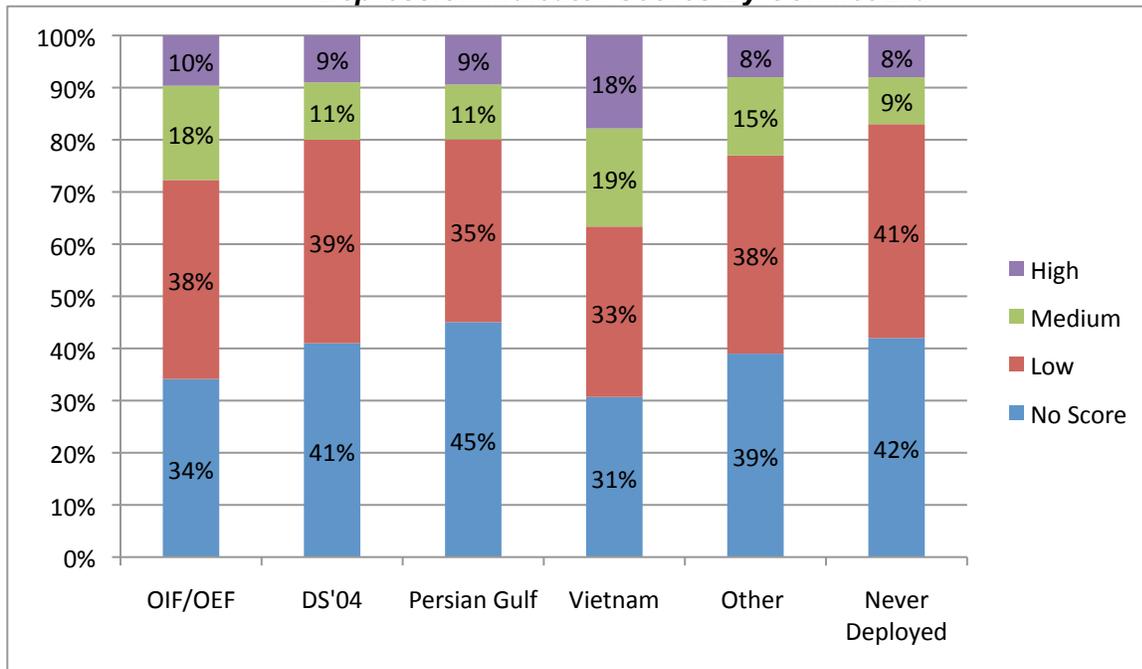
Veterans deployed since 2004 have slightly higher rates of incarceration (8%) and housing instability than the total OIF/OEF cohort. The “*deployed since 2004*” subset also contains a higher ratio of female veterans at 13%, compared to 8% for the entire OIF/OEF cohort.

3. Persian Gulf – Persian Gulf veterans have the highest rate of Navy veterans (53%) and the lowest rate of National Guard and Reserves (24%) of any conflict era. Persian Gulf veterans have the highest rate of being retired (65%).

Persian Gulf veterans have lower levels of life satisfaction in the areas of “*conveniently located medical providers,*” and the “*convenience of VA system services.*” Persian Gulf veterans have lower than average depression scores as indicated in **Figure 7**, lower self reported PTSD (6.2%) and higher service related head injury rates at 25% compared to the average veteran rate of 20%. While these veterans appear to have an average level of medical diagnosis, they have higher rates of headache frequency and “*pain that lasted a month or more during the past year*” (50%). Persian Gulf veterans have higher rates of caffeine consumption and higher levels of moderate and heavy alcohol consumption.

Persian Gulf veterans reported higher levels of barriers to accessing health care services because appointment times conflict with their work schedule (27%). These veterans have the highest rates of TRICARE, higher rates of VA disability rating and disability claims filed. They report more familiarity with community based veteran services (56%) and lower utilization of VA system services. Persian Gulf veterans have higher levels of educational attainment (57% college or advanced degree), full time employment (73%), not employed (11%), and the highest levels of income.

Figure 7
Depression Indicator Scores By Conflict Era



4. Vietnam - Vietnam veterans have the highest rate of Army veterans (62%) and a lower rate of National Guard and Reserves (28%) compared to other conflict eras. Vietnam veterans have a higher rate of being retired (61%) and highest rate of being discharged from military service (91%).

Vietnam veterans have lower levels of life satisfaction in the areas of overall health, cost of medical care, dental care, and relationships with non-military community members, and employment. Vietnam veterans have the highest depression indicator scores as demonstrated in **Figure 7**, the highest rate of reported PTSD (16%) and higher service related head injury rates at 24% compared to the average veteran rate of 20%. Vietnam veterans have the highest level of reported medical diagnosis, including high blood pressure, diabetes, heart disease and, arthritis. Vietnam veterans report the highest level of “*never drinking*” and higher levels of heavy alcohol consumption. These veterans also reported the highest level of substance abuse diagnosis.

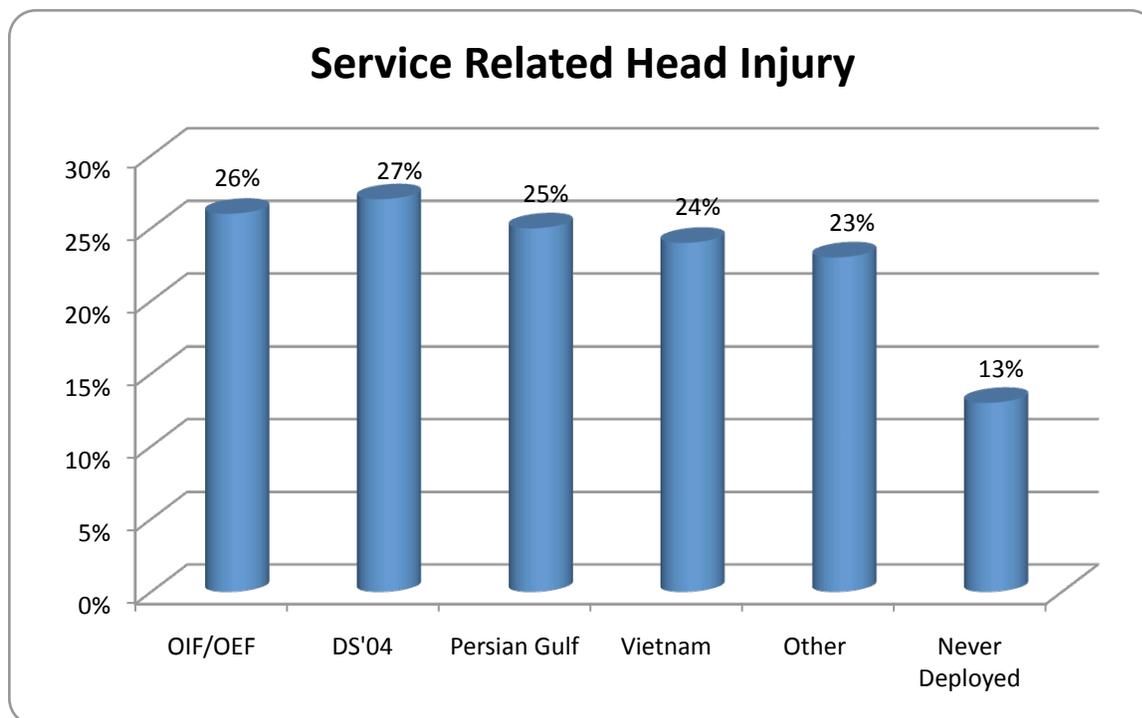
Vietnam veterans reported higher levels of barriers to accessing health care services including transportation (20%), not being able to get an appointment (29%) and affordability (25%). These veterans have the highest rates of VA and Medicare as insurance, highest rate of VA disability

rating (77%) and disability claims filed (85%). They report more familiarity with community based veteran services (54%) and the highest utilization of VA system services. Vietnam veterans have the lowest levels of educational attainment (30% college or advanced degree), full time employment (18%), lower levels of income (high representation in the \$10,000-50,000 range) and the highest ratio of veterans' age 56 and older.

5. Never Deployed – Veterans who were never deployed have higher rates of affiliation with Air Force (18%) and Coast Guard (5%) an average rate of National Guard and Reserves (33%) and the highest rate of “*no longer in service but not retired*” (47%). Never deployed veterans have higher levels of life satisfaction with the exception of “*relationships with other veterans*” which is the lowest of all deployment classifications at 90%. Never deployed veterans have the lowest depression indicator scores as demonstrated in **Figure 7** the lowest rate self reported PTSD (2%) and service related head injury rates at 14% compared to the average veteran rate of 20%. Never deployed veterans have lower levels of reported medical diagnosis and average lower levels of tobacco, caffeine and alcohol consumption.

Never deployed veterans reported lower levels of barriers to accessing health care services as these veterans have the highest rates employer based insurance. They have the lowest rate of VA disability rating (46%) and disability claims filed (58%). Never deployed veterans have average levels of educational attainment (35% college or advanced degree) and higher levels of low and moderate income. These veterans have higher rates of incarceration, homelessness and admissions for mental health treatment than the average of all deployment cohorts. This group also was the most dissatisfied with their “*ability to pay their bills*” and their “*current financial situation.*”

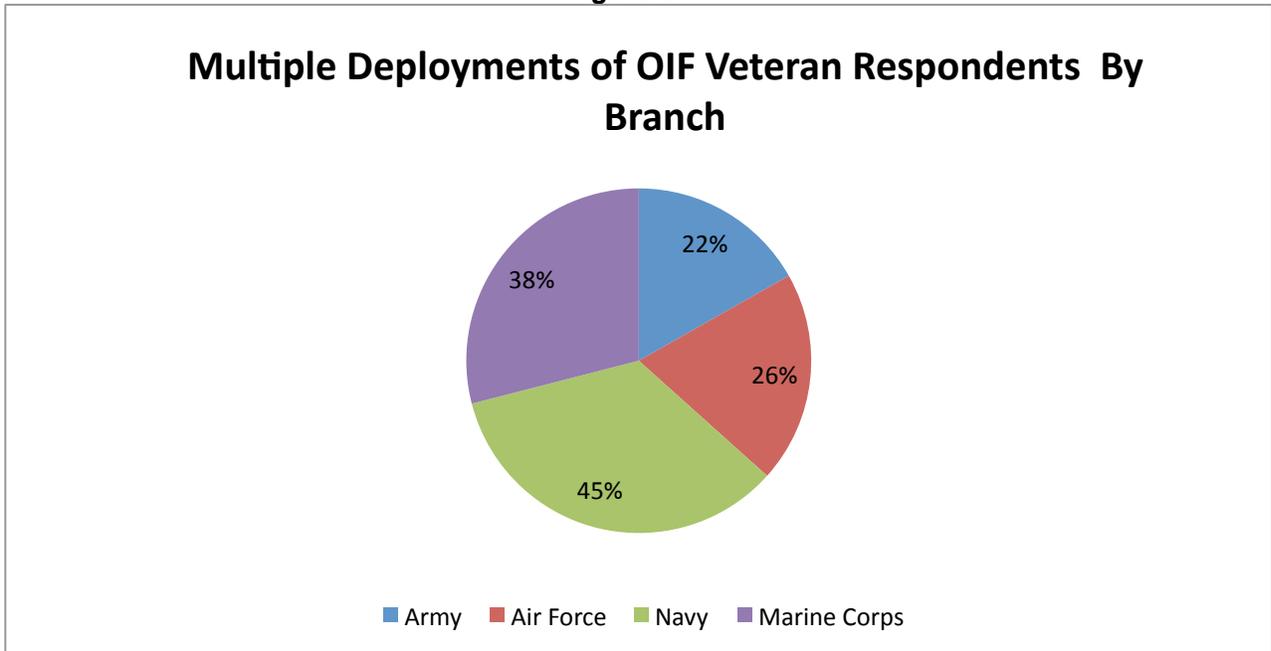
Figure 8
Service Related Head Injury by Deployment Location



Of those deployed since 2004, 38.2% were in the Army and 28.5% were in the Navy. Also, 47.4% of those in the National Guard or Reserves had served in Iraq/Afghanistan, which was more than 17% higher than any other conflict.

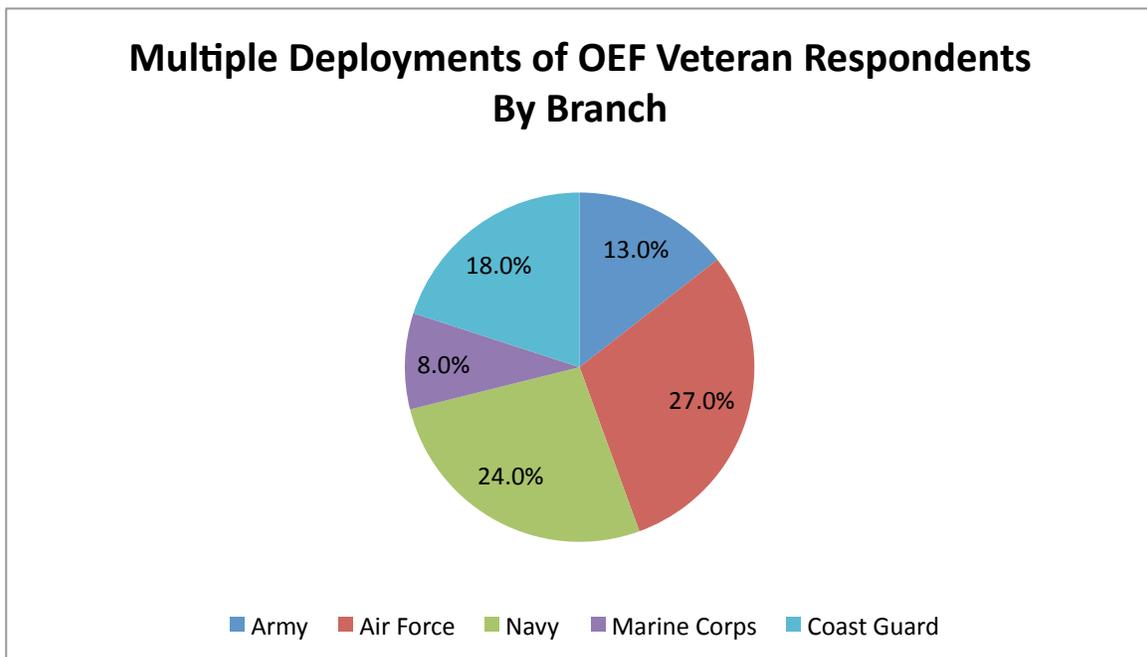
5. Multiple Deployments - Statewide, 30.4% of those deployed to Iraq and 18.1% deployed to Afghanistan had more than one deployment. Of the respondents who had been on multiple deployments, those in the Navy had the highest number of multiple deployments to, first, the Persian Gulf at 59.4% and, second, to Iraq at 44.6%. The Army respondents had the highest percentage of multiple deployments to Korea (23%) and Iraq (22%). The Air Force had the highest percentage of multiple deployments in the Persian Gulf Conflict (54.3%) and Bosnia (37.5%). The Marine Corps had the highest percentage of multiple deployments to Korea (58.8%) and Iraq (38.2%). **Figure 9** and **Figure 10** represents OIF and OEF deployments by branch of service.

Figure 9



Deployment cohorts indicate that men had a higher percentage of deployment than women with the exception of the Persian Gulf. Only 28.7% of males surveyed reported never being deployed compared to 54.7% of female respondents. Of the women that were deployed, multiple deployments occurred to Iraq, Afghanistan, and Bosnia.

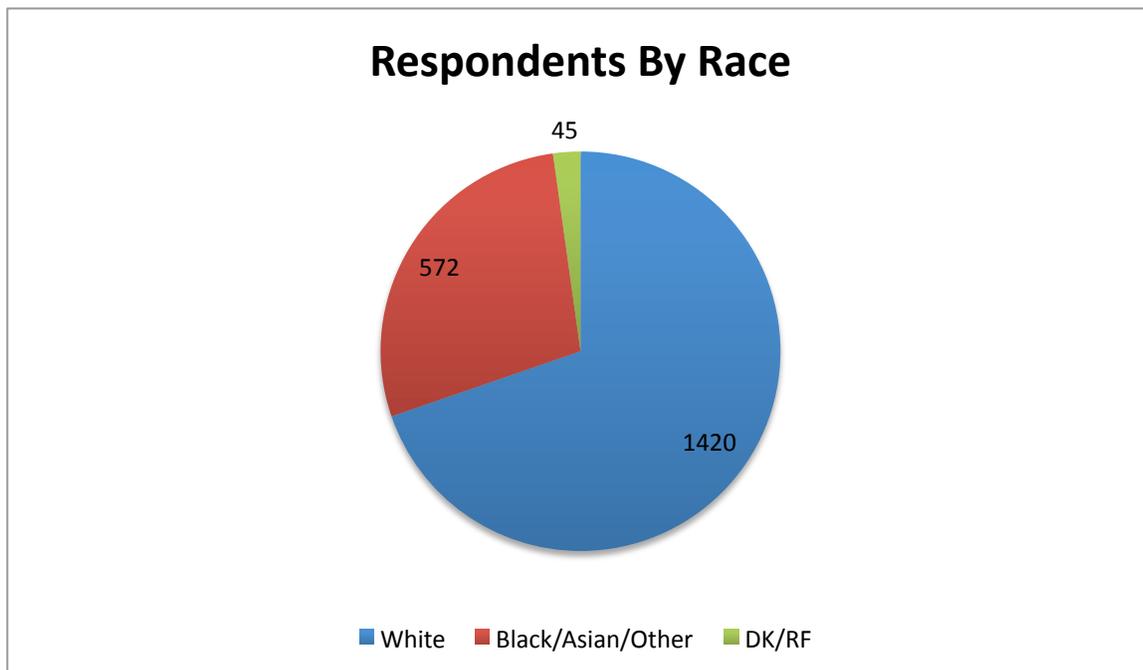
Figure 10



D. Race

Appendix 7 provides the survey summary statistics based on the **Race** of the respondent. The two comparison variables were white veterans and minority veterans, which include African American/Black/Asian/Other Race. Because of the small number of responses in a few of the minority race categories, the variables were incorporated to provide statistically valid results based on these categories. Response rates by race are demonstrated in **Figure 11**. Additional highlights not included in this report are outlined in **Appendix 12**. Race in armed service is particularly important because they represent a large percentage of service members. Bakker and Gill (2003) show that 22% of all enlisted personnel are Black, while only 12.7% of the general population the same age are black. Baker and Gill also report that 40% of all enlisted personnel are from minority groups.

Figure 11



The Northwestern and Southwest regions had the highest percentages of respondents who identified as white. The largest percentages of minority groups were found in the Central and Tidewater region. The branch of service data also shows that the respondents who were in the Air Force and Navy had the highest percentage of white respondents. Blacks/African Americans had the highest percentage of respondents in the Army, Marine Corps, and Coast Guard.

White veterans served in higher rates in the Air Force and Navy, while minority veterans are more likely to have served in the Army. There was little racial variance in the deployments, with the exception of multiple deployments - a higher percentage of minority groups experienced multiple deployments to Iraq, Afghanistan, Kosovo, Persian Gulf and Korea.

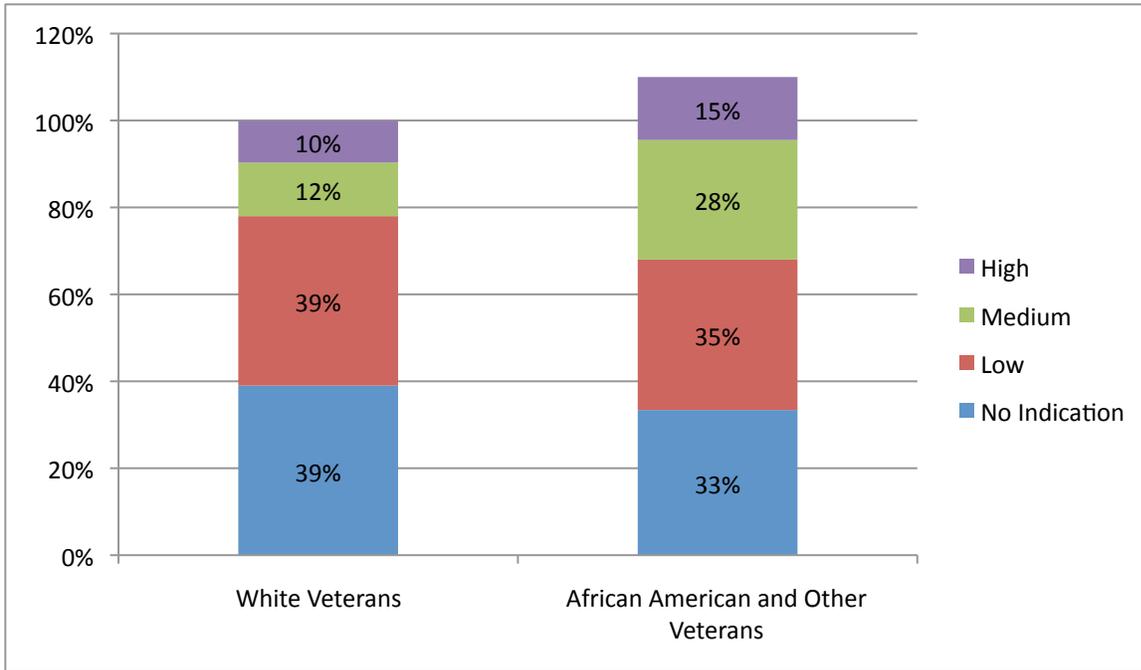
The survey indicates that white veterans have higher levels of life satisfaction with minority veterans having lower rates of satisfaction with overall health, ability to pay bills. At the same time, white respondents were 10% more likely to report satisfaction with their *“financial situation”* and 12% more likely to report satisfaction with their *“ability to pay their bills,” “cost and quality of medical care,” “availability of dental care,” “relationships with family and friends,” “employment situation,” “financial situation,” “housing situation” and “access to convenient transportation.”* White respondents had lower levels of satisfaction with mental health services, financial assistance, relationships with other veterans, convenience of VA system services and services for veterans. Minority Respondents were also more likely to report that they never consumed alcohol. However, for those that consumed alcohol, minority respondents had a higher percentage that drank more than once a day.

Minority veterans had higher levels of medium and high depression indicators, higher rates of PTSD (9%), high blood pressure (18%), sleep problems (8%) and headache frequency (20% with occurrence of a few times a week or more often).

White respondents had a slightly higher percent of low educational attainment than minority respondents. Minority respondents indicated a higher percentage of some college credit / college degree. White respondents, however, had a higher percentage of individuals with advanced degrees when compared to minority groups with advanced degrees.

Minority respondents had lower rates of marriage, higher rates of divorce and higher rates of never being married. Higher ratios of minority respondents are employed than are white respondents and also represent a higher percentage of those unemployed, 14.9% compared to 10.1% for white respondents, which correlates with a higher percentage of white respondents reporting retired status. Race also provides significant differences in housing arrangements. Minority respondents report lower levels of home ownership (74.6%) compared to white respondents (85.5%) and a corresponding higher percentage of renters (19.4%) compared to 8% for white respondents.

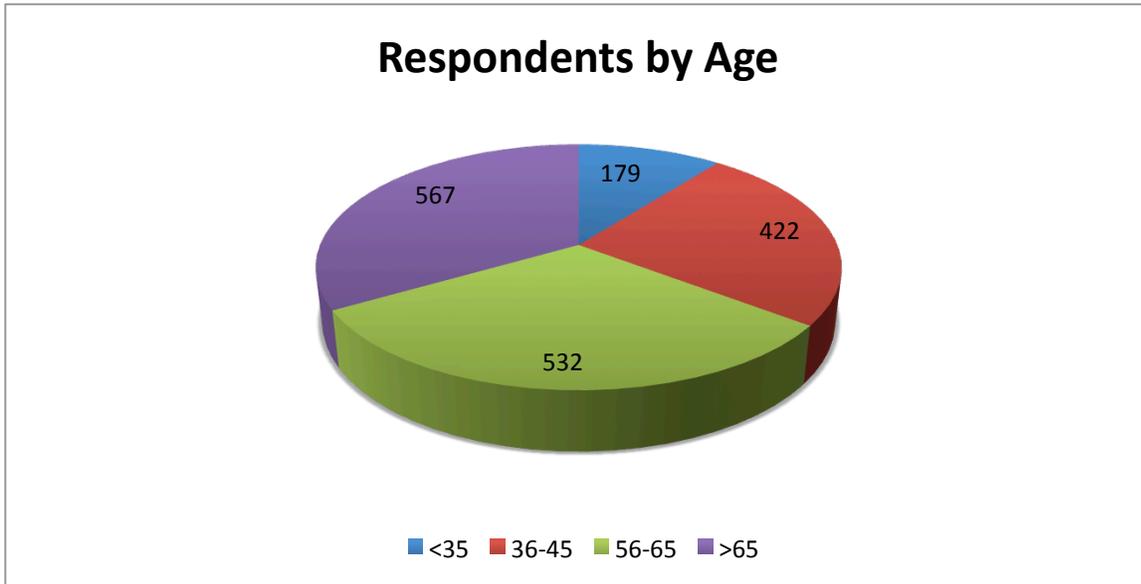
Figure 12
Depression Indicator Scores By Race



E. Age

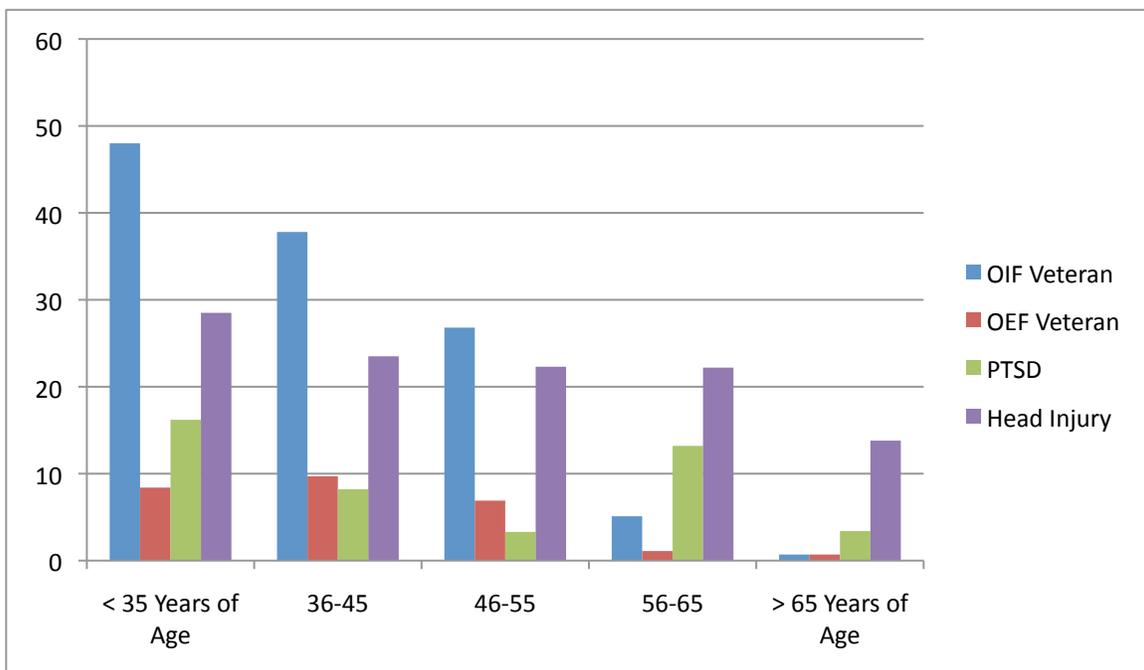
Age is another independent variable that has been reviewed to examine the characteristics of those veterans who are most likely to be younger combat veterans. **Appendix 8** provides data about survey respondents based on **Age**. This provides information about variances in survey responses based on five age categories of <35, 36-45, 46-55, 55-65, and >65. Additional highlights not included in this report are outlined in **Appendix 12**. The distribution of survey respondents by age grouping is illustrated in **Figure 13**.

Figure 13



Analysis by age group indicates that the National Guard and Reserves have a higher ratio of veterans age 45 and younger. Younger veterans (age 45 and younger) have higher Marine Corps and Navy affiliation. OIF/OEF veterans are also comprised of the younger age groups at higher rates as demonstrated in **Figure 14**.

Figure 14
Age Groups Compared to Frequency of PTSD, Head Injury, OIF & OEF



The youngest veterans (age 35 and younger) and older veterans (age 56 – 65) have higher rates of medium and high depression scores than the other age groups and higher rates of PTSD (16% and 13% respectively). The youngest group also reports the highest rate of head injury (29%).

Data regressed by the respondent's age reveals that there is a large reduction in the frequency of respondents who work full time once respondents reach the 55+ age group. The retirement numbers are significant for the oldest two age ranges: 80.4% of 65+ and 36.7% of 55-65 are retired. The highest two age groups for unemployment were the <35 and the 55-65 age groups.

Respondents age 46-65 were the most likely to report being satisfied with their "*current financial situation*." Respondents age 46-66 and 65+ were the most satisfied with their "*ability to pay their bills*." Those less than 35 were the most likely to report being satisfied with the "*availability of financial assistance in their community*." Respondents ages 56-65 were the most likely to report having unmet financial care needs that could be addressed with additional services in the community. Respondents age 36-55 were the mostly likely to earn between \$25,000 and \$100,000 per year. Respondents less than 35 were the most likely to earn more than \$100,000.

Older Respondents were more likely to be homeowners than younger respondents. There is a dip in homeownership in the 56-65 age group - moving from 88.9% to 83.5% and increased in the 65+ to 89.6%. Only 43.6% of respondents under the age of 35 owned their own home. The age group with the highest percentage of children under 18 was 36-45 (82.1%).

F. Sex

Of the total respondents 160 were female and 1,877 were male resulting in a +/- 7.74 confidence interval for female veterans, and a +/- 2.26 confidence interval for male veterans. In Virginia and Nationally the portion of veterans who are female is increasing. **Table 8** provides a summary of the projected trend of female to male veterans from September 30, 2010 to September 30, 2030 by age cohort. **Appendix 9** provides detailed analysis based on sex. Additional highlights not included in this report are outlined in **Appendix 12**.

**Table 8
Veteran Population Estimates by Sex and Age Group**

2010 Population Estimate		< 35 Years of Age	35-44	45-54	55-64	> 64 Years of Age	Total
Virginia	Female	18,891	21,102	28,699	14,220	9,123	92,036
	Male	72,311	95,644	147,346	171,735	243,241	730,277
	Total	91,202	116,746	176,045	185,955	252,364	822,312
	% Female	20.7%	18.1%	16.3%	7.6%	3.6%	11.2%
	% Male	79.3%	81.9%	83.7%	92.4%	96.4%	88.8%
U.S.	Female	350,853	376,441	498,927	312,531	301,628	1,840,380
	Male	1,613,266	2,107,518	3,213,189	5,019,139	8,864,653	20,817,765
	Total	1,964,119	2,483,959	3,712,116	5,331,670	9,166,281	22,658,145
	% Female	17.9%	15.2%	13.4%	5.9%	3.3%	8.1%
	% Male	82.1%	84.8%	86.6%	94.1%	96.7%	91.9%

In Virginia the estimated number of female veterans for 2010 is 92,000 or 11% of the total veteran population. Nationally this rate is currently estimated at 8% of the veteran population. The veteran population estimates indicate the ratio of female veterans in Virginia is expected to increase by 26% to 115,915 by 2030 and will increase at a faster rate than the national ratio of female/male veterans.

Higher ratios of female veterans are Air Force and Navy than their male counterparts and a slightly smaller ratio are National Guard and Reserves. Females have been deployed to the Persian Gulf at 17%, Iraq at 16% and Afghanistan at 3%. Female respondents have been deployed at a higher rate than men since 2004, 55%, compared to 31%. The largest ratio of female veterans was never deployed (55%). In the category of life satisfaction females have lower satisfaction with the cost and quality of medical care, current employment situation, the convenience of accessing VA system services and convenience of transportation.

Females had fewer reported health problems than males with the exception of head injuries/migraines, frequent headaches and hearing loss. Ten percent of females compared to 3.7% for males had a diagnosis of head injuries/migraines and also reported frequent headaches (25% of females report daily or multiple weekly headaches compared to 15% of men). Females have higher rates of moderate caffeine and alcohol consumption but males have higher rates of heavy caffeine and alcohol consumption. This was evidenced in the statistic that 3.5% of males reported drinking more than once a day compared to less than one percent of females and also 22.6% of men reported they had “*consumed more than five drinks in a single day in the last month*” compared to 9.8% of women. Females also have higher rates of “*wanting to see a medical provider but unable to see a doctor*” due to could not get an appointment (30%), could not afford it (35%) and scheduling barriers (19%). Males have higher utilization of VA system services (49%) compared to females (35%), while females have higher utilization of TRICARE (60%) than males (42%). Males have higher utilization of employer based (39%) and Medicare (29%) insurance. Females report a higher rate of VA disability rating (69%).

Female veterans have higher educational attainment with 57% having a college or advance degree, higher full time employment rates (53%) and higher not employed ratios (16%). Females show a significant higher interest in employment assistance. Also of note female veterans have significantly higher rates of divorce (24% compared to 12% for males) and never married (12% compared to 6.3% for males), have higher ratios of those age 55 and younger and higher numbers of African American/black veterans (44% compared to 20% for males). Bakker and Gill (2003), support this finding reporting that half of all enlisted women are black and 38% percent are white. This also shows that 62% of all enlisted females are from minority groups. Female veteran have higher rates of homelessness (12%) and food insecurity (16%) and the highest level of income (32% at \$100,000 or more annual income).

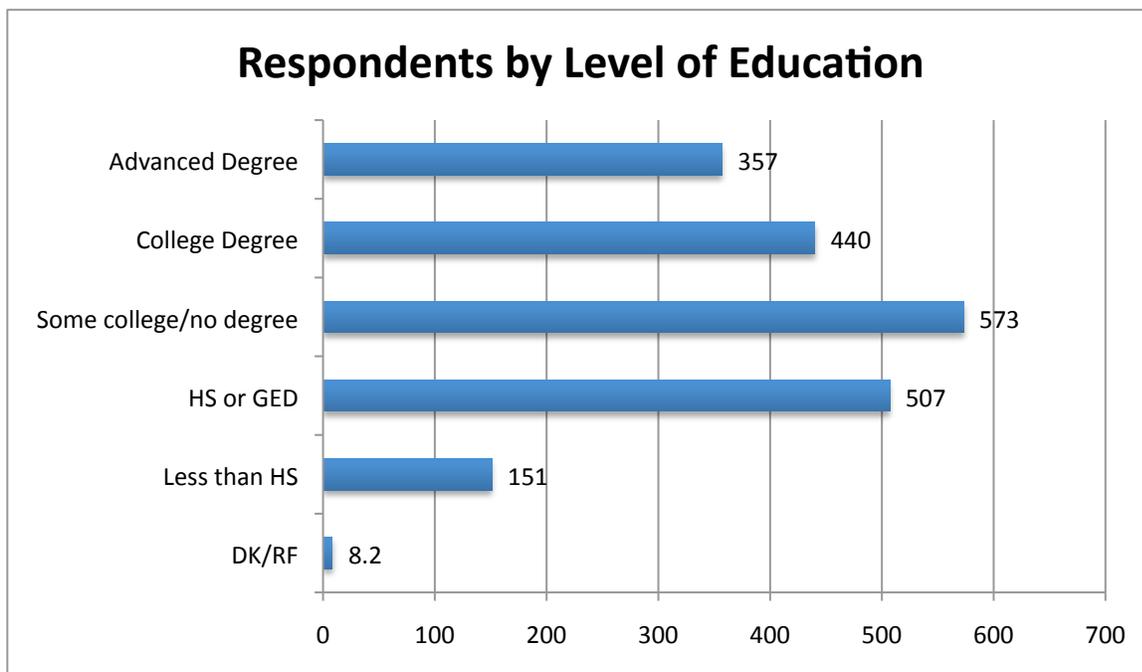
Women were slightly more satisfied with their “*current financial situation*” overall but were less likely to report being satisfied with their “*ability to pay their bills each month.*” Women were also more likely satisfied with the “*financial assistance programs in the community,*” however were more likely to report having “*unmet financial service needs that could be met with additional services in the community.*”

Males have a significantly higher rate of home ownership (83% compared to 69.6% of female respondents). A higher percentage of female respondents have children (60%), compared to men (34.8%).

G. Education

Appendix 10 summarizes the data based on **Educational** attainment level of the respondents. This data is divided by less than high school degree, high school degree or GED, some college but no degree, college degree, and advanced degree. **Figure 15** provides a breakdown of respondents by educational attainment level. Additional highlights not included in this report are outlined in **Appendix 12**.

Figure 15



The Southwest region has lower levels of educational attainment with 52.7% of Southwest respondents reporting a high school diploma or less - 13.4% higher than any other region in the State. The Tidewater region has the highest percent of individuals who have some college credit or a college degree. The Northern region has the highest percentage of respondents reporting advanced degree (45.7%) recipients.

Air Force veterans had the highest percentage of higher educational attainment with 81.9% reporting some college credit, college degree or an advanced degree. The Navy and Marine Corps both followed at 72.7% and 72.9% respectively. Army and Coast Guard veterans

reported the lowest levels of educational attainment with 60% of Army and 69% of Coast Guard reporting some college credit, college degree or an advanced degree.

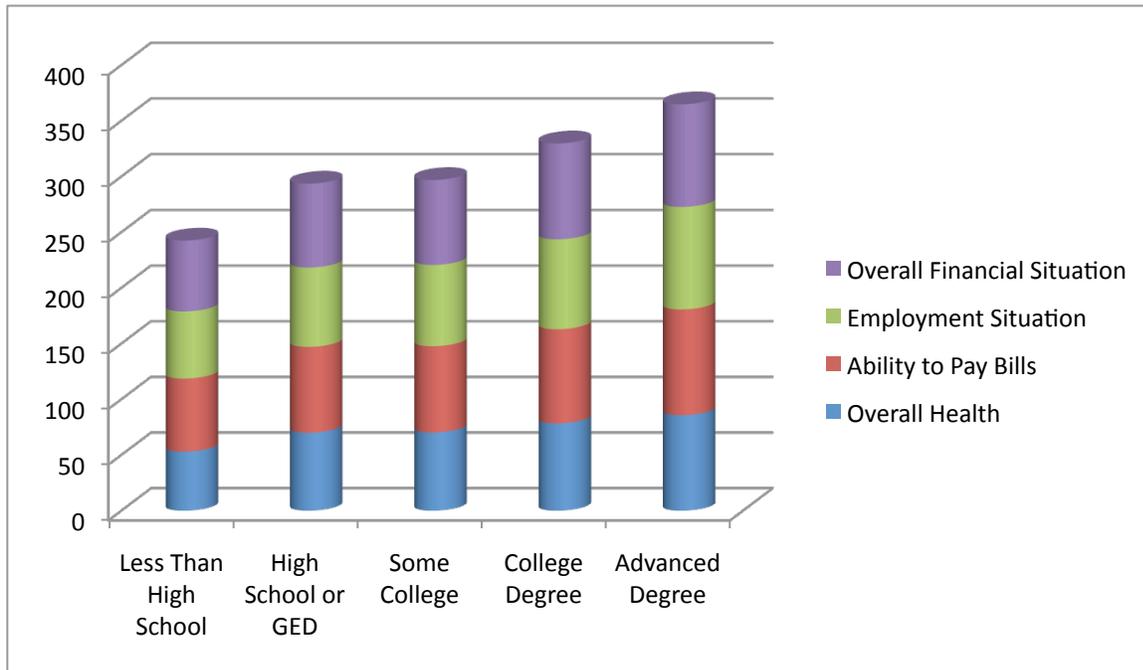
There is also a pronounced difference between men and women veterans with regard to education. No female respondent had less than a high school education. Compared to men, women also had higher percentages of attending college and holding college degrees and advanced degrees. Education also correlates with marital status, for instance 91.3% of respondents who hold an advanced degree are married. Those with less than a high school degree had a high percentage of being widowed or divorced/separated (33%).

Higher levels of education seem to be a protective factor for many medical conditions. The notable differences are chronic back pain/injuries, arthritis, PTSD, which are higher for respondents with some college or college degree. Sleep apnea/sleep problems increased as educational level increased (9.5% for Advanced degree).

High levels of alcohol consumption, drinking more than once a day and five drinks in one day, decreased with education and income. GED/HS degree had the highest percentage of those that consumed alcohol more than once a day. However, those with higher education and income were less likely to report never drinking. This shows that those with higher levels of income and education drank but not as excessively as those with lower levels. This was evidenced by the question that asked if they consumed more than five drinks in a single day in the past month because percentages decreased slightly as education/income increased. Also those at the lowest income/education level had the highest percentage of being diagnosed or told they had a substance abuse problem.

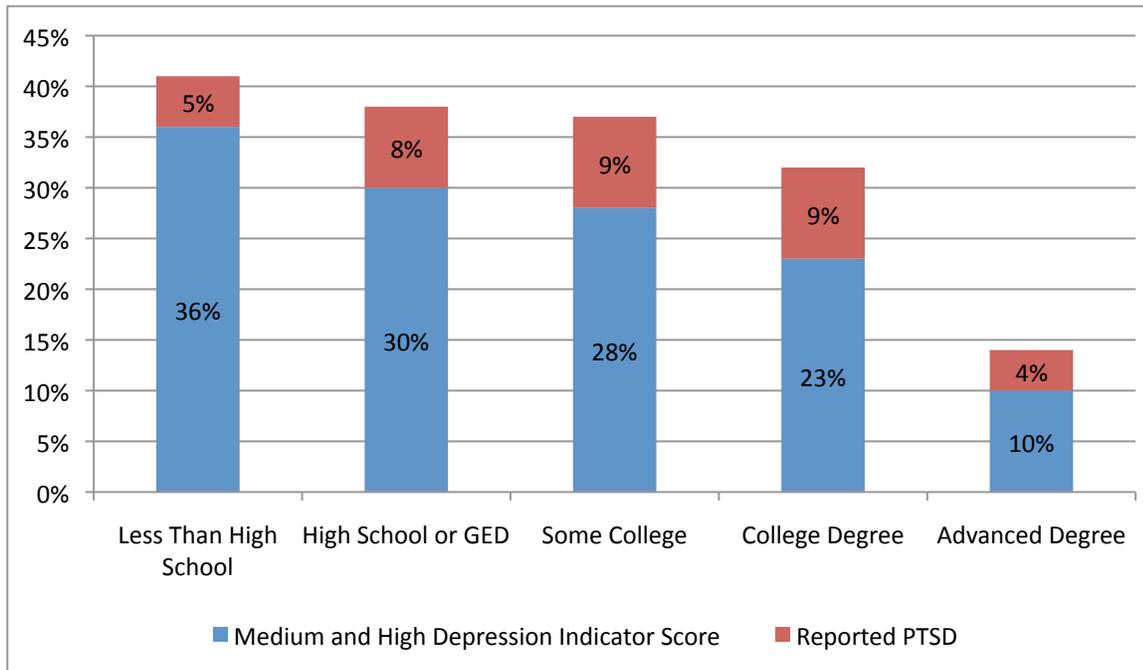
The survey data reveals a direct correlation between educational attainment and life satisfaction and health indicators. **Figure 16** shows how measures of life satisfaction increase as educational attainment increase.

Figure 16
Education and Responses to Finance Questions



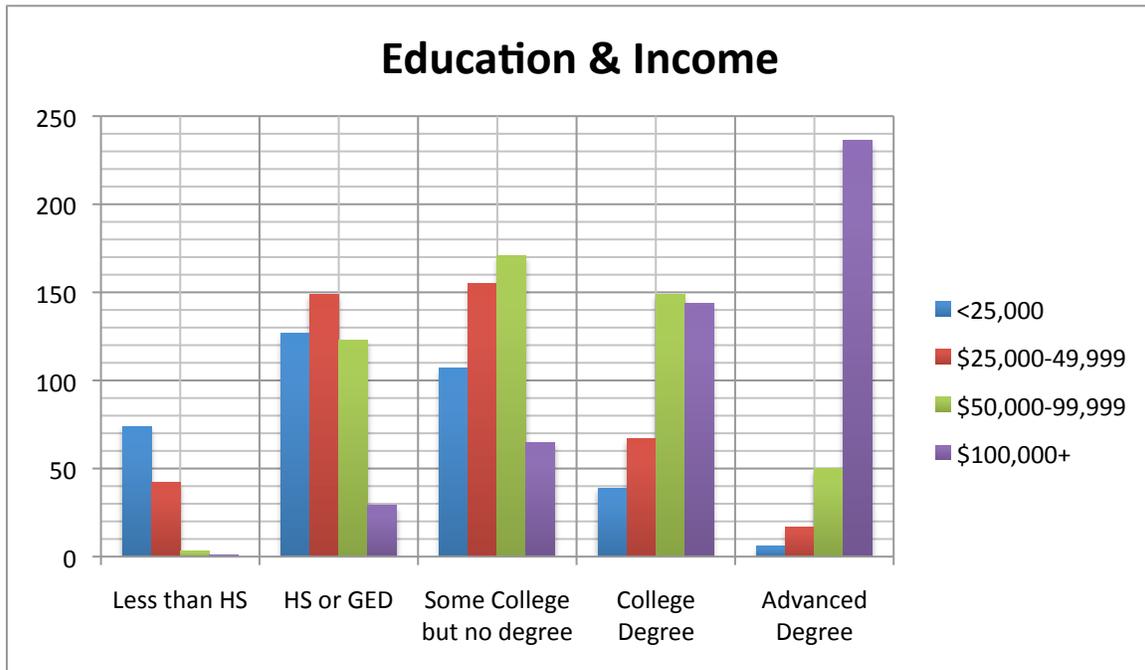
Depression indicator scores decrease as educational attainment increase (**Figure 17**). However reported PTSD has a different result – increasing as educational levels increase to “*some college*” and dropping dramatically for “*advance degree*.”

Figure 17
Education and Depression Score



Income also correlates closely with education levels: 56.8% of respondents who earned less than \$25,000 per year had a HS/GED or less education. In the \$25,000-\$49,999 a year range, the highest percentage (36%) had some college credit. At the \$50,000-\$99,999 a year range, 64.5% had some college credit or were college graduates. **Figure 18** shows the effect of education level on income.

Figure 18



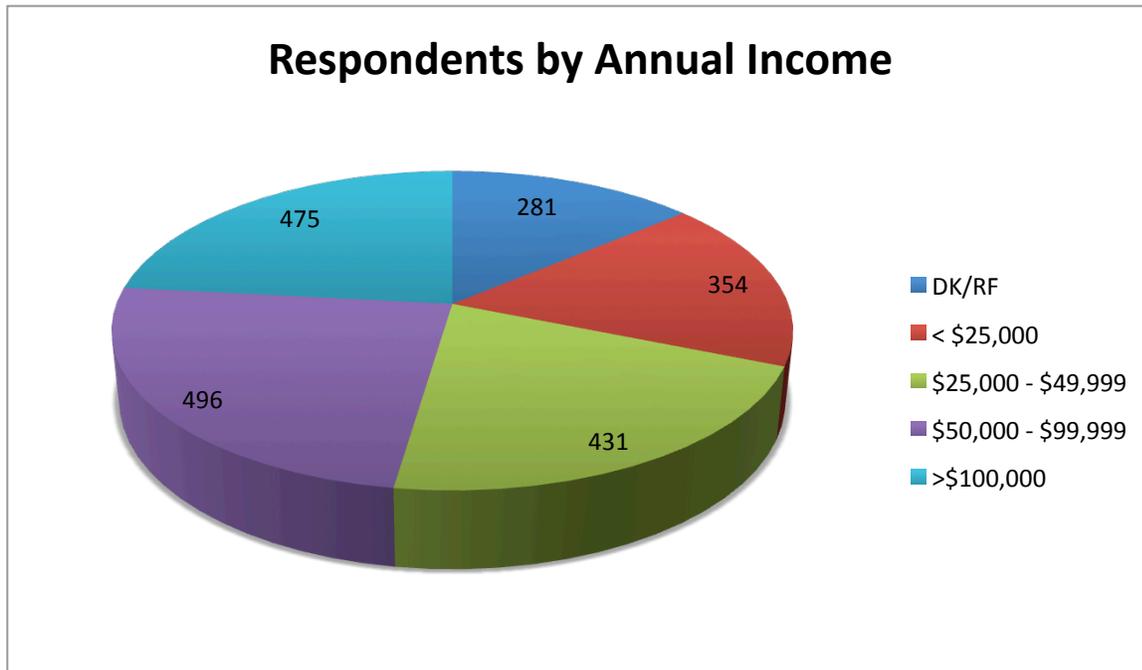
The highest levels of education had the highest percentages of children under 18. They also were the most likely to own their own home. 94.1% of those with advanced degrees and 86.4% of those with a college degree owned their own home. The highest percent of those that rented were those that had some college but no degree (15.4%).

H. Income

Appendix 11 provides a summary of the survey responses based on income. Respondents were categorized as earning <\$25,000, \$25,000-\$49,999, \$50,000-\$99,999 and \$100,000+. The distribution of survey respondents based on annual income is summarized in **Figure 19**.

Additional highlights not included in this report are outlined in **Appendix 12**.

Figure 19



The lowest income level is most associated with Army and Marine Corps veterans. Higher rates of income (over \$50,000) are reported by Navy and Marine Corps veterans. OIF and OEF veterans report higher rates of income. Lower income levels report lower levels of life satisfaction than higher income veterans. Lower income veterans report higher rates of medium and high depression scores and PTSD. Higher income levels report higher levels of service related head injury. Income also seemed to be a protective factor for medical conditions. The exceptions were chronic back pain, arthritis, sleep apnea and hearing loss. These were areas that were consistent across education or that increased slightly. This could be explained by the access to medical insurance and medical care that are associated with higher levels of income. Higher income levels report the highest levels of caffeine consumption and higher levels of moderate alcohol consumption. The lowest income level reports the highest level of heavy alcohol consumption and substance abuse diagnosis. Lower income veterans have higher utilization rates of VA system services. Marriage rates are higher with increased income levels - 83.9% of those in the \$50,000-\$99,999 and 92% of those that earned 100,000+ reported being married. Approximately 29% of those who earn less than \$25,000 reported that they were divorced or separated.

Age also produced some important results related to income. Of those that earned less than \$25,000 per year 75.9% were ages 55+. Also, 46.5% of those that were retired earned less

than \$25,000 per year. The other group that had more than 10% in this income bracket was the unemployed (21.6%). The retirement/age information reveals that older respondents earned less annually than other veteran groups.

As income increased so did the likelihood of owning a home. The likelihood of having a child under the age of 18 increased also with income. Controlling for income, the highest two levels of income had the highest percentage of full time employment. The highest percentages of respondents who were retired were in the lower two income ranges.

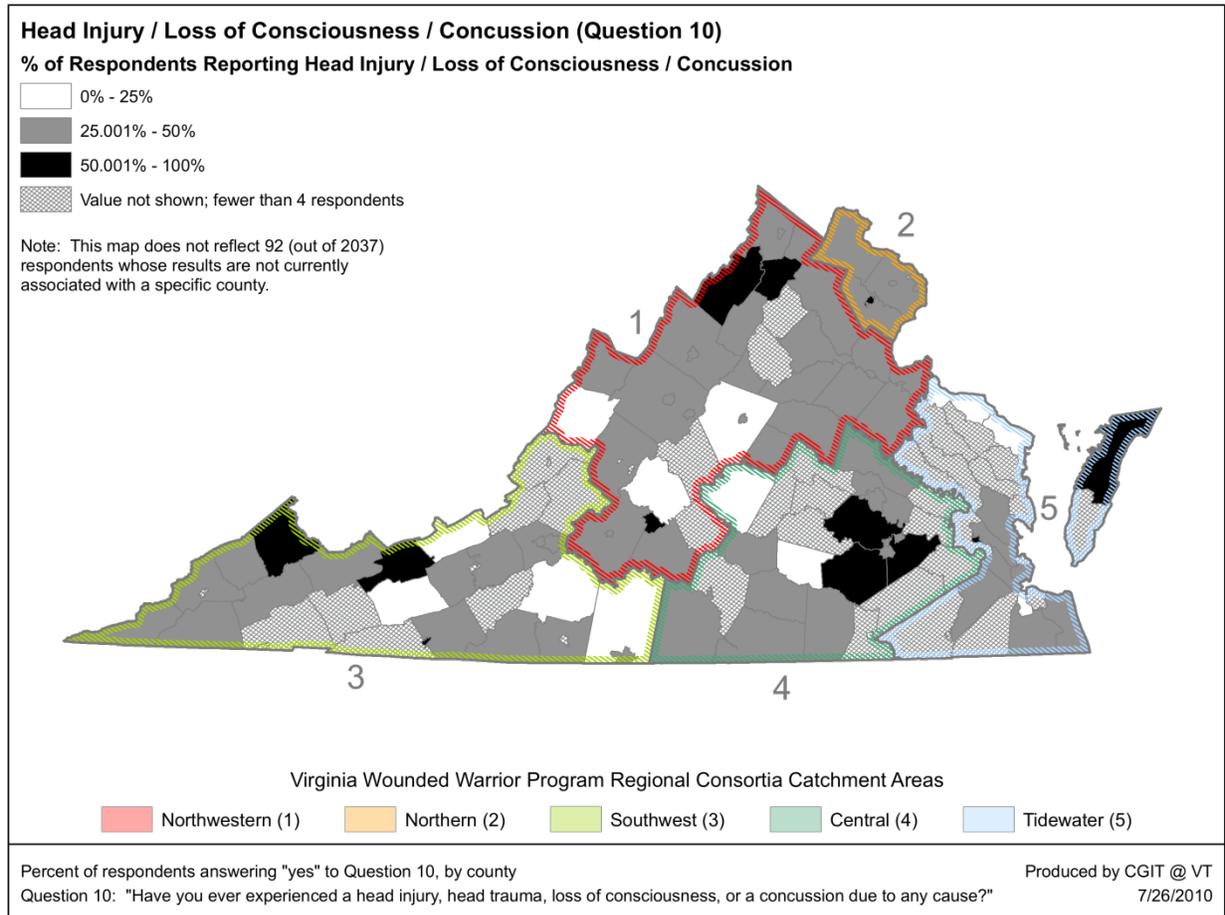
I. Profiles Based on VWWP Priority Service Areas

1. Traumatic Brain Injury

Thirty-eight percent of all respondents reported having experienced a head injury in their lifetime. The Northern region had the highest percent of respondents that reported having a head injury. Of branch of service cohorts, Navy (21%), Marine Corps (26%) and Army (21%) had the highest frequency of respondents that reported experiencing a service related head injury. Among deployment cohorts, Iraq/Afghanistan (26%), Persian Gulf (25%) and Vietnam (24%) veterans had above average percentage of respondents that had experienced a service related head injury. Respondents under the age of 35 have the highest rates of experiencing a head injury (29%). Those with higher rates of education (some college through advanced degree) and respondents reporting annual income over \$50,000 is more likely to have a service related head injury. Male and females are equally likely to experience a service related head injury.

Cross tab correlation analysis indicates that there is a significant correlation between a head injury and depression as well as a high correlation between head injury and substance abuse. The statistical results of these tests are found in **Appendix 13**. Also, **Figure 20** provides information about the location of those that reported head injuries.

Figure 20

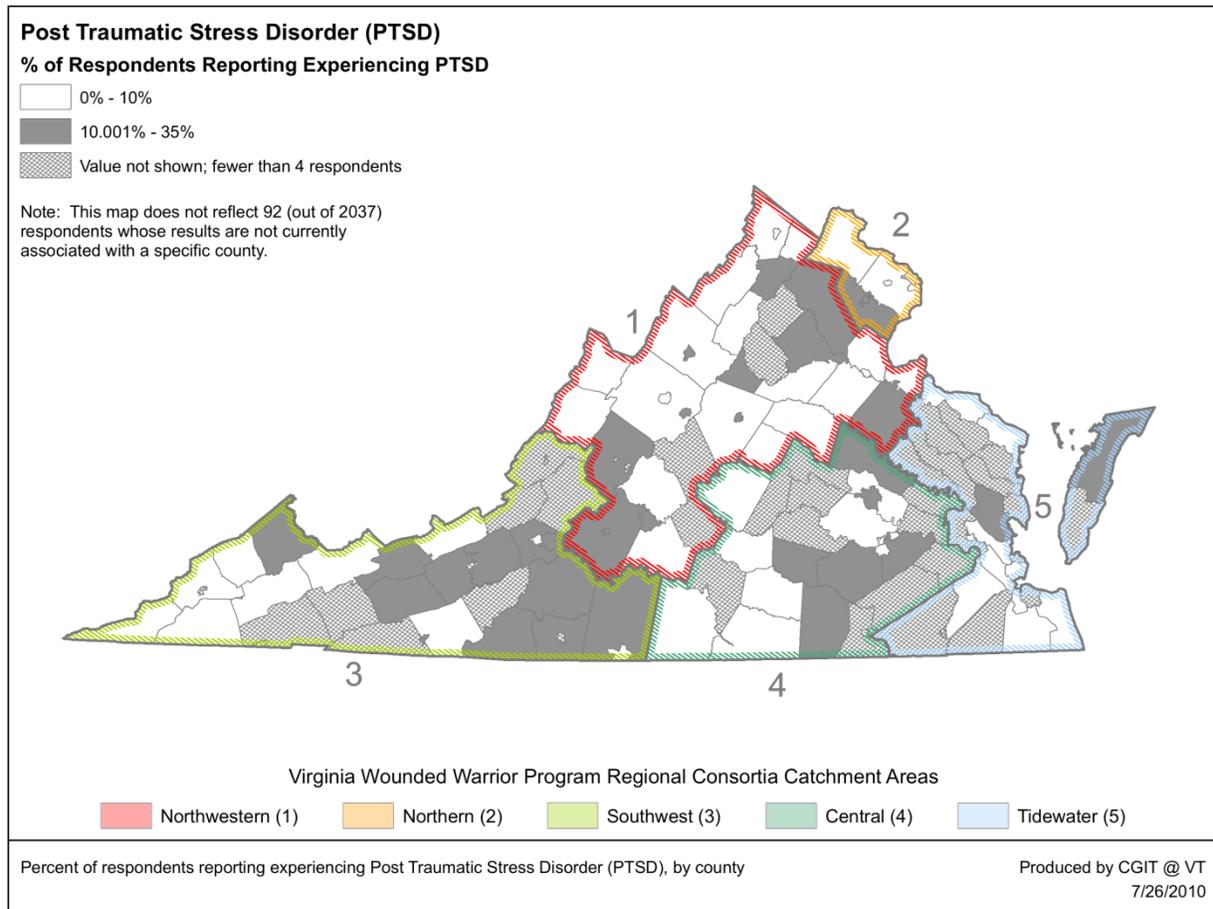


2. Respondents Reporting PTSD

Respondents in Southwest Virginia represented the highest percentage of veterans experiencing PTSD. The Army and Marine Corps had the highest percentage of respondents that reported experiencing PTSD. Iraq/Afghanistan and Vietnam era veterans reported at higher rates that they experienced PTSD. This shows the relationship of PTSD to extended time of deployment and also the challenges of multiple deployments. Minority respondents reported at higher rates that they experienced PTSD when compared to white respondents. The effect of the recent combat locations and Vietnam is also evident in the age of respondents. Respondents less than 35 and between the ages of 56-65 had the highest representation of PTSD. Men had higher rates of PTSD than women. Income appeared to be a protective factor for PTSD. Rates of PTSD decreased as income increased. Also, the highest two levels of education were marked with lower rates of PTSD. Respondents that had attended some college but did not hold a degree experienced the highest percentage of PTSD when compared

to other education groups. **Figure 21** provides information about the frequency of responses by locality that reported experiencing PTSD.

Figure 21

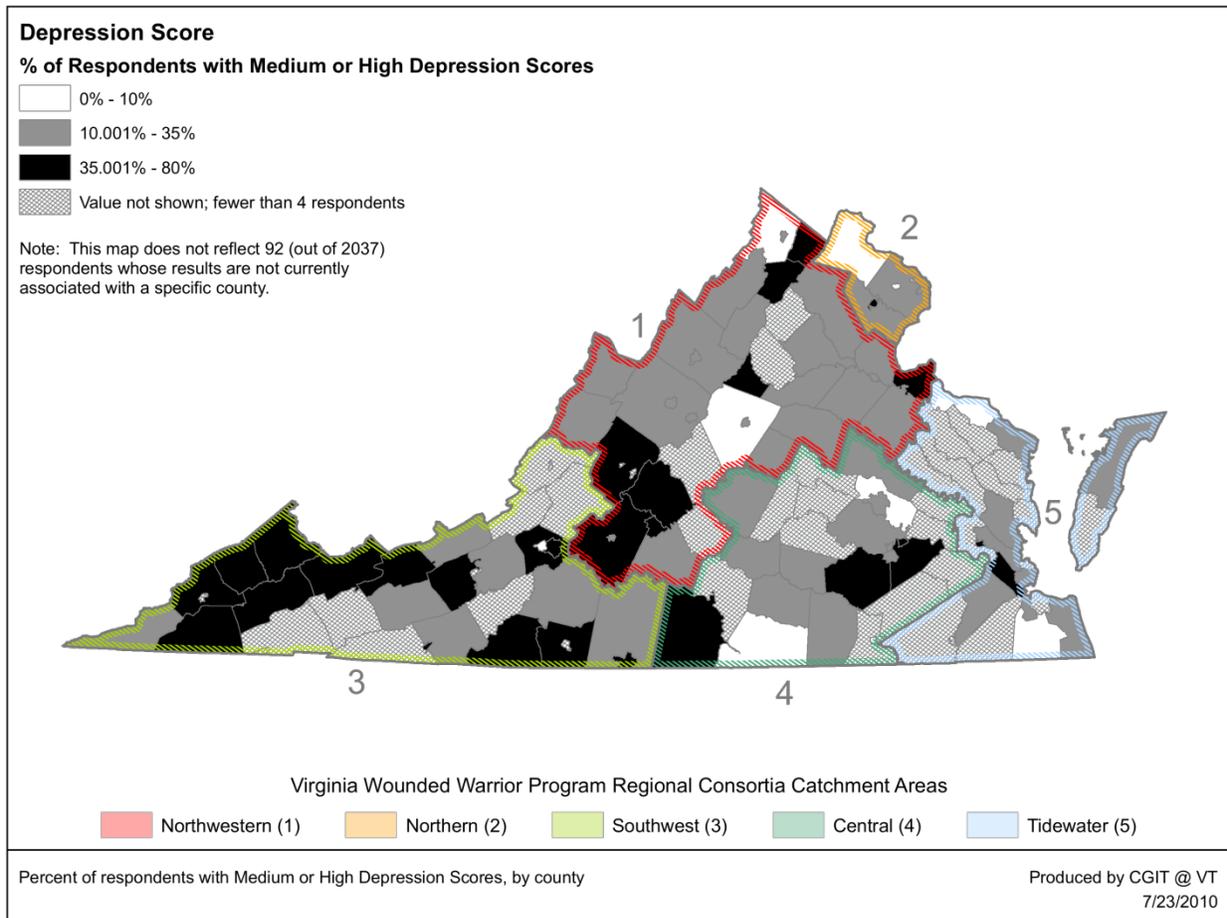


3. Depression

A depression score was created by combining the nine parts of question 9 with Questions 17 and 18. The score was then split into None, Low (1-5), Medium (6-10), High (more than 10). This revealed that at the state level, 37.8% of respondents had no indication of depression, 37.8% had low indication, 13.8% had medium indication and 10.9% had high indication. The Northern (41.6%) and Tidewater (43.9%) regions had the highest indication of no depression. The Southwest Region had the highest percentage for the high score of depression (20%). This shows the significant regional variation in depression. The Air Force and Navy had the highest percentage of no indication of depression. The Army and Marine Corps had the highest indication of depression. Those that were deployed to the Persian Gulf (44.9%) and Never Deployed (42.4%) had the highest indications of no depression and those deployed to Vietnam

(18%) had the highest indications of depression. White respondents had the highest percentage of no indications of depression and minority respondents had the highest percentage of indication of high depression. Respondents ages 65+ and ages 46-55 had the highest percentage of no indication of depression and respondents ages 56-65 had the highest percentage of indication of depression. Respondents that held advanced degrees or were at the highest income brackets were the least likely to feel depressed. Respondents that held a high school diploma or less, or were in the two lowest income brackets, were the most likely to feel depressed. **Figure 22** provides information about the frequency of responses by locality that reported experiencing depression.

Figure 22
Location of Respondents Reporting Depression



Depression Profile

A One-Way Analysis of Variance confirms that there is a significant relationship between the depression score and the Southwest region.⁶ The veterans in Southwest Virginia are consistently more depressed (as measured by our index) than all of the other regions in the state. This analysis indicates that there is a high likelihood that the Central region has higher than average rates of depression.

Running independent samples t-tests against the dichotomous variable Southwest provides a picture of the significant features of the typical Southwest veteran answering the survey. The significant features are that they are male, under 50, were in either the Army or Navy, are not satisfied with their employment or financial situation, are not satisfied with the level of veteran services offered, have sought medical care in the VA system, have been admitted for mental health treatment, and have been told by a family member that they have a substance abuse problem. Head injury does not appear to be more prevalent in Southwest than other regions.

Appendix 13 provides the supporting data for the cross correlation analysis.

J. Analysis of Open-Ended Responses

The telephone survey provided detailed quantitative data about health/wellness satisfaction and also asked open-ended follow-up questions for those that were dissatisfied or answered yes to health/at-risk questions. These questions included medical diagnosis, substance abuse, lack of health-care access, and dissatisfaction with current financial, health, social life, or services.

Appendix 14 provides information about the most frequent responses to the open-ended questions. **Appendix 14** contains word clouds for the open ended responses – the larger the word or phrase the higher frequency that it was mentioned. This data was collected for the survey as a whole and also broken down by the five Virginia Wounded Warrior Program planning regions. The following section provides an overview of survey responses by the state and regions.

1. Virginia

The most frequent open-ended response for the state was need for “*better income.*” Dissatisfaction with current income was a major area of concern for survey respondents. This included “*current financial situation,*” “*ability to pay their bills*” and “*current employment situation.*” The next two most frequent responses were “*job opportunities/priority*” and “*long*

⁶Note: the Tukey HSD and Bonferroni two typical pair-wise post hoc tests were used for this analysis. The Bonferroni, more conservative, reveals that it is significant at the .05 level.

distance to services.” The “*job opportunities*” response reflects concerns voiced by veterans in focus groups that finding employment that matches their skills from military service is a challenge. Survey respondents that voiced the response “*job opportunities/priority*” also felt strongly that veterans should be given priority for employment opportunities. Service related dissatisfaction represented a frequent concern raised by veterans. The “*long distance to services*” was the second most frequent response but veterans were also concerned over medical/dental coverage, lower costs, additional services (including mental health, dental, etc.), more timely appointments, and lack of services available in their area.

2. Northwest Region

“*Better income,*” “*job opportunities/priority,*” and “*long distance to services*” were the top three responses in the Northwest Region as well. “*Lower cost*” for services, lack of services, lack of coverage for dental services were also frequent responses. Most of the frequent responses in this region mirrored those of the state as a whole.

3. Northern Region

In the Northern Region “*improved medical condition,*” “*better income,*” and “*lower costs*” were the three most frequent responses to open-ended questions. This was a departure from the Northwest region and the state as whole. Veterans voiced frustration with their current medical condition and a desire for it to be what it was “*before they entered service.*” Medical cost and lack of services were also significant responses. Respondents were concerned about dental care, choice in providers, additional mental health services. Another frequent response in this region was “*better information*” about services and benefits.

4. Southwest Region

The top three responses in the Southwest region were “*better income,*” “*long distance to services,*” and “*lower costs.*” This supports the focus groups and quantitative survey responses in this region showing income, employment and service availability as challenges. Other frequent responses in this region included: improved medical condition, more dental care, job opportunities/priority, and lack of services availability. This supports evidence that the rural nature of this region, lower income, education, and employment instability created additional health/wellness challenges.

5. Central Region

The top three responses were *“better income,” “more dental coverage,” and job opportunities/priority.* Veterans in this region had significant concerns about employment and benefit services. Distance to services, high deductibles, more respect/understanding, lack of transportation, timeliness of appointments, lack of mental health services and more medical services were also frequent responses in the open-ended responses to this region. Veterans in this region also had higher disability ratings when compared to other regions.

6. Tidewater Region

“Better income,” “lower costs,” and “more medical services” were the top three responses in this region. Additional frequent responses were: more dental care and coverage, job opportunities/priority, more timely appointments, more respect/understanding, and long distance to services. These responses show that service availability and convenience were a high priority for veterans. It also shows that employment and coverage for services were priority needs in this region.

7. Observations

The overview of open-ended responses reveals that veterans throughout the state are concerned about employment. Respondents are looking for better job opportunities that would provide additional income/medical coverage. Veterans also feel that veterans should be given priority in hiring. It also shows that service availability is a problem. Veterans across the state see distance as a challenge. They also feel that cost, cultural competence and options in providers as a challenge. Another consistent theme in the open-ended responses was timeliness in appointments. Veterans in the survey and focus groups voiced concern over long wait times, the short time of appointments, multiple appointments for conditions, and different providers at each appointment. Respondents were concerned that there was lack of consistency in medical care and also did not feel many providers were qualified, lacked respect for them and questioned the validity of their conditions.

VI. Summary of Focus Group Results

Focus groups were convened with veterans and veterans' service providers across the state. Between March 23rd and May 5th, sixteen focus groups were conducted. These groups included ten service provider focus groups and six veteran focus groups. The focus groups varied in size from twenty-two participants to three participants and lasted from one hour and thirty minutes to two hours and thirty minutes. As detailed in Section III, the focus group protocol was developed to compensate for variation in number of participants.

The results presented below are separated for the service provider and veteran focus groups. Any regional variations are noted.

A. Service Providers

1. **Question 1 - Most critical service needs of veterans, National Guard and Reserve members, and their families?** In reviewing the overall results for Question 1, there were six categories of responses that were systematic among all the focus groups.

i. Need for better, coordinated information (105 points)

- a. Service providers, veterans and their families need multiple access points to comprehensive information on services that are available and how to access services.
- b. Access points need to include internet, telephone and veteran peer counselors who have knowledge of benefits, services and how to access.

ii. Access to services – service barriers (80 points)

- a. The need for increased partnerships between federal, state and local agencies to increase community based access to services. Increased flexibility and funding of services outside the VA system and an increase in TRICARE providers.
- b. Mental health services available after 5:00P.M.
- c. Transportation to services
- d. Expanded eligibility for higher income levels

iii. Access to Services – service shortages (65 points)

- a. Veterans Support Groups
- b. Dental Services
- c. Services in rural areas where National Guard and Reserves are more likely to be residing
- d. Substance Abuse Services – Greatly needed in coordination with PTSD and TBI treatments and services

iv. *Stigma of Seeking Treatment and Services (52 points)*

Fear that seeking treatment will negatively impact military and civilian careers is especially poignant for National Guard and Reserves who are between deployments and need to maintain status for income. National Guard and Reserves are not aware of cognitive disabilities or seek to hide these disabilities for reasons of job security.

v. *Economic Hardship at Individual Level (48 points)*

- a. Multiple factors combine to create economic hardship.
- b. Difficulty in finding employment between deployments. Loss of employment due to multiple deployments. Stigma in hiring veterans as employers feel potential liability if PTSD present.
- c. Transportation – Barriers to transportation based on income, disability, isolated geographic locations.
- d. Housing Insecurity – Especially in Northern region and Tidewater region. Need services for homeless families.

vi. *Service Needs of Families (21 points)*

- a. Families and key community partners need counseling to understand symptoms and behaviors of veterans
- b. Life coaches for struggling families
- c. Family involvement in treatment processes
- d. National Guard and Reserves – need more seamless support and services during and between deployments

2. Question 2 - Best services currently available to meet the needs of veterans, National Guard and Reserve members and their families?

This question was posed to develop a base for which services/agencies are viewed as the strongest foundation for meeting the needs of veterans and their families.

i. *Veterans Administration Services (110 points)*

While there were mixed responses by region regarding the strength of VA services, particular VAs that were noted as providing good overall or specialty services included those in Richmond and Salem, Virginia and Martinsburg, West Virginia. Other noted services included:

- a. Medical/Primary Care services (though eligibility barriers were mentioned).
- b. Brain Injury Services (fewer barriers than community providers).
- c. Vet Centers for Counseling.
- d. PTSD Services.

- e. Detoxification Program.
- f. CBOCs.
- g. Transition Assistance Program (Dept. of Defense – Newport News).

ii. General Service Categories (61 points)

- a. The following services were identified without reference to a specific provider unless noted.
- b. Tele-psychology
- c. Transportation Services (Gloucester/Newport News)
- d. PTSD and TBI services (screened through primary care)

iii. Virginia Wounded Warrior Program (55 points)

The VWWP was noted as a strong asset across the regional focus groups with particular note of the following services:

- a. Financial and housing assistance
- b. Coordination of medical services
- c. Flexibility in getting services for veterans who are having their eligibility reviewed or limited

iv. Peer-to-Peer Programs (52 points)

Peer-to-peer and veteran-to-veteran programs were noted as important services to veterans and their families. Fort Picket and Tidewater National Guard Vet2Vet programs were specifically identified.

v. Employment Services (48 points)

Employment and training programs were identified as critical.

vi. Department of Rehabilitative Services and Community Services Board Services (32 points)

These services are seen as varying from one region to another but as critical to the continuum of care for veterans. It was noted that while services are available, these agencies are not seeing many veterans and that veterans may not be aware of the services that are available.

3. Question 3 - Service gaps and barriers to building capacity for the services?

Different than needs, this question focused on identifying the capacity, policy, program and funding barriers that create gaps in services critical to veterans and their families.

i. Lack of coordination and policy to allow for seamless, system wide service provision (144 points)

Lack of veteran centered case management that operates between federal, state and local service systems. Difficulty in coordinating required paperwork to access services, particularly for National Guard and Reserves. There was specific mention of lack of coordination among treatment/service providers for mental health (PTSD), TBI and substance abuse.

ii. Shortage of affordable housing, transportation and job skills training, and lack of insurance coverage (77 points)

Need for transitional housing as well as housing with supportive services for disabled veterans. Career and older military need job training to meet current job demands.

iii. Lack of funding and restricted eligibility for services (61 points)

Not enough funding at the community level to develop and provide services. Too many bureaucratic and categorical restrictions that limit eligibility for services including VEC programs and lack of coverage for specific services such as cognitive rehabilitative therapy and a inpatient facility for Tidewater to treat co-morbid substance abuse and PTSD in active duty military.

iv. Lack of information on services and appropriate timing for provision of information and assessments (44 points)

Difficulty in navigating system for the needed services due to lack of coordination, knowledge deficits, language barriers (different terminology). The timing of demobilization information is not appropriate to meet the needs of veterans. Information and assessment needs to come three to six months following demobilization.

v. Stigma associated with seeking services and lack of cultural competence (32 points)

Veterans and National Guard and Reserves fear stigma of seeking services as threatening job and military status. VA and community providers need training in military issues.

4. Question 4 - Ideas for ways to improve services to meet needs of veterans, National Guard and Reserve members and their families. Participants were asked to identify what is needed to create important services in your area? What would be the ideal service or improvement in service? Is the ideal possible?

i. Centralized case management and one-stop center resource center for veterans. (112 points)

ii. Service provider coordination and partnerships (88 points)

In every region service providers expressed the need for regular meeting and information sharing. Suggestion included quarterly meetings of veterans, service providers, service fairs (similar to job fair model) where service providers and veterans can network and discuss and develop initiatives to strengthen partnerships.

iii. Cultural Competence in program development and delivery (52 points)

Service providers need more training and awareness of military culture and experiences in provision of services. Peer-to-peer support programs need to be

expanded. New programs for veterans need to be developed with input and direction from veterans.

iv. Improved fluidity between VA and community services through funding and policy changes (44 Points)

Service arrays and delivery systems should be more locally driven (planning district model was suggested)

v. Improved information network for veterans, families and services providers (42 points)

Need multiple information portals to meet varying needs of veterans based on age, disability, and range of needs. Should be a rating system (by peer veterans) to inform veterans about the quality of services. Importance of veteran involvement in guiding system development was mentioned

vi. Specific Services (35 points)

- a. Comprehensive assessment at discharge and information and reassessment 6 months after discharge
- b. Extended evening and weekend hours at VA facilities
- c. Skills training for disabled veterans
- d. Substance Abuse treatment expansion
- e. Transitional Housing
- f. Transportation

B. Veterans

1. Question 1 - Most critical service needs of veterans, National Guard and Reserve members, and their families? The same general categories that were generated from the Service Provider groups were also generated by the veteran focus groups. However, the subtext varied somewhat from the service provider feedback.

i. Need for better, coordinated information (10 points)

- a. Veterans need more education about resources prior to leaving active duty.
- b. Do not know where to go for services if they do not meet full benefit criteria.

ii. Access to services – service barriers (42 points)

- a. Services (Veterans Administration) need to be same everywhere (like McDonalds).
- b. Need expedited claims services; it takes too long to get services/benefits approved.
- c. No services for military contractors.
- d. There is mismanagement of resources.
- e. Continuum of care between and during deployments – more coordination in care during active duty and post-deployment.

f. Need to bridge gap between VA and community services – Need for community based benefits counselor.

iii. Access to Services – service shortages and quality (33)

- a. National Guard – different needs than career military – need for services to assist with reintegration into the community.
- b. Veterans and families need better / more access to dental care.
- c. Increased peer-to-peer services.
- d. Need for increased training of providers on military protocols and experiences of current combat veterans (cultural competence).
- e. Lack of treatment for agent-orange exposure, exacerbating Vietnam veterans' chronic health issues.

iv. Stigma of Seeking Treatment and Services (30)

- a. Need confidential treatment options. Fear that seeking treatment will negatively impact military and civilian careers.
- b. Some veterans not using VWWP program because of the “wounded warrior” interpreted to mean only soldiers with PTSD and TBI.

v. Service Needs of Families (30 points)

- a. Community support for families.
- b. Better need to understand what veteran has experienced and how to help veteran re-acclimate to civilian life.
- c. Dedicated family services (family should not have to go through veteran to access).

vi. Economic Hardship at Individual Level (21 points)

- a. Transportation to services not available and/or convenient.
- b. Need for better housing for families transitioning from military to civilian and for those with health problems and disabilities.
- c. Need for financial and career counseling services prior to and for a time period following discharge.
- d. Improved employment options.

2. Question 2 - Best services currently available to meet the needs of veterans, National Guard and Reserve members and their families?

i. Veterans Administration Services (29 points)

- a. Travel/Transportation Reimbursement.
- b. Prescription Mail Services.
- c. Yellow Ribbon Program.

- d. Smoking Cessation Program (Hillsville Clinic specifically mentioned).
- e. Mental Health Services (Better since 2000, but still below capacity).
- f. Assessment Process – (Screening for PTSD during visits seen as both positive and negative).

ii. General Service Categories (26 points)

- a. The following services were identified without reference to a specific provider unless noted:
- b. Law Enforcement Training – to identify veterans who may be experiencing PTSD or TBI symptoms.
- c. Dental Services (Blacksburg – improvement in past two years).
- d. Homeless Programs (Richmond area DOD/VA program noted).
- e. Faith-based organizations support (Lynchburg).

iii. Virginia Wounded Warrior Program (22 points)

- a. The VWWP was noted a strong asset across the regional focus groups with particular note of the following services:
- b. Financial and housing assistance.
- c. Coordination of services for families.
- d. Flexibility in getting services for veterans who are having eligibility reviewed or limited.

iv. Peer-to-Peer Programs (19 points)

- a. Peer-to-peer and veteran-to-veteran programs were noted as important services to veterans and their families across all regions of the state.
- b. Noted that veterans need trust to access mental health and substance abuse services and most trust one another.
- c. Longwood University student veterans group.
- d. Marine for Life mentoring program.

v. Department of Rehabilitative Services and Community Services Board Services (12 points)

These services are seen as varying from one region to another but as critical to the continuum of care for veterans. Seen as safety net provider for veterans and military contractors who have acute PTSD and other disabilities but not eligible for veteran services due to eligibility criteria or discharge status.

vi. Employment Services (8 points)

Employment and training programs were identified as critical, especially those that could be locally tailored.

3. Question 3 - Service gaps and barriers to building capacity for the services?

Different than needs, this question focused on identifying the capacity, policy, program and funding barriers that create gaps in services critical to veterans and their families.

i. Stigma, perception issues and lack of military culture (41 points)

Fear of seeking services and risking military (National Guard and Reserve status and/or employment). There was a perception of employers that all veterans have PTSD. It was also mentioned that there was a lack of military culture awareness and respect by VA and community providers. Veterans trust other veterans – should be providing more peer services.

ii. Lack of funding or eligibility for services (41 points)

VA eligibility requires too low an income. Contractors and those with less than honorable discharge are not eligible for some or any services. There was a lack of consistent funding and services for National Guard and Reserves. Inability to get documentation, specifically Form 214, is a barrier to accessing services. When wounded in combat medical records are particularly difficult to maintain and access for National Guard and Reserves

iii. Lack of Information and awareness regarding services (24 points)

Information is incomplete, out of date and fragmented. Need centralized information source.

iv. Transportation, Job Training and Job Search Assistance deficit to ensure transition back to community. (8 points)

4. Question 4 - Ideas for ways to improve services to meet needs of veterans, National Guard and Reserve members and their families. Participants were asked to identify what is needed to create important services in your area? What would be the ideal service or improvement in service? Is the ideal possible?

i. Increase cultural competency within system and reduce stigma. (53 points)

There is a need for training of service providers to increase awareness of military culture and issues facing various veterans (Vietnam, OIF/OEF, female veterans). Family and community outreach programs to reduce perceived stigma.

ii. Local resource and location for getting information and referral for services (50 points) Information with links to community services. One-stop that is staffed with peer veterans. Accountability with case manager for making sure veteran gets services. Information to families for National Guard and Reserves and their families that is continuous not just at deployment and demobilization.

iii. Increased transportation and employment services to meet varied need of veterans. (6 points)

VII. Implications for Program and Organizational Action

The statewide focus groups elicited recommendations from service providers and veterans for a range of program and organizational actions and enhancements. These recommendations are supported by findings of the veterans' survey and by literature supporting the needs of veterans and identifying evidenced based practices for meeting these needs.

A. Local and Regional Program and Organizational Action

1. ***Increased service provider coordination and partnership building*** – It was recommended across all five VWWP regions that veteran related service providers meet on a quarterly basis to gain familiarity of services that are available across programs and organizations. These meetings can be used for information sharing, discussion of emerging veteran needs and program enhancements and partnerships to better meet these needs. It was suggested during several focus groups that the VWWP would be the appropriate convener of quarterly meetings. This would address the need identified in the survey for enhanced community services.

The need for increased community services was also signified by the survey results. Only 42% of overall respondents indicated satisfaction with community-based services while 15% indicated dissatisfaction. Also 43% were unfamiliar or unaware of community-based services. Respondents indicated a desire for increased community services for medical and dental services (29%), family members (28%), financial needs (17%) and mental health (8%).

Related literature also points to the need for enhanced community services. The RAND study (2008) supports the need for expanded community services stating: "Given the diversity and the geographic dispersal of the OEF/OIF veteran population, other options for providing health services, including Vet Centers, non-medical centers that offer supportive counseling and other services to veterans and other community-based providers, must be considered" (Tanielian and Jaycox).

2. ***Increased cultural competence among service providers*** – In-service training programs can be developed to help service providers gain awareness and knowledge of military culture. Such training should delineate difference

between service branches, career and National Guard and Reserve cohorts, deployment and combat cohorts, and racial and gender difference among veterans, as well as geographic based cultural differences. Peer-to-peer (veteran-to-veteran) services and programs were specifically recommended. Veterans also recommended community outreach programs to families, employers and others to reduce perceptions and stigma of military service surrounding PTSD and TBI. Specifically, many employers are scared that returning veterans will be unstable and “*loose cannons*” in the workplace.

The connection between cultural competence and quality medical care, as well as, ethical treatment, is demonstrated in the RAND Study and in the article *Civilian Psychologists in an Army Culture: The Ethical Challenge of Cultural Competence* (Reger, et al, 2009). The RAND study calls for a certification process and training programs to ensure that veterans service providers “demonstrate requisite knowledge of unique military culture, military employment, and issues relevant to veterans” (Tanielian and Jaycox).

3. ***Improved information network for veterans, families and service providers*** – Information services and portals that provide easy, accessible information on veteran services. These virtual and real resources need to be developed to address the varying needs of veterans including age differences, resource variations and disability accommodations. Veterans specifically emphasized a one-stop center for accessing information, resources and referrals.

The resources that are currently available are primarily employment related, however, veterans called for one-stop type resources that would extend to meet eligibility, healthcare and mental health needs. The best examples of veteran one-stops have been found at higher educational settings and include [University of Wisconsin](#), [Northland Community and Technical College](#) in Minnesota and [University of Minnesota](#).

4. ***Specific Service and Program Enhancements at Local/Regional Level*** – Specific service and program enhancements were suggested to meet unique and priority regional needs.

- a. *Extended evening and weekend hours at VA and community facilities to accommodate working veterans* (highest emphasis in Central, Northern, Tidewater)
- b. *Transition skills training (emphasized in Central and Southwest) for local employment opportunities.* Training programs and employment support exist through several federal and state agencies including the U.S. Department of Labor's [Veteran's Employment and Training \(VETs\)](#) program and the [Virginia Employment Commission](#) and a multitude of private trade school and on-line job search and education programs. However, veterans report that it is difficult to find training support that meet their strengths and makes them marketable in the local job market.
- c. *Improved continuous information for National Guard and Reserve families.* In late 2009, the National Guard introduced the [Joint Services Support \(JSS\)](#) portal. The Department of Defense has also developed the [Yellow Ribbon Reintegration](#) program which aims at information and services around the timeframe of demobilization.
- d. *Programs for combined treatment of PTSD, substance abuse and TBI* (emphasis in Tidewater, Northern and Northwestern). While there is support in the literature (see literature review section) for clinical approaches to treating co-occurring PTSD, TBI and substance abuse, both veterans and service providers indicated that these treatment approaches are not readily available in Virginia.
- e. *Improved transportation services for low income and disabled veterans.* Transportation barriers create access problems to services in all regions but were most notable in the rural VWWP regions. The article *Rural and Urban Disparities in Health-Related Quality of Life Among Veterans With Psychiatric Disorders* indicated that access issues including transportation, result in more acute manifestation of psychiatric disorders among rural veterans. Veterans from urban areas indicate that while public transportation is often available, symptoms of PTSD and TBI can reduce the use of these resources to access medical services. Hassett and Sigal (2002) assert that one symptom of PTSD is the avoidance of public transportation.

B. State

1. ***Centralized Case Management and One-Stop Centers*** - Coordinate with federal agencies (VA) and local partners to develop system for centralized case management and one-stop resource, eligibility and information centers. This would require developing an information system on Virginia veterans. There is also a need to develop a system for rating veterans' services at the regional and local level to make service providers more accountable.

Considering the call for improved case management, the literature that has been reviewed primary refers to case management in the health care or mental

health setting and alternatively identifies “*care management*” as a proven and needed means of providing more engaged and integrated connections between primary, mental and behavioral health care (Tanielian and Jaycox). Expanding on this concept, the veterans who participated in the focus groups called for case management that not only involves accessing and coordinating health care, but other services as well including eligibility, employment and education referrals and services. It was further suggested that peer veterans who have had experience and success navigating the system may be the best positioned to provide holistic case management. The role of peer specialist support is supported in the literature as increasing outcomes for mentally ill and homeless veterans (Weissman et al, 2005) (Chinman, Shoai and Cohen, 2010) and may be expanded to supporting a more comprehensive array of community services.

The [Department of Veterans Services](#) has 21 field offices across the Commonwealth of Virginia. Survey respondents indicate that these offices provide assistance at a higher rate (41%) than the VA (25%) and Veteran Services Organizations (16%). However 46% of respondents also indicate that they are unfamiliar with “*services for veterans in their community*,” indicating that outreach to veterans to raise awareness may be warranted.

In addition to providing more informed and coordinated service information focus group participants also suggested a consumer rating system for veterans’ services. While there are various models for consumer rating of services including the [U.S. Department of Health and Human Services’ Agency for Healthcare Research and Quality](#) and fee-based market sources such as [Consumer’s Check Book](#), there does not appear to be a rating system facilitated for veterans’ services. Initiating such as effort may be best suited for a national level veteran’s advocacy organization.

2. **Capacity Building Support** - Provide support and funding for greater local and regional service provider coordination and partnerships. The DVS and VWWP should seek strategies to promote and create community level partnerships through supportive facilitation of meetings, funding and monitoring pilot initiatives, assist with grant development and submission. The literature points

to creating local and regional systems of care involving partnerships between public program and private providers (Keats et al, 2004).

3. ***Development of Cultural Competency and Community Awareness*** – to support development of cultural competency training on military and veteran culture. The DVS and VWWP program has engaged in building relationships with a number of Virginia’s higher education institutions to provide assistance in developing resources and interventions for veterans. These organizations and partners can consider developing training for community primary care and mental and behavioral health providers on the nuances of military and veteran culture. This training could be developed in symmetry with VA system training for cultural competence (Tanielian and Jaycox) and the promotion and expansion of peer-to-peer services as providing ready cultural competence (Resnick et al, 2004).

4. ***Advocate for Changes in Demobilization Processes*** - Recommend protocols for Department of Defense and VA on improved information provision and assessment of mental, behavioral and physical health needs at discharge and demobilization, and for an appropriate time period following demobilization and discharge. The literature indicates that reassessment at six months is much more likely to result in early discovery of underlying PTSD and TBI as well as other problems (Milliken, Auchterloine and Hoge, 2007) (Iverson et al, 2009). This literature points to reassessment as particularly critical for National Guard and Reserves and that engaging the spouse, significant other or another family member reduces stigma and increases compliance of the veteran (Milliken).

5. ***Facilitate Flexible Funding*** - Advocate for greater flexibility in funding between VA system services and community providers. This could explore demonstration projects funded by the VA system that enhance system of care coordination. The U.S. Department for Veterans Affairs has acknowledged the increase in female veterans and veterans living in rural areas in the Strategic Plan FY 2010-2014 by establishing as a strategic goal to serve veterans and

their families in the community by developing partnerships with community based providers. The DVA Strategic Plan can be a point of entry for advocating for non-traditional service delivery systems. The Civilians for Veterans Funds a collaborative effort between Colorado's community mental health centers, private donors, and the Department of Veterans Affairs provides veterans of OEF and OIF and their families with free, confidential mental health treatment in three rural Colorado communities (Forrestal, 2008). This collaborative effort could serve as a model for flexible funding.

6. **Specific Service and Program Enhancements** – Development and expansion of targeted programs to meet critical needs.

- a. Job training and employment support - The US Army Wounded Warrior (AW2) Program has entered into an MOU with the National Organization on Disability (NOD) to pilot three demonstration projects in Texas, North Carolina, and Colorado providing specialized services to veterans and their families as they transition to civilian careers with the objective of the pilots to make lessons learned known to the Army, the rest of the military and service agencies. As the pilots progress the lessons learned can be applied to employment support programs in Virginia.
- b. Educational program support - promote use of GI bill and other educational benefit programs. Provide coordination and facilitate support to the higher education institutions seeking to establish programs for veterans. Establish support service standards for colleges and universities seeking to recruit veteran students using the GI bill.

In the May 28, 2010, issue of The Community College Times, Carisa Chappell reported on the efforts on several community college campuses to promote a welcoming environment for veterans. Some of the programs which focus on meeting the needs of veterans are: 1) on-campus veterans student center; 2) guidance on taking advantage of education and health benefits with coordinated regular workshops on education, training, and business; 3) specific courses to assist veterans in the transition from military to civilian life or from deployment to post-deployment; 4) classes tailored specifically to veterans taught by instructors with military ties; 5) classroom arrangements that are designed to make veterans more comfortable; 6) instructors who are culturally competent regarding the military culture; and, 7) veteran specific orientations.

The Virginia community college structure would lend itself to implementation of some of the aforementioned ideas. The VWWP could serve as a conduit for information regarding how to engage

veterans in the higher education system and what accommodations would enhance the veterans' opportunities for educational success.

Additionally the VWWP could promote certification standards for colleges and universities to promote educational programs targeted to veterans.

- c. Support development of evidenced based therapies and treatments for substance abuse, PTSD and TBI.
- d. Support expansion of peer-to-peer support programs for mental and behavioral health, employment and education. The Montana National Guard has implemented a program of conducting face-to-face screenings for two full years after deployment and has added a mental health component to the Soldiers annual physical exam. In addition, Guard officials realized that combat veterans need the support of their buddies. Rather than giving the customary 90 days off after returning from combat, soldiers and their families are brought together in civilian clothing at a convention center for socialization and to attend seminars. Some seminar topics are marriage enrichment, anger management, personal finance and learning how to drive as civilians again (Newhouse, 2009). As similar program in Virginia could address some of the issues of isolation for National Guard members and their families as reported in focus groups and telephone interviews.

C. Federal

1. **Continue Development of Electronic Health Records (EHR) for Veterans** – Develop EHR for veterans that will help facilitate case management across VA, state and local systems. This would enable EHRs to be used to facilitate case management between VA system and other health care systems.
2. **Support Local System of Care** - Increased program and funding flexibility for community services. This could be achieved by adopting planning district model for veteran services. The RAND study (2008) in calling for more community based services points out that TRICARE eligibility and provider incentives may need expansion to enable increased access to community services.
3. **Modify Demobilization Protocols** - Revise protocols for assessment and information dissemination at discharge and demobilization to include periodic assessments at three to six month period following discharge. This would eliminate practices that encourage suppression of mental and behavioral health needs.
4. **Expand VA System Hours** - Extend VA system hours to include night and weekend hours for working veterans.

VIII. Implications for Policy Action

A. State

1. Funding for veterans services expansion and local capacity building in the areas of primary care and mental and behavioral health care that are sensitive to the range of veterans' needs and those of their families.
2. Develop policies to improve and expand employment and training opportunities that are locally relevant and support economic development initiatives.
3. Promotion of educational benefits in state higher education center that includes facilitation of targeted degree and off campus program delivery that is structured to meet the needs of veterans and their families. Support higher education institutions in providing support services such as employment assistance and health services to student veterans.
4. Support policy and funding for development of state level information system for maintaining veteran contact records that has the capability to interact with federal and local systems

B. Federal

1. Policy and funding changes to allow for more fluid funding to community service providers that can indicate cultural competence, expertise and a track record in effectively serving veterans.
2. Adapt demobilization and discharge policies to allow for and require assessments in an appropriate and ongoing, periods following discharge or demobilization (three, six and 12 months have been recommended).
3. Policy to allow for increased sharing of veteran information and medical records to community providers and organizations providing outreach.

IX. Next Steps for Evaluation, Assessment and Research

The statewide needs assessment has provided a comprehensive and broad study of veterans needs, preferences and characteristics. There are several key areas that emerge for more in-depth and targeted study, as well as technical assistance to build capacity.

1. **Capacity building of community-based services** – An exploration of best and evidence practices to build sustainable community based services and partnerships for veterans.
2. **National Guard and Reserve supportive programs** – Propose a regional pilot to enhance information and supportive services to National Guard and Reserves and their families.
3. **OIF/OEF resiliency supports** – Explore the role of employment, training and education programs to enhance resiliency among OIF and OEF veterans. Looking at mechanism to translate and leverage military skills and experiences into civilian skills and best enable veterans to improve overall well being.
4. **Building cultural competence among service providers** – study models of cultural competence at various levels of service provision and how the models need to be adapted to address the varied needs across the VWWP regions.
5. **Emerging and evolving needs of female veterans** – as the number of female veterans continues to grow in Virginia assessing more specifically how their needs vary from their male counterparts should be examined more closely.
6. **Improved data and information systems** – explore the development of an improved information database of Virginia veterans and veteran related services.

X. References

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