



## 2012 WEST VIRGINIA VETERANS STUDY

Supported by the Select Committee on Veterans Affairs,  
West Virginia State Legislature

FINAL REPORT

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## 1. BACKGROUND AND INTRODUCTION

In 2007-2008, the Interim Select Committee on Veterans Affairs (the Committee) of the West Virginia (WV) Legislature sponsored a study of approximately 1,000 WV Veterans and Current Military Personnel (hereafter Veterans), with a focus on those who served during the periods of Operation Enduring Freedom (OEF, Afghanistan) and Operation Iraqi Freedom (OEF, Iraq). The study findings indicated that WV Veterans were self-reporting issues related to readjustment from combat and military service, such as depression, posttraumatic stress disorder (PTSD), stress in the family, and unemployment. In the intervening four years, conditions have emerged that impact our Veterans and recently returned Service Members. These conditions include:

- An increased number of Service Members separating from the military, as well as National Guard and Reservists, returning home as overall troop strength has declined by 64%. Department of Defense (DoD) projections indicated most troops would be returned from Iraq by the end of 2011 and from Afghanistan by 2012.<sup>1</sup>
- Nationally, unemployment of Post 9/11 Veterans is just under 12%.<sup>2</sup> Those who are experiencing unemployment may also face home foreclosures. Younger Veterans may also have no or limited health insurance, be attending college, or have failed to enroll for Department of Veterans Affairs (VA) health care and other benefits. These younger Veterans may also have families to support.
- Vietnam Veterans are experiencing worsening problems as they age, especially if they have not received help earlier in their lifetime. Veterans who are nearing retirement age may also be experiencing loss of employment, threatening their ability to complete mortgage payments on a nearly paid off home, and/or may not be enrolled for VA and Veterans Health Administration (VHA) benefits for which they may be eligible.

As a result of these concerns, the Committee decided to fund another study in order to gain additional and more current information about the needs of returning Service Members and the nearly 170,000 Veterans in the state. The Committee wanted the study to examine which services and best practices have been providing the greatest benefit to Veterans and which are not. The Committee plans to use the new study results to determine the best use of both state and federal resources to assist Veterans and their families, especially those returning from the wars in Iraq and Afghanistan, but also including Veterans of prior eras (e.g., World War II, Korea, Vietnam, and other conflicts).

Atlas Research (Atlas) was tasked with conducting the 2012 West Virginia Veteran Study for the Committee as a follow up to the 2008 study. Our team of experienced Veteran researchers within Atlas and West Virginia University (WVU) collected information, analyzed findings, and

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<sup>1</sup> Amy Belasco. *Troop Levels in the Afghan and Iraq Wars, FY2001-FY2012: Cost and Other Potential Issues*. Congressional Research Service. Retrieved on November 8, 2011 from <http://www.fas.org/sqp/crs/natsec/R40682.pdf>.

<sup>2</sup> *Economic News Release*, Bureau of Labor Statistics. October 20, 2011. Retrieved on November 8, 2011 from <http://www.bls.gov/news.release/vet.nr0.htm>.

developed recommendations on how to best meet the needs of WV Veterans. All three principal researchers, Hilda R. Heady, Joseph R. Scotti, and Roy Tunick, were members of the 2008 Study Team.

The 2012 study had the following objectives:

1. Determine how our Veterans overall (*i.e.*, across eras: WWII, Korea, Vietnam, and OEF/OIF), are faring now by assessing the well-being of a representative sample of 1,000 WV Veterans;
2. Determine among the sample of 1,000 WV Veterans, the number of employed, unemployed, student, and/or retired Veterans who may be potentially eligible for VA/VHA benefits and other state-supported workforce and/or educational and training programs; and
3. Assess the current state of Veteran needs in health and mental health care and identify the effective and ineffective approaches currently in use for Veteran reintegration by evaluating objective measures and valuing the opinions of these Veterans.

## 2. STUDY TEAM

The Study Team includes Atlas Senior Vice President and rural Veteran expert Hilda R. Heady, MSW, ACSW, and Joseph R. Scotti, PhD, and Roy Tunick, EdD. Together, our Study Team consists of nationally and state-level recognized experts in (1) working with Veterans, (2) conducting research on the needs of Veterans and their families, (3) the needs and policy concerning rural Veterans, and (4) research on trauma and stress. In addition, our team members have direct experience working clinically with Veterans who have experienced trauma, and their family members.

Our Study Team has utilized its combined skills and expertise to help the Committee gather the information and data needed to gauge the best use of both state and federal resources to serve the needs of WV Veterans and their families. Our bases of operation in both WV and in the greater Washington DC area have allowed our Study Team to determine how WV Veterans compare to Veterans nationally.

## 3. METHODOLOGY AND TECHNICAL APPROACH

### 3.1 STUDY DESIGN

The study includes quantitative and qualitative data from about 1,200 surveys of WV Veterans and Current Military Personnel, which surpasses the original goal of 1,000. The Study Team worked directly with Cabinet Secretary Keith Gwinn to identify a pool of Veterans from which study participants were recruited. A study recruitment postcard was developed and mailed to Veterans from the lists identified by the WV Department of Veterans Assistance. Study Team members also distributed postcards, flyers, and emails to organizations and agencies that serve WV's Veterans, and flyers were posted throughout the state. Participants were voluntarily recruited for the study and they were able to complete the survey online, by telephone interview,

or through a paper copy (mailed to them at their request). The study design was submitted to the WVU Institutional Review Board (IRB) by the WVU subcontracted researchers for approval, to ensure adequate subject protections were met, and to ensure the integrity of the study. The study design obtained WVU IRB approval on September 24, 2012.

The study was designed to gather adequate information for the Committee to gain a clearer picture of the current status of WV Veterans in terms of finances, employment, living conditions, physical and mental health, exposure to military and civilian stressors, and access to physical and mental health care.

### **3.2 SAMPLING METHOD TECHNIQUE**

The Study Team worked closely and collaboratively with Secretary Gwinn of the Department of Veterans Assistance in the conduct of this study. The sample was drawn from those Veterans who voluntarily agreed to participate in the study. This is known as a *convenience sample*, although extensive efforts were made to ensure a representative balance in the sample of Veterans according to: age, sex, and dates (eras) and locations of service (e.g., WWII, Korea, and Vietnam, up to the present).

Large, high quality, glossy postcards were mailed to roughly 8,000 Veterans who had applied for the State of West Virginia overseas/combat bonus payment through the WV Department of Veterans Assistance. Secretary Gwinn also directed his staff at the 16 Regional Offices to identify Veterans of WWII, Korea, and Vietnam as these eras were less well represented on the bonus list. Regional offices identified over 1,000 candidates. An additional 1,000 postcards were distributed to relevant agencies, Veteran Service Organizations, and other venues relevant to Veterans.

The postcards were pre-printed with a description of the study and instructions that detailed how to volunteer to be part of the study. To reduce the labor burden for the Department of Veterans Assistance, the postcards were pre-printed with the Veteran names and addresses from a spreadsheet the Department provided directly to the printer. The postcards were mailed directly from the printer to the named Veteran. This process allowed the Study Team to maintain the anonymity and confidentiality of the Veteran names, addresses, and other identifying information. Atlas has ensured the rigor of the printer's protocol in maintaining control and security of this information in such a way that the general public, the Study Team members, and others do not have access to this information.

The postcards requested Veterans to respond to an online survey tool and also provided a toll-free number operated and maintained by Atlas for Veterans who may want to complete the survey by telephone. The toll-free number also served as an opportunity for Veterans to ask questions concerning the online survey or request a paper copy of the survey. As an additional resource, the postcards provided other toll-free numbers for Veterans who might have experienced any stress associated with the survey and to address any immediate needs.

The study participant recruitment plan included financial incentives in the form of gift cards awarded to participants who completed the survey (a total of \$2,500 for 36 gift cards ranging from \$50 to \$500). After completing the main survey, respondents had the option to complete a separate Information Survey to provide contact information for the drawing, and request information about benefits and services.

Using a random table of numbers, Atlas Research staff selected the winners from a list of all who had completed the Information Survey through all methods; online, telephone, and paper surveys. Winners were notified and their gift cards sent by priority mail with the ability to track delivery on December 20, 2012.

### **3.3 DATA COLLECTION**

Atlas Research staff members are experienced in conducting telephone interviews and in the use of online survey tools. The Study Team used the online tool Survey Monkey to create the survey and collect data and perform some background analysis.

Those study participants who did not want to complete the survey online, could call a toll-free number, maintained by Atlas Research, to schedule a telephone interview. Atlas interviewers accessed the online survey instrument during the telephone interviews and recorded the participant's responses directly into the online system. All data were collected into the same online database as if the Veteran on the phone was completing the survey online directly.

Due to participant demand, a paper version of the survey was also created using the Survey Monkey tool. IRB approval was given for the paper survey on November 26, 2012. Individuals who called the toll-free number and requested a paper survey were prompted to provide their mailing information. Atlas interviewers assured that callers understood that their names and addresses would only be used to mail the survey, and it would not be reflected on the survey itself nor tied to their responses.

The paper survey included a return envelope, in which respondents were instructed to return their completed Main Survey instrument to the WVU-based researchers. The Information Survey, needed to register participants for the gift card drawing, was a separate form; a separate return envelope was included to send this form directly to Atlas Research. In this way, the anonymity of the participants was protected and not connected in any way to the completed Main Survey form, researchers did not see identifying information of participants, and privacy was not compromised.

### **3.4 DATA ANALYSIS**

A consideration in performing this survey primarily online was the automatic entry of data into a spreadsheet, thereby reducing staff hours in data entry, checking, and cleaning. As such, we had a faster turn-around time on the findings. Further, a wider range of questions with follow-up queries was possible due to the branch and skip functions possible through Survey Monkey.

Dr. Scotti led data analyses, using already available statistical packages (for both quantitative and qualitative data). Initial analyses examined the demographic and descriptive characteristics of the sample and the application of any weights that may be necessary to those characteristics.

In the prior 2007-2008 Survey, the Study Team obtained a sample of Veterans that included all 55 WV Counties, a minority/ethnic mix representative of WV ethnic distribution, and a representation of women equal to that seen in the Armed Forces at that time (10%). We achieved the same in the 2012 sample.

Three key factors were evaluated:

1. Understanding the military experiences of our WV Veterans (e.g., branch; dates; places; levels of combat exposure; and other traumatic events, such as military sexual assault).
2. Understanding the mental and physical impact on our WV Veterans of those military experiences (e.g., depression, PTSD, traumatic brain injury, substance use, suicidal ideation, and physical disability and illness).
3. Understanding the reintegration of our WV Veterans within their families, communities, schools, and employment (e.g., impact of readjustment on partners and children, employment, college attendance, and community supports and readjustment assistance).

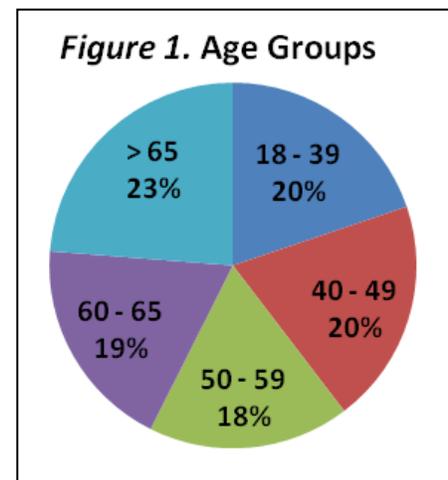
The Study Team is exploring the interaction of these factors, which allows for an examination of the needs of our WV Veterans and the barriers and facilitators to meeting those needs across the spectrum of service eras and demographics. A database of this complexity will require significant time and effort to explore fully the relations among the variables collected in this survey. As such, the present report provides the first glimpse of the status of WV Veterans across a wide age range (19 to over 90 years of age), giving summary data and descriptions. A more complete analysis that will report the interactions among multiple factors and provide detailed statistical support (i.e., trends, significance levels, odds-ratios) is underway. Some of these findings will be provided to the Interim Joint Committee in January 2013.

## 4. FINDINGS

### 4.1 DEMOGRAPHICS

The first step in the analyses is to describe who participated in the survey. Between September 27, 2012, and December 12, 2012, a total of 1,128 persons began the online survey. Only 12 declined to participate after reviewing the consent form. An additional 70 persons completed the survey on paper, bringing the total number of surveys to 1,186. In any survey, but especially of this length, persons drop-out and do not complete the full survey. To reduce the drop-out rate, the survey was divided into six major sections and several sub-sections, with multiple decision points at which respondents could decide to complete or skip a section. As such, various sections of the survey have differing completion rates. Where this is critical to understanding the data presented below, the related number of respondents will be indicated. In general, however, these data should be thought of as representing a sample of nearly 1,200 WV Veterans.

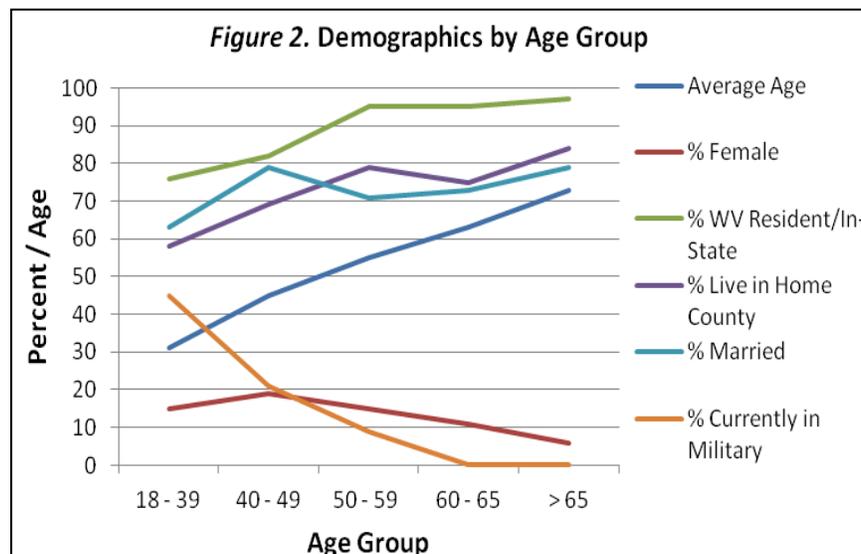
The first critical variable is age. The Veterans ranged in age from 19 to 94 years (average of 54 years). Five age groups (**Figure 1**) were established with approximately 20% of the sample (from 192 to 255 Veterans) in each. These age groups form the basis for presenting many of the survey



findings.

About 27% of the respondents indicated having learned about the survey from the postcards that had been mailed, primarily those Veterans in the two younger age groups (who were the primary recipients of the postcards). About 32% learned about the survey from newspaper stories, primarily older Veterans. Other sources for learning about the survey included radio/TV (10%), e-mail and other internet sources (20%), other Veterans or Veterans Organizations (12%), and flyers (3%).

**Figure 2** provides several demographics by age group. The groups differ in average age (31, 45, 55, 63, and 73 years). The overall sample is 8% female, with more women in the younger three (15%, 9%, 8%) age groups than in the older two (5%, 2%) age groups, due to the relation between age and era of service (*i.e.*, more women served in OIF/OEF than in WWII).



About 89% of the sample indicated being WV residents who currently live in the state, primarily in the WV County that they identified as their Home County. All 55 WV Counties are represented, ranging from as few as 1 respondent (*e.g.*, Boone, Mingo, and Pendleton Counties) to as many as 123 (Monongalia County). Some 14% are currently serving in the military (primarily the youngest age groups). Most of those who are WV residents who are living out of state are currently serving in the military. About 69% are married, 73% live with their partner, 83% have children (66% have from 1-3 children), and 85% live in a house (80% “own” that house).

The branches of military service included: Army (53%), Air Force (21%), Navy (17%), Marines (9%), and Coast Guard (1%), with some having served in several branches. The primary duty status while in the Military included: Active Duty (60%), National Guard (17%), and Reserves (14%). As would be expected, older Veterans (*i.e.*, WWII, Korea, and Vietnam) were more likely to have been Active Duty, while younger Veterans (OEF/OIF) were more likely to have been connected to the National Guard.

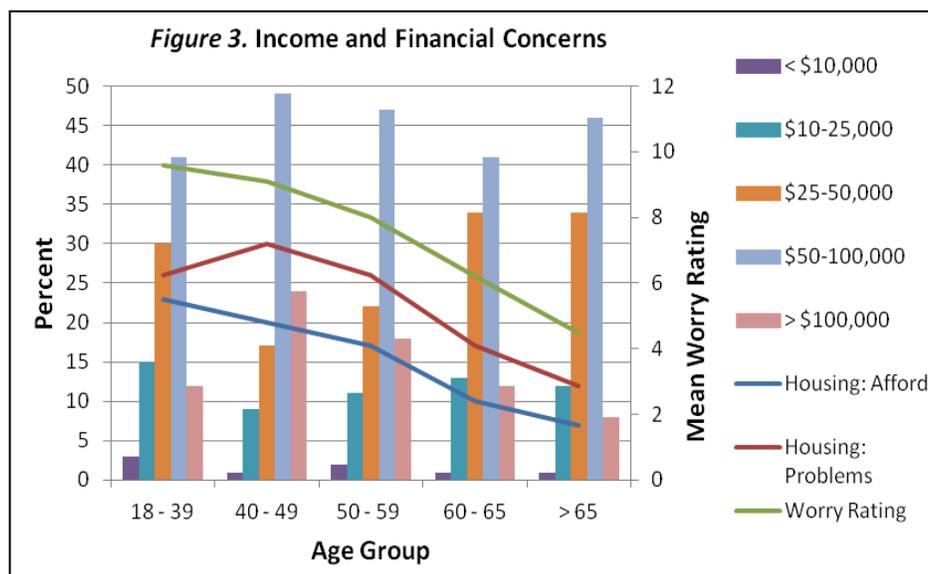
The sample was primarily White (92%), with less than 1-2% each of Black, Hispanic, Native

American, and Asian; this is consistent with WV demographics. Christian was the primary religious preference (29% Evangelical Protestant, 25% Mainline Protestant, and 10% Catholic).

Less than 1% indicated not having a high school degree (all from the oldest age group), and only 10% had not proceeded beyond that degree. About 32% had some college or technical school, 15% had a bachelor's degree, and 16% had completed a master's or doctoral degree. About 50% of the Veterans were currently employed, with 6% being unemployed (and looking for work). Older Veterans were more likely to be retired (33% of the sample) or disabled (11%). Student status was reported by 6% of the Veterans.

#### 4.2 INCOME AND FINANCIAL CONCERNS

**Figure 3** shows annual household income by Age Group, which ranged from less than \$10,000 (2%), \$10-25,000 (12%), \$25-50,000 (27%), \$50-100,000 (45%), to over \$100,000 (14%). There were some differences among the age groups, but no difference by sex in *household income* (this is different from *individual income* and so does not reflect possible income disparities by sex). Over 50% reported income from employment, primarily in the younger age groups. Income from retirement (government pensions: 25%; private pensions: 14%) and Social Security (36%) was more common in the older age groups. One-third of the Veterans, across age groups, reported receiving Veterans benefits or disability income.



**Figure 3** also shows the percentage of Veterans who have financial concerns, including not being able to afford their housing and not being able to live in safe and well-maintained housing. Finally, Veterans rated their general financial worries (e.g., concerns about being able to afford food, clothes, utilities, gas, medical insurance, and medical care). In general, income increased across age, as financial concerns declined. However, over 20% of the two youngest age groups reported problems affording housing and experiencing problems with their housing (e.g., heat, plumbing, and safety).

About 10% of the Veterans reported having been homeless at some time in their adult lives,

most over 5 years ago, this being primarily due to finances/unemployment and mental health issues. About 13% of those who were homeless were women (which is higher than the 8% of the sample who were women), and they appear to be more likely to have had a child with them than did homeless men. Note that these findings are only an initial analysis of the issues surrounding homelessness in this sample of Veterans.

Possessing ones' important personal documents is an important aspect of financial stability. Over 75% of Veterans reported having copies of documents such as their birth certificate (89%), Social Security card (87%), military discharge papers (such as their DD-214; 84%), marriage/divorce papers (79%), medical insurance card (76%), and voter's registration card (76%). Important documents that many did *not* possess included a passport (36%), a last will (47%), and a living will (35%). Older Veterans were more likely to have a will and living will, but less than half reported having these important documents.

Finally, under financial health, we asked about health insurance coverage. Four percent of the Veterans reported not having, or being unsure if they had health insurance (primarily those in the younger groups). Various sources of health insurance included: employer (31%), self-pay (4%), Medicaid/Medicare (22%), TRICARE (25%), and Veterans Affairs (29%). Older Veterans were more likely to have self-pay and Medicaid/Medicare, and also to have long-term care plans (3%), prescription coverage (13%), and dental coverage (14%). TRICARE coverage was equal across age groups; the youngest age group was least likely to have VA coverage.

### 4.3 MILITARY-FRIENDLY CAMPUS

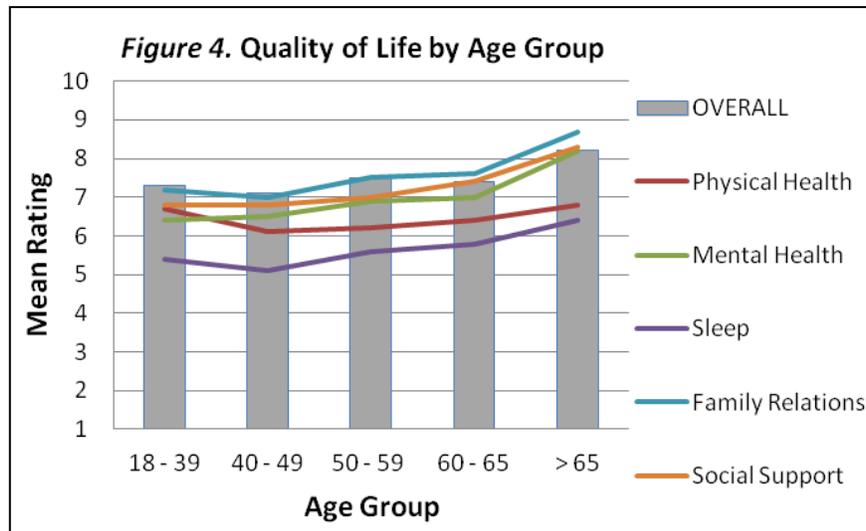
Six percent of the Veterans in the survey are current college students. As the data show, many have completed college degrees over the years. As such, there is a large sample for evaluating the potential impact of recent legislative policy changes concerning Military-Friendly Campuses.

Survey items were developed with several questions in mind: (a) Do colleges and universities offer support for Veterans, such as a Veteran advisor or priority registration; (b) What is the reception of Veterans into the student population by faculty and fellow students?; and (c) How are the Veterans, themselves, adjusting to the campus environment?

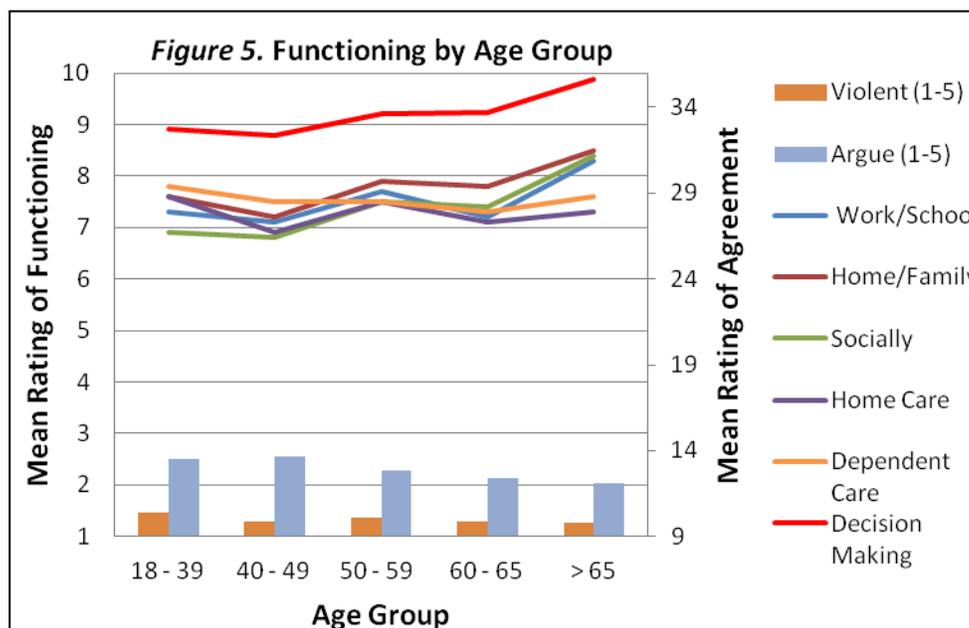
Statements concerning these questions were rated by the Veterans on a scale from 1, *totally disagree*, to 5, *totally agree*. On all items, the average response was 3 (*do not agree or disagree*). We looked at these findings from several perspectives, including the age and era of the Veteran and when they were enrolled at a college or university. The ratings were stable across all analyses, including looking at the most recent and current college student Veterans. As such, it is too soon to evaluate the impact of this legislation and recent Military-Friendly Campus policies.

### 4.4 QUALITY OF LIFE AND BEHAVIORAL RISK FACTORS

The Veterans rated their Quality of Life (QOL) for the past four weeks across five areas and overall, as seen in **Figure 4**. The general trend in all areas, except physical health, is for a several point increase in the ratings from the younger to older age groups. Physical health declines across the first two age groups and is then stable. Sleep quality is rated consistently lower than the other areas. It is important to note that this is *not* an indication that QOL improves with age; rather, this is likely to reflect a host of variables that differ by age group.



Veterans also rated their perceived level of functioning in several areas of their lives, as seen in **Figure 5** (left axis). Home Care (household tasks, home repairs, yard work) and Dependent Care (taking care of children and other dependents) were stable across the age groups; the other areas (Work/School, Home/Family, Socially) tended to improve across age groups. As a measure of Relationship Satisfaction, Veterans rated how well they agreed with their partner (current or most recent) on several issues, such as household finances, leisure activities, household tasks, and raising children. Decision making was rated from *always disagree* to *always agree* (possible scores ranged from 9 to 45). Referring again to **Figure 5** (right axis), agreement on decision making was in the range of *usually agree* on most issues, with older Veterans reporting a greater level of agreement than younger Veterans.



We also asked about the frequency in the past six months of: (a) arguments that included yelling, and (b) incidents of aggressive or violent behavior within the relationship. Both of these were rated from 1 (*never*) to 5 (*very often*). **Figure 5** (*left axis*) shows that, on average, arguments with yelling occurred *sometimes to rarely* and aggressive/violent behavior was rated as *rarely to never* occurring in the prior six months. There was a decline in these ratings across the age groups.

Under Behavioral Risk Factors, we examined reported height and weight to create a Body Mass Index score (BMI; National Institutes of Health). Only 19% of the Veterans fell in the Normal range (BMI of 18.5 to 24.9). Some 43% can be considered Overweight (BMI of 25 to 29.9), and 38% fall into the Obese range (BMI over 29.9). The middle three age groups were more likely to have a BMI in the Overweight to Obese range, although only about 30% of the youngest and oldest were in the Normal range. None of the Veterans qualified as being Underweight. When comparing these rates to Nationwide and West Virginia data from the *2011 Behavioral Risk Factor Surveillance System* (BRFSS; Centers for Disease Control: [www.cdc.gov/brfss](http://www.cdc.gov/brfss)), this group of Veterans has a generally higher rate of being overweight (US: 35.8%; WV: 36.5%) and obese (US: 27.8%; WV: 32.4%).

Thirty percent of the Veterans reported impaired hearing in one or both ears. Impaired vision in one or both eyes was reported in 76%, with 80% reporting a visit to the eye doctor in the past two years. Less than 0.2% reported being deaf or blind. Sixty percent of Veterans reported missing one or more teeth, with most not wearing dentures; 66% reported seeing a dentist in the past year.

We asked whether Veterans were getting a yearly flu vaccine; 35% (mostly older) indicated they had already had the vaccine this year, and 18% more had plans to get it. Younger Veterans were more likely to say they rarely or never get the vaccine (17% overall). Similarly, older Veterans were much more likely to report having had a pneumonia shot at least once, with 44% having done so overall and 75% of the oldest Veterans having had the shot.

We asked Veterans about their sexual attraction. Six percent reported no attraction to either sex, and 88% reported being only attracted to persons of the opposite sex. Attraction to the same sex, exclusively or partially, was reported by 5% of the Veterans. A small number of Veterans reported current same-sex partners.

Sixty-two percent of the Veterans reported having had a test for HIV/AIDS at least once in their lives; 35% had never been tested. Three percent of the Veterans reported being tested and learning that they are positive for the AIDS virus. There was no relation between testing positive for HIV and sex of the Veteran (*i.e.*, the rates were the same for men and women). Those who reported being HIV-positive reported being attracted only to persons of the opposite sex or not to anyone.

Daily caffeine use (over the past 30 days) was 80%, with only 5% indicating not using caffeine during the prior 30 days. Consumption on days when they had a drink with caffeine in it varied from 1 drink (18%), to 2 drinks (26%), 3 drinks (20%), and 4 or more drinks (25%). About 48% of the Veterans reported **not** having used alcohol **in the prior 30 days**; this rate is comparable to the Nationwide BRFSS data (43%), but much lower than the West Virginia rate of 68%. About 13% reported having some alcohol daily over the prior 30 days, 11% several times per week, and 26% several times in that month. Consumption on days when they had a drink with

alcohol in it varied from 1 drink (14%), to 2 drinks (15%), 3 drinks (7%), and 4 or more drinks (17%). Of those who used alcohol in the prior month, over 70% do not feel the need to reduce their consumption. Only 4% of the Veterans reported use of drugs other than those prescribed to them during the past 30 days.

Smoking cigarettes on a daily basis was reported by 16% of the Veterans, with another 5% reporting smoking on some or most days. This total of about 21% is the same as the Nationwide BRFSS data (21%), and is lower than the West Virginia rate of 29%. Fully 32% (primarily the younger age groups) had never smoked. About 27% (primarily the older age groups) had not smoked in over 10 years; as such, the younger Veterans were most likely to be those who are current smokers. Of those who smoke, about half have tried to quit during the past year.

#### 4.5 HEALTH AND HEALTHCARE ACCESS

Veterans were asked for overall ratings of their physical health, physical pain, and mental health (from *poor* to *excellent*) over the prior month. Regarding physical health, 11% rated their health as poor, and 11% as excellent, with the remainder equally distributed across fair, good, and very good. Compared to the BRFSS data, this is a higher rate in the poor health category (US: 4.7%; WV: 8.7%), and a lower rate in the excellent health category (US: 18.6%; WV: 13.4%). Two-thirds of Veterans indicated one or more days over the prior month had been negatively impacted by poor health, lower health ratings being associated with more days being impacted. This did not differ by age group. Ratings of physical pain were skewed towards the *poor* end (47% reported a great deal to a fair amount of pain), with younger Veterans reporting more physical pain than older Veterans. Still two-thirds of Veterans, regardless of age, indicated one or more days over the prior month had been negatively impacted by physical pain.

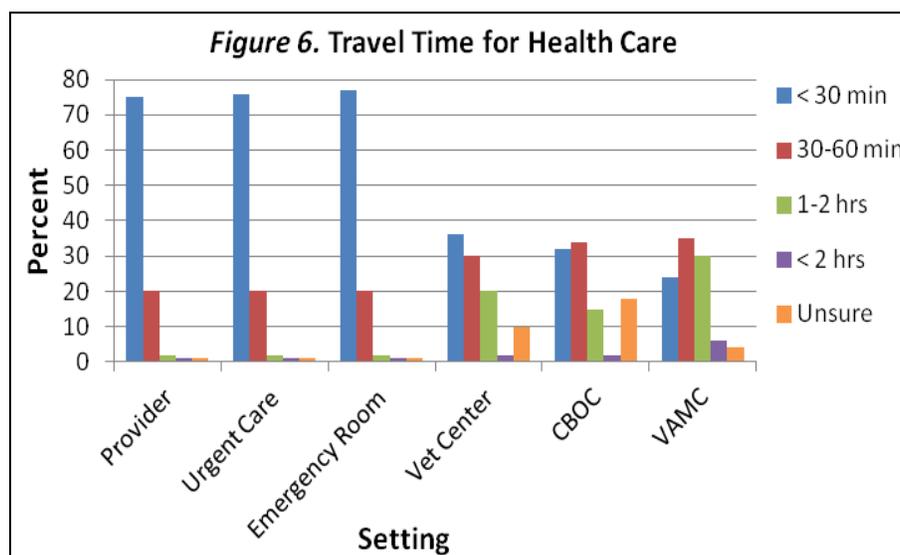
Ratings of mental health were skewed in the opposite direction, as 47% reported very good to excellent mental health. Just over half (55%) of these Veterans reported one or more days in the prior month having been negatively impacted by mental health issues. Younger Veterans rated their mental health lower than did older Veterans and reported more days of poor mental health in the prior month.

Given these perceptions of physical and mental health, we sought to determine the level of access to healthcare the Veterans felt they had. First, we asked the travel time (one way) to different healthcare settings, including a community provider (e.g., private practice), community urgent care, community emergency room, Vet Center, a VA community-based outpatient clinic (CBOC), and a VA medical center (VAMC). **Figure 6** displays the percentage of Veterans reporting different travel times to each setting. The reported travel time is much less to local, community resources (provider, urgent care, or emergency room), with over 70% reporting a travel time of less than 30 minutes. Thirty percent or less reported the various VA facilities being within a 30-minute drive, and about 30% reported a 30- to 60-minute travel time to these facilities. A travel time of one hour or more was reported by some Veterans for Vet Centers (23%), CBOCs (17%) and VAMCs (36%), with 5-17% of Veterans not being sure how long it would take to travel to these VA settings.

It is important to note that about 50% of Veterans reported having visited any VA facility (VAMC, CBOC, Vet Center) for any reason (information, benefits, healthcare) in the past 12 months; an additional 6% reported a visit in the past 1-2 years. However, 25% of the Veterans reported

having **never** been to a VA facility, and 18% had not been in over two years.

There is an association between distance to the VA facilities and the time since a Veteran’s last visit to a VA facility. Simply, the further the distance (or being unsure of the location); the less likely the Veterans were to have gone there in the past year or more.



We asked Veterans to indicate if they had someone they consider as their *personal medical healthcare provider*. A medical healthcare provider in the community was reported by 43% of Veterans, and in the VA by 30%; only 6% reported a personal provider in both settings. Older Veterans were more likely to report a provider in the community. Fully 92% reported seeing a medical healthcare provider within the past 12 months.

Similarly, we asked if they had someone they considered as their *personal mental healthcare provider*. A mental healthcare provider in the community was reported by 11% of Veterans, and in the VA by 20%; only 1% reported a personal provider in both settings. Older Veterans were again more likely to report a provider in the community. One-quarter (24%) of these Veterans reported seeing a mental healthcare provider within the past 12 months.

We further examined the physical and mental health status of the Veterans by asking if they had been told that they had a specific problem or diagnosis by either a provider in the community or in the VA (or both). **Table 1** provides the percentage of Veterans reporting a range of physical health problems. At least one physical health problem was reported by 67% of Veterans (an average of 3.5 problems). Older Veterans reported somewhat more physical health problems than did younger Veterans.

The rates of several physical health problems reported in **Table 1** can be compared, cautiously, to the BRFSS data. In the 2011 BRFSSS survey, the following percentages (Nationwide, WV) reported having been told they have: (a) diabetes: 9.5%, 12%; (b) high blood pressure: 30.9%, 37%; and (c) heart attack: 4.4%, 6.2%. The results from the current survey generally show higher rates of each of these three physical problems among these Veterans, as compared to both Nationwide and WV data.

We separately asked about the diagnosis and treatment of any form of cancer. About 14% of Veterans reported having cancer, including cervical, ovarian, skin, colon, prostate, thyroid, and lung cancer. This is about **twice** the rate of cancer reported in the BRFSS, both Nationwide and for West Virginia. Various stages of treatment were described, from newly diagnosed to being cancer-free for 10 years.

<b>Table 1. Category of Physical Health Problem</b>	<b>Percent Reporting</b>
<b>Specific Physical Health Problems</b>	
High blood sugar, diabetes	17%
High blood pressure	40%
High fat or cholesterol in blood	40%
Overweight, obese	27%
Heart attack	6%
Traumatic brain injury	4%
Hearing loss or ringing in ears	33%
<b>Physical Health Problems by Bodily System</b>	
Circulation of blood: Heart disease, poor blood flow in arms and legs, hardening of arteries	15%
Breathing or lungs: Asthma, emphysema, black lung, low oxygen, other lung problems	14%
Stomach or digestion: Ulcer, acid reflux, colitis, burning in throat, intestines, irritable bowels	27%
Muscles or bones: Arthritis, rheumatism, back, knees, shoulder, torn muscles or ligaments	40%
Nervous system: Seizures, headaches, migraines, brain, spine, phantom limb pain	13%
Kidneys, liver, or bladder: Problem urinating, infections, poor function, cirrhosis	11%
Skin: Rashes, allergy, unhealed wound, sores	16%
Sexual and genital: Pain during sex, impotent, hysterectomy, do not get excited or aroused	7%
Immune system: Leukemia, lymph nodes, HIV infection, AIDS, MS	2%

**Table 2** displays the percentages for reported mental health problems. At least one mental health problem was reported by 34% of Veterans (an average of 1.1 problems), with younger Veterans reporting more mental health problems than older Veterans. The rate of depression is somewhat higher than the BRFSS data for the Nationwide sample (17.5%), and similar to the WV data (20.1%).

We followed up these questions by asking if the Veteran was being treated for identified health problems and by whom, a community or VA provider. For identified medical problems, 40% of Veterans said they were receiving treatment from a community provider, and 31% from a VA provider. The percentages were 15% and 20% for treatment of identified mental health problems by a community or VA provider, respectively. These percentages parallel those for

describing the setting of Veterans’ personal medical and mental health care providers.

<b>Table 2. Category of Mental Health Problem</b>	<b>Percent Reporting</b>
Sleep: Cannot sleep, insomnia, sleepwalking, night terrors, cannot stay awake	21%
Depression or mania: Sadness, depression, suicidal, manic, bipolar, schizoaffective	22%
Posttraumatic stress disorder: PTSD, acute stress disorder	17%
Anxiety problems: Panic, phobia, obsessive compulsive/OCD, general anxiety, agoraphobia	17%
Problems controlling self: Anger, gambling, rage, impulsive	11%
Substance abuse or dependence: Abuse or addiction to alcohol, prescription drugs, "street" drugs	5%
Attention and behavior: Adult ADHD, attention deficit, hyperactivity, conduct problem	4%
Personality problems: Borderline, antisocial, narcissistic, schizotypal, paranoid, avoidant, histrionic	4%
Senile dementia: Alzheimer’s, delirious, senile	1%
Schizophrenia or psychosis: Hallucinations, delusions	2%

Approximately 20% of the Veterans indicated having been told they have PTSD. We asked these Veterans ( $n = 189$ ) what forms of treatment they had received for PTSD. Focusing on treatment through a VA facility, 67% reported therapy in the following formats: 59% individual therapy, 28% group therapy, 17% couples/family therapy, and 12% inpatient therapy. Specific modalities included: 59% medication, 22% anger management, and 20% relaxation. Less than 10% specifically reported cognitive therapy, cognitive-behavior therapy, or exposure-based therapies, despite these being the empirically supported and recommended interventions. *(While many forms of therapy include one or more symptom management strategies, these latter therapies typically also focus very directly on the traumatic events one has experienced.)* These figures concerning modalities must be treated with caution as individuals may not know the actual names of the treatments they are receiving.

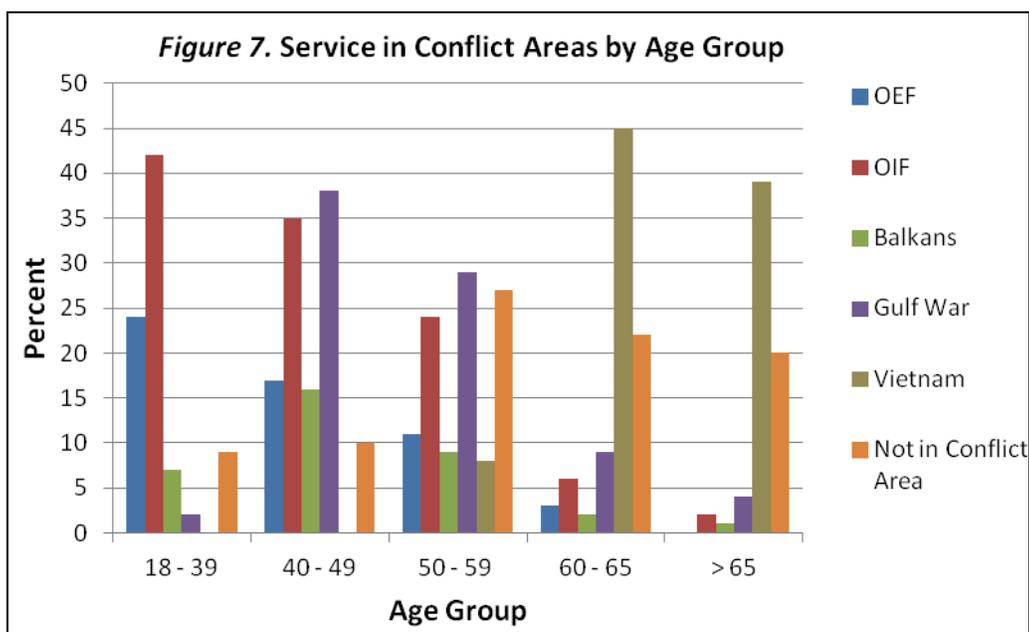
Traumatic Brain Injury (TBI) is a significant problem for military personnel, with special concern for those experiencing concussive blasts. Over 60% of the Veterans reported a hit to the head or a head injury at least 1-2 times in their lives; 36% reported 3 or more such hits. Questions addressed head hits and injury as a child and as an adult other than in the military. Focusing on head hits/injuries while in the military, the following mechanisms of injury were reported: 21% explosions (e.g., grenade, artillery, IED), 5% head wounds (e.g., shrapnel, bullets), 15% head hits (e.g., falling objects, punch), 13% falling from a high place, 11% motor vehicle crashes, and 5% sports injuries. Reported symptoms post-concussion included loss of consciousness, being dazed and confused, trouble remaining awake or alert, and not remembering the event. Given these rates of injury, the number of Veterans reporting that they are receiving treatment for TBI appears low, with fewer than 80 reporting some form of treatment. This is, however, a complicated issue as the impact of TBI is greatly influenced by the force, location, and frequency of injuries.

Finally, about 42% of the Veterans reported having a service-connected disability, ranging from 0-100% disability rating (about evenly distributed across that range). Fourteen percent

indicated not having applied as they were unsure if they qualified, and 10% indicated not knowing about service-connection. A small number reported being in the process of applying (3%) or having applied and been rejected (4%). A wide range of service-connected conditions were reported, the most likely being: 16% hearing loss or tinnitus, 13% muscles or bones (arthritis, injuries), 9% PTSD, 5% high blood pressure, 5% depression, 4% anxiety, 4% diabetes, 4% nervous system, 4% conditions related to Agent Orange, 3% skin disorders, 3% conditions related to combat injuries, 2% chronic illness relate to the Gulf War, 1% vision loss, and 1% TBI.

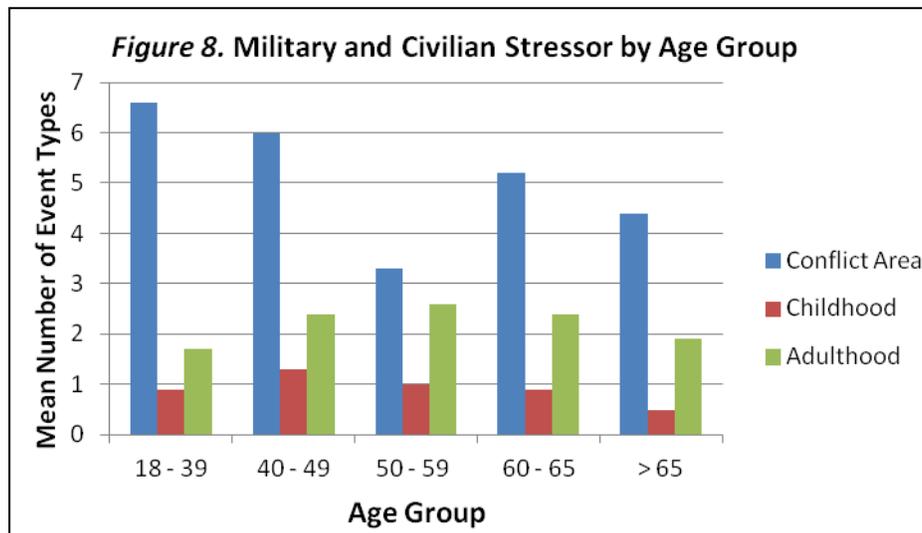
#### 4.6 MILITARY HISTORY AND EXPOSURE TO STRESSORS

**Figure 7** presents the service of Veterans in different conflict areas, by age group. As would be expected, younger Veterans served primarily in OEF and OIF, and older Veterans served primarily in Vietnam. Not shown in **Figure 7** are the Veterans over 65 years of age who served in Korea (10%) and World War II (5%). About 16% of Veterans were not deployed to a conflict area during their time in military service.



A total of 770 Veterans completed the section on exposure to stressors associated with service in a conflict area. There were 18 items on this scale, including being fired upon, firing weapons, explosions (artillery, IEDs), seeing injured and dead soldiers and civilians, etc. Scores indicate the *number of types* of events to which a Veteran was exposed, *not* an actual count or number of exposures (*i.e.*, being fired upon ten different time's counts as exposure to one type of event, not ten exposures). Consistent with **Figure 7**, many Veterans did not serve in conflict areas and were not directly exposed to these types of events, and some who did serve in these areas were not directly exposed. On average, Veterans were exposed to five of these types of events, with younger Veterans reporting higher exposure than older Veterans (**Figure 8**). The lower exposure in the 50-59 Age Group may be related a higher percentage of Veterans in this age range not having service in a conflict area.

**Figure 8** also provides the mean number of types of events the Veterans experienced as a child (less than 18 years old) and an adult (not during military service). The civilian events scale included ten events, such as natural disasters, transportation accidents, assault, and abuse/neglect. The number of childhood events is similar across the age groups. The increase in adulthood events over the age groups is likely related to simply being older and having more time to experience more life events.



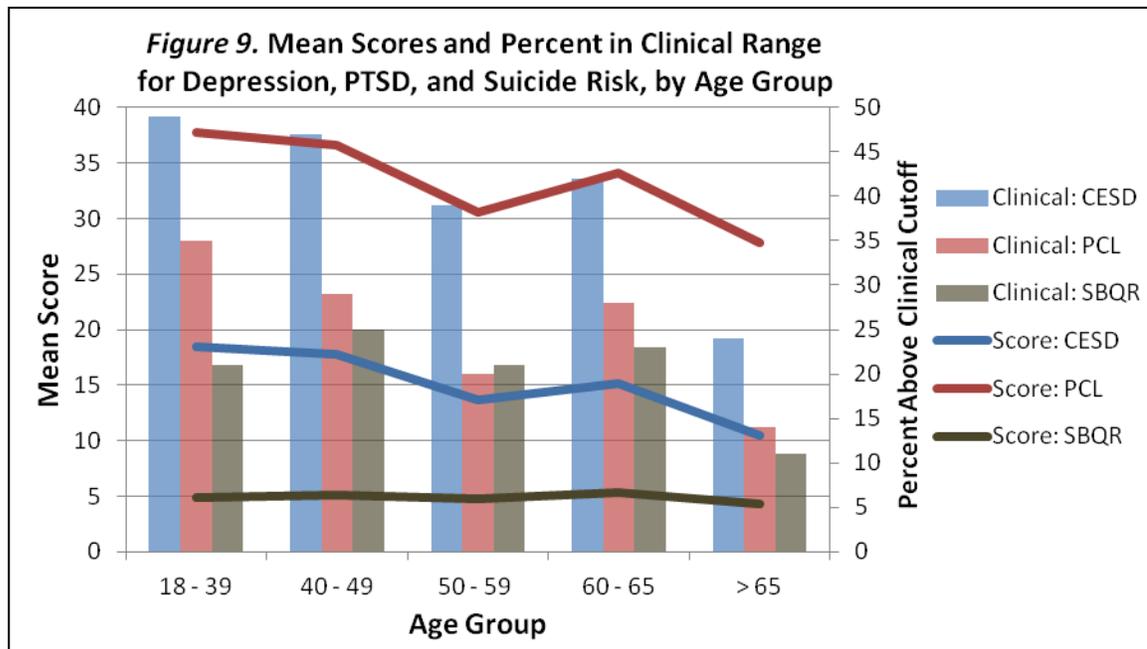
Lastly, we addressed the issue of military sexual assault. A small number of Veterans, an equal number of males and females, reported having experienced sexual harassment ( $n = 62$ ) and sexual assault ( $n = 25$ ) while in the military. The low numbers require caution in further interpreting the findings. On average, the 25 persons reporting military sexual assault experienced 2.5 assaults, and the assailants were nearly all male regardless of the sex of the victim.

#### 4.7 DEPRESSION, PTSD, AND SUICIDE RISK

The last section of the survey evaluated symptoms of depression, posttraumatic stress disorder, and suicide risk. Depression was measured with the Center for Epidemiological Studies Depression Scale (CES-D), on which the scores can range from 0 to 60; scores of 16 or higher suggesting clinical depression. PTSD was evaluated with the PTSD Checklist (PCL) on which scores range from 16 to 85; scores of 44 or higher suggest a clinical level of PTSD. Finally, suicide risk was evaluated with the Suicide Behavior Questionnaire-Revised (SBQR), on which scores can range from 3 to 18; a score of 7 or higher suggests a significant risk for suicide.

**Figure 9** presents the results for these three measures, by age group. There was no difference by sex on these measures. The lines (*left axis*) depict the mean scores for depression, PTSD, and suicide risk. All scores are higher for the younger Veterans than the older Veterans. Overall, 40% of the Veterans met the clinical cutoff (bars, *right axis*) for depression, 25% for PTSD, and 20% for suicide risk. To compare these results to the 2007-2008 Survey of WV Veterans, which focused on those who served in OEF and OIF, the percentage of Veterans experiencing clinical levels of PTSD and/or depression is at 50% for the two youngest age groups, showing consistency across the two surveys.

These are rather high rates of depression and/or PTSD. The scores on these self-report measures suggest rates somewhat higher than the rates at which these Veterans are reporting having been told they have depression or PTSD. This is not a simple matter of “under-diagnosis” by providers; this can reflect the difference between self-report scales and a full diagnostic interview, and Veterans not reporting their symptoms for various reasons, among other reasons.



There also is a high percentage (20%) of individuals *at significant risk for suicide*, based on the cut-off score on the SBQR. (We note that the survey included suicide hotline numbers and other resources at the point in the survey that questions about suicide were being asked.) It is difficult to compare these findings on **suicide risk** (as compared to suicide attempts and completions) to general population rates and other studies of Veterans due to the wide range of measures that have been used to evaluate suicidal ideation and suicide risk and the characteristics of the samples (general population, psychiatric samples, Veterans who are seeking treatment). The rate found here is much higher than several general population studies (about 5%) and a general sample of active duty Military personnel (6%), and it is comparable to a sample of active duty Military personnel who are seeking treatment for PTSD and/or depression (23%). As such, this 20% rate of significant risk for suicide is of serious concern.

A series of correlation analyses show strong positive correlations among the scores for depression, PTSD, and suicide risk; and these scores are all positively correlated with risk factors such as combat exposure, and exposure to traumatic stressors in childhood and adulthood.

Of greater concern are the consistent correlations among depression, PTSD and suicide risk

with a host of other variables examined in this survey. Higher depression, PTSD, and suicide risk are associated with lower quality of life scores, lower levels of functioning, less agreement within relationships, more arguing and violence in relationship, and lower income. Further, higher levels of depression, PTSD, and suicide risk are related to lower ratings of health and mental health, and more physical pain, as well as to more days impacted by poor physical and mental health and pain. Higher scores on these three mental health measures are associated with more physical and mental health problems, as told to the Veteran by health care providers. Lastly, higher scores on these three key measures are related to more concerns and worries over finances, housing affordability, and the number of problems with housing.

These multiple relations between the key measures of mental health (depression, PTSD, and suicide risk) and overall functioning and physical health are to be treated with some caution. It cannot be assumed that there are causal relations here; that is, we cannot assume more depression leads to more physical health problems. Nor can we assume the opposite direction of more health problems lead to more depression. Looking at the entire picture, we can see that a significant number of Veterans are facing a myriad of difficult problems that are likely all interacting and potentially exacerbating each other. The question then becomes as to where to intervene, how, and in what order.

## 5. SUMMARY

A consistent finding throughout all results is that of differences across the age groups, particularly with regard to physical and mental health, quality of life, and functioning. One might expect older Veterans to have more physical health problems due to aging. However, it is also seen here that older Veterans, as compared to younger Veterans, report somewhat better mental health (less depression, less PTSD, and lower suicide risk) and better quality of life.

This study is a *cross-sectional view* of Veterans at different ages. It is not a *longitudinal study* in which we followed a sample of Veterans from prior to their military service to post-retirement. There are many factors that may be related to the differences in the age groups, *none of which is the simple passage of time*. Veterans of different ages grew up in different times, under different circumstances, and experienced different military conflicts and forms of deployment. No war is “easier” than another, but deploying with a large unit (such as in WWII and Korea) versus small forces or individually (such as in Vietnam and OEF/OIF) may play a role. This study sought to determine how each age group was faring, what their particular issues might be, and how they could be uniquely addressed.

The study sample well represents five age groups and their related service eras and conflicts. Women are represented at numbers similar to the rates of service for their respective eras. This appears to be a generally well-educated sample, with only 10% not have gone beyond high school. Reported income is generally good. However, the incomes are not adjusted for family size and poverty level, and some 10-15% of each age group report income under \$25,000 or even under \$10,000. General financial worries and concerns about affording housing are partly related to income; there is likely a role for the current economic recession in these concerns. Concerns over the quality and safety of housing are also evident.

Quality of life and related indicators generally fall in the mid-range or slightly higher. Although we see age group differences, we do not know how this group of Veterans compares to non-

Veterans on many of these measures; we were able to make some comparisons to the BRFSS data, however. We can see that this sample has multiple behavioral risk factors that may be impacting the health of these Veterans. First among these risk factors is the high rate of obesity as determined by the body mass index (BMI). Further risk factors are caffeine and alcohol use, and smoking. Alternately, the percentage of Veterans who report seeing a healthcare provider on a regular basis (1-2 times a year) is high, but so is the reported number of physical health problems.

The mental health of a high percentage of these Veterans is of concern. Over 40% meet the cutoff for clinical depression, and 25% for PTSD. One in five of these Veterans is at significant risk for suicide, according to the self-report measure. This is not solely the result of Veteran status, combat exposure, and depression, although these factors play the most important roles. As noted, the combination and reciprocal interactions among mental health, physical health, quality of life, financial concerns, relationship stress, and exposure to a range of combat and civilian stressors is a complicated and incredible weight to bear.

About 15% to 20% of these Veterans are receiving mental health treatment; however this figure is significantly less than the number (about 50%) who are reporting mental health concerns. This suggests a great unmet need for mental health services. We did not evaluate here the effectiveness of mental health treatments that are being received. We did ask those who indicated being in treatment for PTSD what they were receiving. The primary interventions were medication and individual therapy (59% each); however, it is not known what those medications were or what therapeutic modality was being used in individual therapy. Very few Veterans reported the interventions that are empirically supported for use with PTSD (exposure, cognitive-behavior therapy). Further, the number of Veterans with possible TBI (based on their reported experiences and symptoms) is much higher than the number who report receiving some form of treatment for TBI.

If we are to extrapolate the findings of this survey to the over 170,000 Veterans in the State of West Virginia, the needs across the board – finances, housing, physical health, mental health – seem rather overwhelming. What course of action, then, can be taken?

## 6. RECOMMENDATIONS

The recommendations included in this report should be considered not only based on the findings of this survey but also within the context of the WV military Veteran population. Based on the VetPop data of 2007 and reported on 9/30/2010, 74.8% of West Virginia's Veterans are combat Veterans. In addition, WV has one of the highest rates of VA enrollments among all states for a variety of benefits including healthcare and compensation benefits.<sup>3</sup> The high number of combat Veterans represented in the survey directly relates to the high rate of combat Veterans in the state. Additionally, the rate of enrollment in the VA could be related to the number of disabled Veterans in the state and those who meet low income eligibility criteria for VHA benefits. Given this backdrop and the findings of this study, it is clear that our Veterans need specific and directed services to address their multiple areas of need.

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<sup>3</sup> [http://www.va.gov/vetdata/Veteran\\_Population.asp](http://www.va.gov/vetdata/Veteran_Population.asp) accessed 12/17/2012

***Risk of Suicide and Prevention:***

- 1) As reported above, one in five of the respondents to this survey scored high on the self-reported suicide risk indicators. In addition, these individuals report a complex combination of depression, PTSD, and other mental health concerns; issues related to physical health; quality of life; financial concerns; relationship stress; and exposure to a range of combat and civilian stressors. The Study Team recommends a multi-focused strategy to better serve Veterans and their families.
  - a) The Legislative and Executive Branches should direct funding to the State Department of Veterans Assistance to develop and implement this multi-focused strategy. This strategy should include a public service campaign to educate the general public about suicide among the Veteran population and that this issue is a public health concern for all our citizens, not just the VA. A part of this campaign should be directed to existing mental health and healthcare providers, alerting them to the signs of suicide risk and the health and mental health symptoms unique to combat Veterans.
  - b) The Legislative and Executive Branches should direct funding to the State Department of Veterans Assistance to hire additional social work case managers to better cover geographic areas of the state, and direct existing and new personnel to work with the OEF/OIF Veteran coordinators at each of the state Veterans Affairs Medical Centers Community Based Outpatient Clinics and Vet Centers engaged in suicide prevention and counseling services.
  - c) The Legislative and Executive Branches should direct funding to the State Department of Veterans Assistance to hire a state licensed and clinically experienced mental health professional to provide clinical supervision of the social work case managers employed by the State Department of Veterans Assistance. The role of this position would be to oversee case management activities, provide training, and coordination between the State Department of Veterans Assistance, the US Department of Veterans Affairs facilities and programs in West Virginia, and the mental health professional community in the state to increase and enhance the mental health services available to the state's Veterans and military service personnel and their family members.
  - d) The State Department of Veterans Assistance through the coordinator of mental health services within the Department (as cited above) should develop, implement and oversee specific awareness and training for health and mental health providers and clergy in the most effective methods to support parents, grandparents, spouses, and children of combat Veterans.

***Addressing the need for increased mental health services:***

- 2) The Study Team recommends that the Legislative and Executive Branches provide additional support to the State Department of Veterans Assistance to engage in coordinated wrap around services that address the needs of younger combat Veterans for employment, education, training, and housing.
  - a) These services should be evidence-based, including supported employment services and cognitive behavioral therapies.
  - b) These services should coordinate with the state colleges and universities that have Veteran support programs.

***Addressing the needs of homeless Veterans and those at risk for homelessness:***

Combat Veterans and those with a mental illness are at greater risk for chronic homelessness. One third of the nation's homeless population is made up of Veterans. Current economic conditions have created increased risk for homelessness among Veterans. There are a variety of programs within the VA and the Housing and Urban Development authority (HUD) to assist homeless Veterans and those at risk; however these programs have a limited reach into small towns and rural areas.

- 3) The Study Team recommends that the Legislative and Executive Branches work with the State Department of Veterans Assistance and VA Homeless Program Coordinators within the state to seek an increase in the number of federal housing vouchers available to the HUD-VA Supported Housing (HUD-VASH) program in rural areas and small towns in the state. Central to this recommendation is to develop strategies as to how the Legislature, Executive Branches and state public housing authorities can work together to advocate for increased HUD-VASH vouchers for the state of West Virginia.
- 4) The Study Team recommends the Legislative and Executive Branches direct funding to the West Virginia Association of Free Clinics (WVAFC) to support a study of all free clinics and sliding fee scale or income based clinical service programs in WV to determine the number of Veterans and homeless Veterans served in these programs statewide. At a minimum this study should include the socio-demographic, health, mental and oral health status of these Veterans. The focus of the study should be to determine if increased coordination around VHA eligibility education and services between the free clinics in the state and the state and federal Veterans services programs is needed. If such coordination is merited the Study Team recommends the Legislative and Executive Branches provide additional funding to the free clinics to support such coordination.

***Income and Financial Concerns:***

- 5) The Study Team recommends that the Legislative and Executive Branches give consideration to re-opening the state bonus program for those who are eligible but were unaware of the program in order to make application before the closure of the program.

***Addressing Military-Friendly Colleges and Universities:***

- 6) The Study Team recommends that the Legislative and Executive Branches through the Joint Committee work with the Higher Education Policy Commission to set a schedule to study the impact of legislation to encourage the growth of military-friendly colleges and universities in the state. This assessment should include the retention and graduation rates of Veterans and the Veterans' and family members' satisfaction with the services provided by these higher education institutions. This study should also include an inventory of both state and federal funds received by these institutions to provide military-friendly services and the need for any increase of such funds.